

**Confirmed Minutes of the 202nd Meeting of
the Advisory Council on the Environment
held on 15 December 2014**

Present:

Prof Paul LAM, SBS, JP (Chairman)
Prof CHAU Kwai-cheong, BBS, JP (Deputy Chairman)
Dr Gary ADES
Mr Oscar CHOW
Dr Billy HAU
Dr HUNG Wing-tat, MH
Prof John NG
Miss Yolanda NG, MH
Dr Alfred TAM
Prof Nora TAM, BBS, JP
Dr Eric TSANG
Prof Jonathan WONG, MH, JP
Mr Luther WONG
Ms Pansy YAU
Prof Ignatius YU
Mr Andrew LAI (Secretary)

Absent with Apologies:

Dr Dorothy CHAN, BBS
Prof FUNG Tung
Prof LI Xiang-dong
Mr Anthony LOCK
Dr Carrie WILLIS, SBS, JP
Prof Ray YEP
Dr Eric YIP

In Attendance:

Dr SO Ping-man	Assistant Director (Conservation), Agriculture, Fisheries and Conservation Department (AFCD)
Mr. CHAN Wai-shun, Wilson	Assistant Director of Planning/ Technical Services, Planning Department (PlanD)
Ms Esther LI	Principal Information Officer, Environmental Protection Department (EPD)
Miss Evelyn LEUNG	Chief Executive Officer (CBD), EPD

Ms Daicie TONG

Executive Manager (CBD), EPD

In Attendance for Item 3:

Ms WONG Ming-wai, Winnie	Principal Assistant Secretary (Transport) 3, Transport and Housing Bureau (THB)
Mr TAM Hon-choi	Government Engineer/ Railway Development 2, Railway Development Office, Highways Department (HyD)
Mr WAN Kin-hung	Ag. Chief Engineer/ Railway Development 2-2, Railway Development Office, HyD
Mr CHU Wing-kuen	Engineer/ Technical Services(5), Railway Development Office, HyD
Mr Freeman CHEUNG	Senior Vice president, Greater China, AECOM Asia Co Ltd. (AECOM)
Mr Perran COAK	Technical Director, AECOM
Mr Laurent CHEUNG	Associate Director, AECOM
Mr Karl CHEUK	Associate Director, MVA Hong Kong Ltd.

Action

The Chairman informed Members that apologies for absence had been received from Dr Dorothy Chan, Prof Fung Tung, Prof Li Xiang-dong, Mr Anthony Lock, Dr Carrie Willis, Prof Ray Yip and Dr Eric Yip. He welcomed Mr Wilson Chan, Assistant Director of Planning/ Technical Services, Planning Department (PlanD) who had replaced Mr C T Ling in attending ACE meetings. The Chairman also advised that Ms Anissa Wong, Permanent Secretary for the Environment/ Director of Environmental Protection was on a duty visit to Japan and could not attend the meeting.

Item 1 : Confirmation of the draft minutes of the 201st meeting held on 13 October 2014

2. The draft minutes were confirmed without amendments.

Item 2 : Matters arising

3. The Chairman advised that a site visit on the environmental mitigation measures introduced by the MTR Corporation Ltd. (MTRC) was originally planned on 10 November 2014. The visit was deferred as MTRC had an unexpected commitment on that day. MTRC advised that in view of their various heavy commitments in the period, the site visit for ACE could only be arranged in early 2015. The Secretariat would liaise with MTRC and keep Members informed on the arrangement.

Secretariat

Item 3 : Railway Development Strategy 2014
(ACE Paper 11/2014)

4. The Chairman informed Members that the Council would discuss the Railway Development Strategy 2014 (RDS-2014) and the Strategic Environmental Assessment (SEA) for the “Review and Update of the Railway Development Strategy 2000 (RDS-2U)” prepared by the Transport and Housing Bureau (THB) which provided a planning framework on the expansion of Hong Kong’s railway network up to 2031. With regard to the SEA for the seven railway projects proposed in the RDS-2014, the Chairman suggested Members to take a holistic approach in examining the overall concept and strategy on railway developments instead of focusing on the details of how individual projects would be implemented. He advised that if there were firm plans to take forward individual railway projects, project-specific Environmental Impact Assessment (EIA) studies would be carried out in accordance with the EIA Ordinance. Respective EIA reports would be prepared and submitted for consideration by ACE in due course.

5. In response to a Member’s enquiry about the background and purpose of a SEA study, the Secretary explained that for mega projects such as railway developments having considerable cumulative impacts on a wide range of environmental aspects under the EIA Ordinance, EPD would encourage the project proponent to conduct a SEA study and identify the potential environmental impacts from a macro and strategic angle at an early stage. Comments and insights collated with respect to the SEA study would be taken into account before the project proponent proceeded to individual EIA studies. He stressed that project-specific EIA studies would be conducted in strict accordance of the EIA Ordinance. ACE would be invited to give views on the relevant EIA reports under the established mechanism.

6. A Member was concerned about the efficacy of the discussion on the way forward of the RDS-2014 without having reference to the full version of the SEA report. He also suggested to forward ACE’s observations and comments on the SEA to the Environmental Assessment Division (EAD) of EPD for reference so as to facilitate the subject teams to formulate the scope of the respective EIA Study Brief as appropriate. Another Member opined that the SEA report should be a more macroscopic study allowing the Government to consider all alternatives on the provision of public transport other than railway developments on the territory-wide basis.

7. The Chairman noted Members’ concerns. He advised that THB would present an overview and concept of the railway development strategic study. ACE would have the opportunity to give views on individual EIA

projects in due course having full regard to the detailed findings in the EIA reports of the respective projects. The Secretary assured that Members' comments and the minutes of today's meeting would be issued to the EAD of EPD so that they could prepare for the scoping of individual EIA Study Brief. He added that while Members would not be invited to approve or disapprove the SEA report, they could raise observations and comments on key issues which they would like THB/HyD to review and improve on when they prepared the EIA studies on individual railway projects.

8. The Chairman said that the discussion would be divided into two parts. The Presentation and Question-and-Answer Sessions would be opened to the public while the Internal Discussion Session would remain closed.

[The presentation team joined the meeting at this juncture.]

Presentation Session (Open Session)

9. Ms Winnie Wong of THB gave an overview on the RDS-2014 and Mr Freeman Cheung briefed Members on the details of the SEA and the environmental benefits of the proposed railway developments with the aid of a powerpoint presentation. The SEA had concluded that none of the proposed new railway projects would present insurmountable environmental problems. Potential environmental impacts of individual projects would be further addressed during their respective design and development processes. Each of the new railway proposals would constitute a Designated Project under Schedule 2 of the EIA Ordinance. An EIA study would be undertaken in due course and an Environmental Permit would be required before the construction works of the railway projects could commence. Further public consultation would be undertaken prior to the implementation of the new projects.

Question-and-Answer Session (Open Session)

10. The Chairman asked about the status of the SEA report and its availability to the public. Ms Winnie Wong explained that the SEA was not a statutory study, but it assessed the potential environmental impacts of the proposed new railway projects in a broad-brush manner. The full SEA report served as part of the RDS review which did not require any approval or endorsement. The report was not made public. Ms Wong reiterated that the seven railway proposals were all designated projects under the EIA Ordinance, and EIA study for individual railway projects would be undertaken during the design and planning stages. Views and comments of ACE and members of the public would be sought when individual projects entered the EIA stage.

11. In response to the written questions raised by a Member before the meeting, Mr Freeman Cheung first explained the three-stage methodology in conducting the SEA. He also added that preliminary site walks had been carried out in the areas of the proposed options during the data collection and review stages. Mr Cheung said that detailed ecological surveys had not been conducted at this stage, but stressed that comprehensive site surveys and monitoring on possible environmental impacts would be conducted in the EIA studies in future. As regards the noise impact, Mr Cheung said that the UK Calculation of Rail Noise (CRN) standards were adopted in evaluating railway noise, and noise sensitive receivers had been identified in areas and buildings which might be affected along the alignments during the operation phase. On green house gas (GHG) emission, the calculation method similar to that in the “Guidelines to Account for and Report on Greenhouse Gas Emission and Removals for Buildings” was applied. The Emission Factor (EMFAC) standards were adopted to estimate the emission of air pollutants, while the quantity of construction and demolition (C&D) wastes was roughly calculated based on the diameter of the tunnels to be constructed. In this regard, Mr Cheung assured Members that the “avoidance” principle would be on top of their agenda, and active waste management practices would be implemented to minimize C&D generation as well as maximizing their recovery and re-use. They would work closely with the Public Fill Committee of the Civil Engineering and Development Department to review a practicable timetable with reference to future reclamation such as development projects in Tung Chung and Tuen Mun as well as tunneling works. Mr Cheung added that further avoidance options for alternative alignments and construction methods would be investigated at the detailed design stage during individual EIA studies.

12. A Member suggested THB to adopt a more strategic approach and consider setting out relevant recommendations and good practices for individual projects at the outset, particularly on the aspects which involved cumulative impacts such as balancing the intake and output of waste materials before firming up on the alignments. He stressed that THB should have spelt out clearly in the SEA study the relevant principles and recommendations for each project such as the requirement on the re-use of cut-and-fill materials on-site in order to actualize the waste minimization efforts. Ms Winnie Wong replied that they were mapping out the blueprint of the railway developments at this stage and the exact alignment of each project had yet to be decided. She assured Members that endeavors would be made to avoid and minimize the potential environmental impacts of the projects as far as practicable before confirming the final alignments and mitigations measures to be adopted in the next stage.

13. A Member welcomed the overall concept of the RDS-2014. He opined that there should be a paradigm shift as the new railway projects could be so implemented to bring along positive contributions to the

environment as against the traditional view that railway developments inevitably would impact the environment negatively. The Member said there could be a close interface between the immediate surrounding and the building of the new railway structures as an integrated urban design, especially for those located in new development areas (NDAs) which should cater for the concept of new environment-friendly neighbourhoods, public open spaces as well as spatial arrangements for vehicular and pedestrian circulation. He considered that the station design should incorporate the concept of local culture and heritage treasured by the local community. As regards the visual impact, the Member quoted the example of Wong Chuk Hang Station and railway structure which had major visual impact to the city given the sheer size and mass of the structures. Design could be enhanced and be visually more beneficial to the surrounding cityscape. Considerations should also be given on how different green features could be integrated in the design of above-ground structures so as to enhance the urban landscape at an early planning stage. He echoed a Member's view regarding the re-use of fill materials on-site. He also explained the concept of green construction promulgated in the BEAM Plus which included reducing exporting materials, promoting recycling and enhancing the use of materials which were advantageous to the environment. The Member remarked that to secure better design and performance in the RDS-2014, THB should consider formulating the overarching principles and objectives for the EIA studies on railway projects, and to set out the key planning criteria and design requirements at the tender stage for compliance and follow up by the successful consultants. He stressed that these principles should be laid down at the beginning of the development and planning stages rather than at the subsequent implementation stage.

14. Ms Winnie Wong thanked the Member for his observations on the RDS-2014. She also agreed that they could work towards a better integration of the design with the neighbourhood given that there would be both underground and elevated sections of structures in different alignments.

15. In response to the Chairman's enquiry about the nature of the SEA in relation to the subsequent EIA studies and whether the SEA report would in turn be further reviewed and updated, Ms Winnie Wong said that while the SEA which was not a mandatory requirement, it was conducted to give a broad overview of the RDS-2014 to identify whether any of the new railway proposals would present insurmountable environmental problems. She advised that while the SEA would not be further reviewed as such, they would proceed to the next stage and conduct detailed EIA studies for the individual projects. Mr Freeman Cheung supplemented that RDS-2014 was the SEA study which encompassed the first SEA conducted in 2000 and updates under the RDS-2U.

16. The Chairman remarked that the SEA study with a “strategic”

notion might have raised Members' expectation that the study would provide a comprehensive analysis in planning and addressing the environmental impacts of the new railway proposals. A Member echoed that he expected that the SEA would look into the cumulative effects of the aggregate railway proposals which would balance their designs as necessary and incorporate aspirations of the community which would impact on road networks, local population and provision of community facilities. Regarding the impact on the 5.6 ha of ecological sensitive habitat, the Member asked whether there would be impacts on the habitat caused by other projects in the areas concerned in the coming 20 years from a strategic perspective. He was also concerned whether any urban parks would have to be "sacrificed" to make way for the proposed alignments. He commented that there was a lack of a strategic view to look for any alternatives other than railway developments, given that EIA studies had mostly been criticized for failing to adequately take into sufficient account of the cumulative environmental impacts vis-à-vis previous and concurrent projects on the territory-wide basis.

17. Mr Freeman Cheung took note of Members' comments on devising the RDS-2014 on a territory-wide basis and explained the practical difficulties involved by quoting the example of the handling of fill materials. He pointed out that the RDS-2014 was planned for the coming 15 to 20 years, which inevitably might encounter a number of uncertainties and changes. On the impact on urban parks, Mr Cheung said that there could be encroachment into a part of the Victoria Park by the proposed North Island Line. The concerned District Councils and the affected stakeholders would be engaged to gauge their views. Members' comments and observations raised at today's meeting were very helpful and would be taken on board when they proceeded with further planning work.

18. In reply to a Member's enquiry on whether the links from Kam Sheung Road to Lok Ma Chau and Kwu Tung would be constructed, Ms Winnie Wong informed that the extension to Kwu Tung was recommended in the RDS-2014, while the link to Lok Ma Chau was an option which they had to conduct further feasibility study on the patronage and demand in the area when formulating the detailed alignment for the Northern Link.

19. A Member expected that there would be more details and sensitivity analysis in the full SEA report with regard to the ecological impact on the woodlands mostly located in the Lok Ma Chau area. He accepted that C&D materials would be a significant waste management issue for the new railway projects, and the opportunity would be lost if the schedule of cut-and-fill works could not match with the construction works of other projects such as the third runway at the airport. The Member opined that apparently the SEA was unable to put the relevant territory-wide development projects into perspective. Ms Winnie Wong replied that one of the prime considerations in devising the RDS-2014 implementation

schedule was to meet the transport demand of relevant districts, e.g. the implementation programme for the Northern Link and Kwu Tung Station would be between 2018 and 2023 to match with the population growth expected in the NDAs.

20. When assessing the environmental benefits of the expanded railway networks, a Member opined that the emission from power plants due to the increased use of electricity by the railway system should not be neglected when compared with the reduction of roadside pollutants linked with vehicle emission. He commented that the comparison should be on a fair basis in view of the trend on the increased use of electric vehicles. The Member reiterated his request for THB and EPD to note the comments from ACE for formulating the guiding principles and criteria when THB/HyD implemented the individual EIA studies. Mr Freeman Cheung said that although they did not have details on the electricity consumption aspect of the railway system and the energy resources and fuel mix of the power companies after 2020 at this stage, it was clear that the power companies were mandated to use more cleaner energy for power generation and more stringent emission caps on power plants in the coming years. He added that people would be encouraged to shift preference and opt for more rail transport for daily commuting. An increase of the rail share in the overall public transport system from 40% at present to 45-50% by 2031 would bring a significant improvement to the environment as well as socio-economic benefits to the society as a whole. Cycle tracks and pedestrian paths would also be integrated into the NDAs such as the design of Kwu Tung Station.

21. Taking the example of encouraging cycling with the building of the Northern Link and Kwu Tung Station, a Member emphasized the need in accommodating the needs of the local residents, e.g. provision of shelters and shades at the station and along the cycle tracks to enhance safety, comfort and walkability for cyclists and pedestrians. The Member advised that passive design for natural ventilation and daylight should also be incorporated in the station design at an early design stage. Hybrid design combining natural ventilation and air conditioning should apply where circumstances called for. Another Member suggested enhancing the park-and-ride facilities so as to attract people driving to the nearby station and then commuting to the urban areas by rail.

22. A Member asked whether there had been a review on the service performance of the Light Rail between Tuen Mun and Yuen Long. To accommodate further developments in the areas and resolve the traffic congestion problems, the Member enquired if there were potential major growth points being identified in the New Territories (N.T.) comparable to the scale of a Central Business District (CBD) in the coming 20-30 years. Drawing on the experience of the implementation schedule of the current railway projects, the Member also asked if there were priorities or criteria on

the sequence in constructing the seven proposed railway projects. He further enquired about the feasibility in having a rail station for the Express Rail Link at Kam Sheung Road.

23. Ms Winnie Wong replied that the performance of the Light Rail was outside the ambit of the RDS-2U, but the role and positioning of the Light Rail would be reviewed under the Public Transport Study to be conducted by THB in 2015. She advised that according to the data from PlanD in 2011 when the RDS-2U was conducted, the major growth area was the northeast N.T.. While subsequently there were new planning studies for the northern and western parts of the N.T. which could not be incorporated in the RDS-2U, Ms Wong advised that they would obtain the latest planning data of the whole N.T. in the next stage of implementation so as to assess the overall impacts of the expanded railway networks. She pointed out that the seven proposed railway projects were indicative plans subject to revision. While the implementation of each railway project would be subject to further technical feasibility study, it would not be likely that the Government would drop any of the proposals unless there were strong justifications for doing so, e.g. a significant change in the population of an area which would render the project not viable.

24. As regards setting priorities of the seven proposed railway projects, Ms Winnie Wong said that some of the projects would be carried forward in an earlier stage to accommodate the NDAs. For example, the Northern Link and Kwu Tung Station had been planned for implementation in 2018-2023 to cater for the needs of the NDA in northeast N.T. whereas the indicative implementation timetable for the South Island Line (West) was meant to cater for the potential change in population viz. the redevelopment of Wah Fu Estate. As far as possible, the Government would try to stagger the implementation schedules of the projects to minimize the potential problems of driving up construction costs and labour shortage.

25. On the railway design, Ms Winnie Wong advised that it was not feasible to change the existing design of the Express Rail Link to add another station before crossing the border, e.g. a station at Kam Sheung Road as the construction works were already at an advanced stage. In fact, the option had been studied but dropped before the current alignment was decided. Regarding the proposal of building a rail link between Tuen Mun and Tsuen Wan, Ms Wong said that the link was not justified based on the patronage and costs involved. She pointed out that with reference to the latest planning condition, the residential population within the coastline areas between Tuen Mun and Tsuen Wan was not expected to register any significant growth justifying a new rail link. Besides, the travel time to be saved would just be one minute or so when compared with taking the West Rail. Moreover, the costs of building the link along the coastline of Tuen Mun and Tsuen Wan were estimated to be over \$65 billion, as compared to

the overall costs of building the seven proposed railway projects in RDS-2014 estimated at around \$110 billion.

26. Concerning the construction of the Northern Link and Kwu Tung Station, Ms Winnie Wong said that it was anticipated that the new railway station would benefit those who would be moving into the Kwu Tung New Town by connecting them to the existing railway network as well as providing a means for access to the urban area. She said that the Government was keenly aware of the existing congestions at both the West Rail and the East Rail and would continue to monitor closely the demand on rail service in the areas and the need of new transport infrastructure to alleviate the congestion problems.

27. Two Members advised that the design of the railway stations and the massive building structures such as the elevated sections and the air ducts should integrate better with the public space in the neighbourhood and reflect local character of the area.

28. The Chairman thanked Ms Winnie Wong and her team on the presentation and answering questions from Members. The Chairman invited them to take note of the comments and observations raised by Members.

[The presentation team left the meeting at this juncture.]

Internal Discussion Session

29. A Member commented that EPD should have control over the standards of the environmental performance of the projects such as imposing certain baselines for air emission and waste generation of the proposed projects.

30. Another Member shared the Member's view and suggested setting out a list of overarching principles and criteria for the implementation of the RDS-2014 so that the key environmental concerns could be identified and addressed at the outset. The Member also advised that THB/HyD should have a paradigm shift and take a more proactive approach in devising environmental-friendly buildings and urban design so as to create positive impacts of the railway developments to the cityscape and the community at large. He thought that the building designs should be improved so that the projects could be taken as friendly and contributive neighbours of the community.

31. Although the SEA covered seven railway projects under the RDS-2014, a Member commented that the study provided only limited insight on how they would be implemented in relation to other new projects

in the vicinity. He opined that it might be more appropriate for the Environment Bureau to take the lead in guiding for a macroscopic monitoring on the overall planning of the various development projects in Hong Kong.

32. A Member considered that the responsible policy bureau should work towards drawing up the strategic growth areas in Hong Kong in the coming decades. It was also necessary to review the railway service vis-à-vis the overall public transport provision so as to devise proper measures to alleviate the current congestion problems.

33. Notwithstanding that the detailed design of the proposed railway developments were beyond the ambit of ACE, a Member pointed out the deficiency of the ancillary facilities to support the development of the future CBD2 in East Kowloon given the physical constraints in the existing Ngau Tau Kok and Kowloon Bay MTR Stations. The Member also opined that the use of light rail in East Kowloon was not appropriate in the urban design as the existing road networks in Kowloon Bay and Kwun Tong could hardly cope with the increased rail structures in the area.

34. A Member asked about the statutory role of ACE in vetting the SEA study. She commented that the study had not demonstrated the need of the railway developments or given any possible alternatives. The Member considered that it would be beneficial if EPD could note Members' comments and observations. The "avoidance" criteria should be highlighted as one of the overriding principles when drafting individual EIA Study Brief. Other considerations should also include maximizing the re-use of C&D waste on-site, devising an integrated urban design and creating positive visual impact to the community.

35. The Chairman proposed and Members agreed that the Secretariat should prepare the draft minutes for Members' comment to ensure that it had reflected the overall concerns of Members. The confirmed minutes would be forwarded to the EAD of EPD and THB/HyD for follow up. HyD should also be approached for the full version of the SEA Final Report for Members' reference.

Secretariat

[Post-meeting note: The softcopy of the SEA Final Report was issued for Members' personal reference on 31 December 2014.]

36. The Secretary thanked Members for their invaluable comments on the RDS-2014. He said that it had been a step forward for THB/HyD to update the SEA study conducted in 2000. Members' key concerns and observations on how the individual EIA studies could be conducted would be consolidated and forwarded to EPD and THB/HyD for follow up. This early engagement session with ACE would prove very valuable as the

Council's views and comments could be channeled to THB/HyD at the outset for their early planning. These views could be turned into the guiding principles and key environmental concerns for the subsequent EIA studies. The Secretary assured Members that both EPD and THB/HyD would highly treasure Members' views. The minutes of today's meeting would be duly prepared to reflect the high-level suggestions and key concerns of ACE towards the railway development strategic study. Should Members have further views after the meeting, such supplementary information would be handled separately.

37. A Member stressed that the comments to be provided by ACE could be overarching principles on conducting individual EIA studies which should be perceived as a good opportunity to help enhance the city's environment.

Item 4: Any other business

(a) Report of the EIA Subcommittee (EIASC) on non-selected EIA reports

38. The Deputy Chairman of the EIASC reported that since the last Council meeting held on 13 October 2014, EIASC had received the Executive Summary of two EIA reports, namely the "In-situ Reprovisioning of Sha Tin Water Treatment Works – South Works" submitted by the Water Supplies Department and the "Decommissioning of West Portion of the Middle Ash Lagoon at Tsang Tsui, Tuen Mun" submitted by the Food and Environmental Hygiene Department which the Subcommittee had not selected for discussion. The Executive Summary of the two EIA reports had been circulated to Subcommittee Members, with the relevant hyperlinks copied to non-EIASC Members for information. The EIA report on the reprovisioning of Sha Tin Water Treatment Works was exhibited for public comments between 9 December 2014 and 7 January 2015, while that on the decommissioning of the Middle Ash Lagoon would be exhibited between 17 December 2014 and 15 January 2015. Individual Members had been reminded to send their comments, if any, on the EIA reports directly to the Director of Environmental Protection within the respective public inspection periods. Given that the EIA reports had not been selected by EIASC for presentation and discussion, EPD would take that ACE would offer no comment on these two EIA reports upon close of the respective public inspection periods. The meeting agreed.

(b) End of the current term of the Council

39. As today's meeting was the last one of the current term, the Chairman took the opportunity to thank Members for their valuable contributions to ACE in the past two years. He also appealed to the retiring Members for their continued support on environmental protection and conservation matters in other channels.

40. The Chairman closed the meeting by wishing all Members a Merry Christmas and a Prosperous and Green 2015.

Item 5 : Date of next meeting

41. The Chairman informed Members that the meeting schedule for the new-term ACE for 2015 was being compiled by the Secretariat.

**ACE Secretariat
December 2014**