

**立法會**  
**Legislative Council**

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**Panel on Environmental Affairs**

**Meeting on 24 November 2014**

**Background brief on "Environmental Impact Assessment for  
the Three-Runway System Project"  
prepared by the Legislative Council Secretariat**

**Purpose**

This paper provides background information on the Environmental Impact Assessment ("EIA") for the three-runway system ("3RS") project at the Hong Kong International Airport ("HKIA"), and gives a brief account of the views and concerns expressed by Members on the subject.

**Background**

2. HKIA plays a pivotal role in enhancing Hong Kong's overall economic competitiveness and maintaining Hong Kong's positioning as an international aviation hub. With HKIA's existing two-runway system reaching its full capacity in a few years' time and in the face of the challenges and competition posed by other international airports in the region (especially Singapore Changi, Seoul Incheon and Dubai airports), the Administration considers that there is a genuine need to enhance the capacity of the airport.

3. The Government gave in-principle approval to the Airport Authority Hong Kong ("AAHK") in March 2012 to adopt for planning purpose the option of expanding HKIA into a 3RS. Since then, AAHK had embarked on the statutory EIA procedure and the EIA Report was completed in June 2014.

## Environmental Impact Assessment Ordinance ("EIAO") and its operation

4. EIAO has been in operation since 1998. Its purpose is to provide for assessing the impact on the environment of designated projects, for protecting the environment. The "Technical Memorandum on EIA Process" ("the EIA-TM") issued under section 16 of EIAO sets out the principles, procedures, guidelines, requirements and criteria for handling various EIA matters, which among other things, include –

- (a) the technical content of an EIA study brief or EIA report;
- (b) deciding whether a designated project is environmentally acceptable;
- (c) deciding whether an EIA report meets the requirements of the EIA study brief;
- (d) issue of environmental permits ("EPs"); and
- (e) imposition of environmental monitoring and audit requirements for designated projects as conditions in EPs, etc.

5. According to the EIA-TM, designated projects are to be assessed in accordance with the prescribed methodologies and that the assessed environmental impacts have to meet the criteria and requirements as set out in the annexes of the EIA-TM for various environmental issues and subject areas.

6. In terms of consultation, EIAO has provided for receiving comments from the public and the Advisory Council on the Environment ("ACE") before the issue of an EIA study brief and before deciding on whether to approve, approve with conditions or reject an EIA report of a designated project. To ensure transparency, the Environmental Protection Department ("EPD") has made available all EIA study briefs, EIA reports and EPs at the EIAO website for easy access by the public.

## EIA Report on "Expansion of HKIA into a 3RS" ("the 3RS EIA Report")

7. The 3RS EIA Report had been made available for public inspection for 30 days in accordance with EIAO starting from 20 June 2014. The 3RS EIA study, as required by the study brief issued by EPD, covered the following 12 environmental aspects –

- (1) Air quality;
- (2) Hazard to human life;

- (3) Noise impact;
- (4) Water quality;
- (5) Sewerage and sewage treatment;
- (6) Waste management;
- (7) Land contamination;
- (8) Ecology (terrestrial and marine ecology, including Chinese White Dolphins ("CWDs"));
- (9) Fisheries;
- (10) Landscape and visual;
- (11) Cultural heritage; and
- (12) Health impact (air emissions and aircraft noise).

8. Various mitigation measures with regard to aircraft noise, air quality, marine ecology and fisheries, as well as CWDs are committed in the 3RS EIA Report. The key mitigation and enhancement commitments are in **Appendix I**.

9. On 15 September 2014, ACE endorsed the 3RS EIA Report submitted by AAHK with specific conditions and recommendations. ACE requested the Director of Environmental Protection ("DEP") to consider imposing conditions in the EP for AAHK to address the concerns of ACE with regard to marine and terrestrial ecology (including conservation of CWDs and the proposed marine park), fisheries, water quality, landscape and visual, waste management, as well as environmental monitoring and audit on air and noise emission. ACE had also specifically asked that AAHK should seek ACE's comments on the marine park proposal, implementation of the Marine Ecology Conservation Plan and the Fisheries Management Plan, as well as the Marine Traffic Routes and Management Plan for high speed ferries of the SkyPier before submitting the relevant plans to DEP for approval prior to commencement of the project. On 7 November 2014, DEP issued an EP for the 3RS project.

### **Deliberations by Members**

10. Members discussed issues related to the environmental impact of 3RS at various Panel meetings. The major views and concerns expressed by Members are summarized below.

#### Discussion by the Panel on Environmental Affairs

11. At the joint request of nine environmental groups, the Panel on Environmental Affairs ("the EA Panel") held a meeting on 23 April 2012 to discuss the environmental impacts associated with the development of 3RS. The relevant environmental groups were also invited to express their views.

The EA Panel noted that there was a general consensus among environmental groups that social return on investment ("SROI") assessment and strategic environment assessment ("SEA") should be conducted before EIA to ascertain the social and environmental costs associated with 3RS. Given the scale of the 3RS project and the many infrastructural projects being/to be carried out at Lantau (notably Hong Kong-Zhuhai-Macao-Bridge and the proposed Integrated Waste Management Facilities), members stressed that an EIA on the cumulative impact rather than the standalone effect of 3RS should be conducted. A scientific and objective approach should also be adopted to assess the threshold for tolerance of environmental impact of development projects since not all environmental impacts could be mitigated. As a consolidated view of the EA Panel, members passed a motion demanding AAHK to conduct environmental studies on the 3RS project, including SEA, SROI assessment and carbon audit, in order to protect the environment of Hong Kong and the areas in its vicinity.

#### Discussion by the Panel on Economic Development

12. The Panel on Economic Development Panel ("the EDEV Panel") received a briefing by the Administration and AAHK on the progress of the statutory EIA, scheme designs, funding proposals as well as public engagement initiatives in relation to the 3RS project at the EDEV Panel meeting on 23 June 2014. The EDEV Panel discussed the measures committed in the 3RS EIA Report for mitigating the environmental concerns and potential impacts arising from the project.

13. Members expressed much concern about the impact of the 3RS project on the ecology of the waters surrounding HKIA and the habitats of CWDs. Some members expressed concern that works of the project would affect the habitats of CWDs and might even threaten their survival. Members suggested that in order to assure the public of the Administration's resolve in protecting the marine ecology of the waters surrounding HKIA, the Administration should make it a condition for AAHK to operate the third runway. There were also views that the Administration should build the new marine park as committed in the 3RS EIA Report or relocate CWDs to waters away from HKIA before commencing the construction works for the 3RS project. A member expressed concern about the impact of the 3RS project on the livelihoods of fishermen who worked in the surrounding waters of HKIA.

14. Regarding aircraft noise, some members questioned whether the flight paths in 3RS would in effect shift the area affected by the nuisance of aircraft noise from Ma Wan at present northwards to Tai Lam Chung.

Some members queried that the operation of HKIA under 3RS would not significantly improve the impact of aircraft noise on residents in Ma Wan.

15. Members opined that the Administration and AAHK should strike a balance between maintaining the economic competitiveness of HKIA and Hong Kong as an international and regional aviation hub on the one hand and the environmental and social costs that the 3RS project might bring about to the community on the other. Members called on the Administration to step up the compensatory and mitigating measures for local communities near HKIA such as Tung Chung, which would be directly affected by the works and the increased flight traffic under 3RS in future.

#### Discussion by joint Panels

16. The EA Panel and the EDEV Panel jointly held two special meetings on 30 September and 7 October 2014 to receive public views on the 3RS project and the EIA Report. After the meetings, the Administration was requested to provide supplementary information, including the following –

- (a) the measures proposed to be implemented to address the environmental concerns raised by green groups and the reasons for not addressing some of such concerns;
- (b) ways to ensure that the key mitigation and enhancement commitments as set out in the 3RS EIA Report would be undertaken by AAHK; and
- (c) whether the Administration could develop a dedicated website to set out the public inquiries on the 3RS project and the Administration/AAHK's responses.

#### **Council questions**

17. Hon WONG Ting-kwong and Dr Hon Elizabeth QUAT raised questions relating to the 3RS project at the Council meetings on 23 October 2013 and 9 July 2014 respectively. Details of the Council questions are hyperlinked in **Appendix II** for ease of reference.

### **Latest development**

18. In response to the EA Panel's request, the Administration will brief the Panel on the issues related to the EP for the 3RS project at the meeting on 24 November 2014.

### **Relevant papers**

19. A list of relevant papers is set out in **Appendix II**.

Council Business Division 1  
Legislative Council Secretariat  
21 November 2014

## Appendix I

### **The key mitigation and enhancement commitments as set out in the Environmental Impact Assessment Report on "Expansion of the Hong Kong International Airport ("HKIA") into a Three-runway system ("the 3RS EIA Report")"**

- (a) Aircraft noise
  - (i) Putting South Runway on standby mode at night, where possible, to minimize aircraft noise impact on North Lantau. With 3RS in place, noise impact on North Lantau will be significantly improved and no new noise sensitive receivers will be affected;
  - (ii) Implementing a preferential runway use programme when wind conditions allow such that more flights would fly over the sea instead of over the urban areas at night time; and
  - (iii) The Airport Authority Hong Kong will consider implementing incentive / charging scheme to encourage airlines switching to quieter aircraft.
- (b) Air quality
  - (i) Undertaking measures to minimize potential air quality impact, including the ban of use of Auxiliary Power Units for all aircraft frontal stands by the end of 2014 and the replacement of all saloon vehicles to electric vehicles by the end of 2017; and
  - (ii) Providing the cleanest diesel and gasoline at the airfield.
- (c) Marine ecology and fisheries, and Chinese White Dolphins ("CWDs")
  - (i) The use of non-dredge method for land formation; including the adoption of deep cement mixing for improving ground conditions for the contaminated mud pit area;

- (ii) Designation of approximately 2 400 hectares of a new marine park to connect HKIA Approach Areas and the existing and planned marine parks at Sha Chau / Lung Kwu Chau ("SCLKC") and Brothers Island. The total combined area of marine protected area will be around 5 200 hectares in Hong Kong western waters linking major habitats of CWDs;
- (iii) Route diversion of high speed ferries ("HSFs") operating at SkyPier to travel along Urmston Road instead. Besides, a speed limit of 15 knot would be observed by these SkyPier HSFs if they are navigating close to the waters north of SCLKC Marine Park; and
- (iv) The implementation of the Fisheries Enhancement Strategy with associated funding to assist fishermen in better coping with changes to their fishing activities resulting from 3RS project and to enhance fisheries resources in Hong Kong western waters. A Marine Ecology Enhancement Strategy with associated funding is also proposed to focus specifically on enhancing marine ecology (including health and survivability of CWDs) in North Lantau waters.

Details of other major mitigation measures as committed in the 3RS EIA Report are set out in the Annex.

**Other major mitigation measures committed in the  
3RS EIA Report**

Aircraft noise

- (1) Preferential use of the new arrival flight path over water from West Lamma Channel (i.e. Track 6) during night-time to minimize noise impact to more densely populated areas
- (2) Proposing noise mitigation measure in the form of a noise enclosure to alleviate the noise impacts from aircraft engine run-up facilities

Marine ecology

- (1) Establishment of a 24-hour Dolphin Exclusion Zone around active reclamation works area during construction period to ensure cessation of works if dolphins are sighted inside the works area
- (2) Acoustic decoupling of air compressors and other noisy equipment on barges via rubber mounting to minimize disturbance to CWDs
- (3) Employment of horizontal directional drilling ("HDD") method and water jetting method for placement of pipelines and undersea cables respectively to minimize disturbance to CWDs and other marine ecological resources

Water quality

- (1) Deployment of double layer silt curtains around marine construction works activities to minimize suspended solids release into adjacent waters

Terrestrial ecology

- (1) Protection of breeding/roosting ardeids (e.g. egrets) at Sheung Sha Chau by scheduling all HDD construction works outside the breeding season and not allowing night-time construction work during all seasons

Waste management

- (1) Reuse of materials such as all rock armour demolished from the existing northern seawall in 3RS reclamation

Landscape and visual impact

- (1) Planting of native coastal plants along the new land formation edge
- (2) Installation of lighting units in a directional manner to minimize unnecessary light spill and glare
- (3) Provision of vertical greening, green roofs, road verge planting and peripheral screen planting as far as possible at locations within the project site boundary

## List of relevant papers

Council/ Committee	Date of meeting	Paper
Panel on Environmental Affairs	23 April 2012	<p>The Legislative Council Brief on "Hong Kong International Airport Master Plan 2030" issued by the Transport and Housing Bureau (File Ref: THB(T)CR 3/930/08)  <a href="http://www.legco.gov.hk/yr11-12/english/panels/ea/papers/ea0423-thbtr393008-e.pdf">http://www.legco.gov.hk/yr11-12/english/panels/ea/papers/ea0423-thbtr393008-e.pdf</a></p> <p>Minutes of meeting  (LC Paper No. CB(1)1992/11-12)  <a href="http://www.legco.gov.hk/yr11-12/english/panels/ea/minutes/ea20120423.pdf">http://www.legco.gov.hk/yr11-12/english/panels/ea/minutes/ea20120423.pdf</a></p>
Panel on Economic Development	23 June 2014	<p>Three-runway system Environmental Impact Assessment  <a href="http://www.threerunwaysystem.com/en/Commitment/Environmental_impact_assessment.aspx">http://www.threerunwaysystem.com/en/Commitment/Environmental_impact_assessment.aspx</a></p> <p>Administration's paper on updates on the Third Runway System Project in the Hong Kong International Airport  (LC Paper No. CB(1)1626/13-14(03))  <a href="http://www.legco.gov.hk/yr13-14/english/panels/edev/papers/edev0623cb1-1626-3-e.pdf">http://www.legco.gov.hk/yr13-14/english/panels/edev/papers/edev0623cb1-1626-3-e.pdf</a></p> <p>Background brief on the development of a third runway at the Hong Kong International Airport prepared by the Legislative Council Secretariat  (LC Paper No. CB(1) 1626/13-14(04))  <a href="http://www.legco.gov.hk/yr13-14/english/panels/edev/papers/edev0623cb1-1626-4-e.pdf">http://www.legco.gov.hk/yr13-14/english/panels/edev/papers/edev0623cb1-1626-4-e.pdf</a></p> <p>Minutes of meeting  (LC Paper No. CB(1)19/14-15)  <a href="http://www.legco.gov.hk/yr13-14/english/panels/edev/minutes/edev20140623.pdf">http://www.legco.gov.hk/yr13-14/english/panels/edev/minutes/edev20140623.pdf</a></p>

<b>Council/ Committee</b>	<b>Date of meeting</b>	<b>Paper</b>
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Hyperlinks to relevant Council Questions:

<b>Date</b>	<b>Council Question</b>
23 October 2013	Council question raised by Hon WONG Ting-kwong <a href="http://www.info.gov.hk/gia/general/201310/23/P201310230259.htm">http://www.info.gov.hk/gia/general/201310/23/P201310230259.htm</a>
9 July 2014	Council question raised by Dr Hon Elizabeth QUAT <a href="http://www.info.gov.hk/gia/general/201407/09/P201407090648.htm">http://www.info.gov.hk/gia/general/201407/09/P201407090648.htm</a>