

**Expansion of Hong Kong International Airport into a
Three-Runway System**

Eleventh Meeting of Professional Liaison Group

Notes of Meeting

The eleventh meeting of the Professional Liaison Group (PLG) was held on 27th April 2023. Airport Authority Hong Kong (AAHK) presented an update on the Expansion of Hong Kong International Airport into a Three-Runway System (3RS) Project, including an overview of the 3RS works progress, a summary of environmental monitoring and audit (EM&A) results, updates on the implementation of the Marine Ecology and Fisheries Enhancement Strategy (MEFES), details on carbon management strategies, green airport design and sustainable construction, and outcomes of Environmental, Social, and Governance (ESG) assessment. Members also visited the new Integrated Airport Centre, Sky Bridge and Food TranSmarter facility where they were briefed on a wide range of smart innovations and green design features.

Members present:

Ir Dr Cary CHAN, JP	Hong Kong Green Building Council
Mr Norman CHENG	Hong Kong Waste Management Association
Ir Gordon CHO	Dashun Policy Research Centre
Prof CHU Ka Hou	School of Life Sciences, The Chinese University of Hong Kong
Prof Jackson HO	Hong Kong Airline Service Providers Association
Ms Yvonne HO	International Air Transport Association
Mr Ken LAU	Airports Council International (ACI) Asia-Pacific
Dr LUI Sun Wing	The Hong Kong Association for the Advancement of Science and Technology
Mr Thomas LUI	The American Chamber of Commerce in Hong Kong
Mr Simon NG	Business Environment Council
Mr Henry TSUI (on behalf of Dr Brian KOT)	Jockey Club College of Veterinary Medicine and Life Sciences, City University of Hong Kong
Ms Josephine WONG	Ocean Park Conservation Foundation Hong Kong
Ir Prof Steve WONG	Environment & Sustainability Committee, The Hong Kong General Chamber of Commerce

Members absent with apologies:

Ir Albert CHENG	Construction Industry Council
Prof Alexis LAU	Division of Environment and Sustainability, The Hong Kong University of Science and Technology
Ir LEE Ping Kuen	The Hong Kong Institution of Engineers
Ir Kenny WONG Siu Wai	The Hong Kong Institution of Engineers
Mr Philip WONG Wing Hong	Ocean Park Corporation
Dr Cynthia YAU	Marine and Fisheries Ecologist

In attendance:

Mr Tommy LEUNG	Airport Authority Hong Kong (AAHK)
Mr Peter LEE	Airport Authority Hong Kong (AAHK)
Mr Eden NGAN	Airport Authority Hong Kong (AAHK)
Mr Eric CHING	Mott MacDonald (MM)
Ms Julia CHAN	Mott MacDonald (MM)
Mr Raymond CHOW	Environmental Resources Management (ERM)

1.0 Welcome and Introduction

1.1 AAHK welcomed members and thanked them for attending the meeting-cum-visit. Environmental consultants assisting in the implementation of 3RS Project were introduced. Emphasis was made on the PLG meeting being a two-way communication platform with members encouraged to raise questions and make comments at any time during the presentation.

2.0 Presentation by AAHK and consultants

2.1 AAHK shared with members updates on the 3RS Project, carbon management, green airport design and sustainable construction, and ESG assessment outcomes.

2.2 MM presented implementation status of the Project's EM&A programme, including monitoring results of Chinese White Dolphins (CWDs).

2.3 ERM presented latest progress of the MEFES, including marine ecology and fisheries enhancement measures in Lantau waters, the proposed North Lantau Marine Park (NLMP), and the Marine Ecology Enhancement Fund (MEEF) and Fisheries Enhancement Fund (FEF).

3.0 Questions and comments from members

3.1 Members raised questions after the presentation and the discussion items were summarized as follows.

3.2 A question was raised regarding traffic resumption and the AAHK team shared that it is expected to resume to 80-90% of pre-COVID levels by next year.

3.3 A question was raised on the eventual full operation of the three runways and how to tackle carbon emission in view of the longer taxiing distance. The AAHK team responded that relevant simulations were conducted in the planning and design stages to optimize the efficiency of airport operation and hence minimizing the associated carbon emissions.

- 3.4 A question was raised whether there are plans to introduce sustainable aviation fuel (SAF). The AAHK team responded HKIA is equipped with fueling infrastructure for airlines to receive, store and uptake pre-blended SAF. In 2022, AAHK also supported a home base carrier to uplift SAF for the first time at HKIA.
- 3.5 A question was raised on whether embodied carbon was considered as part of the design and construction process. The AAHK team responded that they were adopting well-established sustainability rating tools including BEAM Plus and CEEQUAL (now known as BREEAM Infrastructure) in managing the sustainability performance of the design and construction of key project components of the 3RS and these had included relevant requirements such as those that encouraged the sourcing of materials that were manufactured within 800km from the project site.
- There was a follow-up question asking how AAHK is going to manage the embodied carbon impacts during the maintenance and operation stage of the new buildings and facilities. AAHK responded that this is something that they would consider in future with a view to reducing the associated embodied carbon impacts.
- 3.6 A question was raised if the airport is vulnerable to extreme climate conditions. The AAHK team responded that back in 1994, they already took extreme climate conditions into consideration, for instance the reclamation standard adopted for the existing airport island was +6.5mPD vs Hong Kong's general reclamation level of +4mPD to +5mPD. Having said that, in the completed climate resilience study, various extreme typhoon scenarios had already been taken into consideration.
- 3.7 A question was raised regarding the use of photo-identification in the monitoring of CWDs. The AAHK team responded that photo-identification was conducted as part of the CWD monitoring conducted by AAHK. Separately, AI technology on CWD recognition was also explored in one of the projects funded by the Marine Ecology Enhancement Fund.
- 3.8 A question was raised regarding potential improvement area for ESG. The AAHK team responded that they are working on enhancing waste management and the pilot study on Food TranSmarter is one of the ongoing initiatives.
- 3.9 A question was raised if hydrogen vehicles would be considered. The AAHK team responded they do have plan to look into hydrogen pilots.
- 3.10 A question was raised regarding the species and sources of shrimps for the planned shrimp fry release. The AAHK team responded that they had

consulted the fisheries sector and made reference to the shrimp fry release exercise conducted by the Agriculture, Fisheries and Conservation Department (AFCD). Native shrimp species that are available from nearby hatcheries will be considered. Although tagging of shrimp fry for monitoring would not be practical, holistic post-release monitoring plan to evaluate the effectiveness of the implemented marine ecology and fisheries enhancement measures in North Lantau waters would be considered.

- 3.11 A question was raised regarding electrification of vehicles at the airport. The AAHK team responded that apart from encouraging the adoption of electric vehicles and equipment, other sources of renewable energy including hydrogen and its associated charging infrastructures would also be reviewed.

4.0 Conclusion

- 4.1 AAHK thanked PLG members for their attendance, insights and suggestions.

Airport Authority Hong Kong
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