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## WWF's Submission for the Legislative Council Panel on Economic Development on 19 July 2011

### **I. WWF calls for Public Consultation on the Airport Expansion to be Halted**

***WWF calls upon the Airport Authority Hong Kong (AAHK) to halt the Master Plan 2030 public consultation immediately, until in-depth analysis of the environmental and ecological impacts, and their associated costs has been conducted, and released for public scrutiny.***

A decision to build a third runway or not should take into consideration not only the costs for project development, but more importantly the overall social and environmental costs to Hong Kong. The environmental impacts of a third runway are likely to be major, but precious little information has been released by AAHK on them. Incredibly, no projections on increases in aviation emissions, and no estimates of environmental costs in monetary terms have been made available.

WWF supports the sustainable development of Hong Kong, and benefits for its citizens. However, the right decision can only be made with the right information, and the environmental impacts and costs are key considerations for an extraordinary project like the proposed third runway. AAHK was able to quantify the potential benefits of the third runway but has had a striking reluctance to inform the public of its true environmental costs.

WWF views that this is not the objective consultation Hong Kong deserves, but an exercise designed to achieve only one result. The magnitude of the taxpayers' investment and sheer scale of the project warrants a far better basis for analysis than has been provided so far.

WWF met with AAHK last week requesting that they provide additional analyses on the impacts of a third runway to the Chinese white dolphin, the recovery of the marine ecosystem following the trawl ban, and aviation emissions, before any decisions on which option to pursue are made. As well as the associated monetary costs. AAHK declined.

WWF believes that it would be unwise for any decision to be made on the airport expansion without full view of the facts, as it will be impossible for society to determine if the third runway is a prudent investment for Hong Kong in the long term. The magnitude of the decision to be made also warrants further discussion on the feasibility of options other than the two promoted by AAHK.

Furthermore, WWF's analysis on aviation emissions (below) clearly demonstrates that the environmental implications and costs of a third runway are major. ***In view of AAHK's refusal to provide additional analysis following the consultation, and before any decision is made, WWF has little option but to call for the consultation to be halted until the full cost details are available. Only then can a reasoned decision be made.***

## **II. Major and Potentially Permanent Damage to the Environment**

The construction of a third runway will impose major impacts and potentially permanent damage to our environment for decades at least, in the areas of:

- Carbon emissions
- The Chinese white dolphin
- Fisheries resources

### **Carbon Emissions**

In view of the lack of such important information, WWF has researched aviation emissions from in-bound and out-bound flights between Hong Kong and 14 regions in Asia Pacific and projected carbon emissions from aircraft in 2030 (see Notes for methodology).

Taking into account only flights travelling to and from Asia-Pacific destinations, WWF's research reveals a new runway will add at least 18.1 million tonnes of carbon emission per annum in Hong Kong in 2030. This is a 75.7 % surge compared with 2008. If Hong Kong does not build the third runway, aviation emission would be 12.8 million tonnes per annum in 2030. The 5.3 million tonnes emission difference is equivalent to the carbon emissions generated by electricity consumption of all local households for about 1 year by 2030.

There is a growing international trend for assigning a social cost to carbon emissions reflecting an attempt to reduce them. The Australian government's new programme places a price on carbon pollution at AUD 23.00 per ton. China and New Zealand are beginning to look into similar schemes.

According to WWF, in 2030 aviation emissions will cause an escalation of 40% to Hong Kong's total emissions because of the third runway. The carbon cost of the aviation emissions could range from as low as HK\$3 billion to 59 billion<sup>1</sup> for the next 20 years (Year 2008-2030).

With the given time frame and data available, WWF has not calculated the emissions from long-haul flights. The cost of the amount of carbon emissions if all flights are included as well as who will pay for it remains unknown. This environmental cost must be understood so that society can consider whether the project is a worthwhile investment for Hong Kong.

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<sup>1</sup> The low side is based on RMB9.5/tonne and the high side is based on Australia's proposed A23/tonne

## **The Chinese white dolphin**

WWF notes that any assumptions that the impacts of a third runway on the Chinese white dolphin can be mitigated need serious re-examination in the light of recent and extremely worrying Government monitoring data showing that the numbers have dropped from 158 in 2003 to just 75 last year in three primary Hong Kong Chinese white dolphin habitats. The forthcoming Macau-Zhuhai-Hong Kong bridge which will cut right through areas used by the Chinese white dolphin in the Pearl River Estuary exacerbates our concern.

### **Fisheries Impact**

With regards to fisheries, WWF points out that Government has made major commitments to start restoring the marine ecosystem and to build a sustainable fishery through a ban on all trawling in Hong Kong, and a ban on commercial fishing in Marine Parks. Analysis is needed on the impact of a third runway reclamation on such a recovery, and its economic and social costs.

### **III. Cumulative Impacts**

According to WWF research, over the past 20 years at least 2,000 ha of dolphin habitat has already been affected or destroyed because of dredging, dumping and reclamation works. The proposed new runway would reclaim another 650 hectares of the seabed, causing grave concern for the survival of an already stressed and apparently declining dolphin population in Hong Kong. Continuous large infrastructure developments off Lantau, particularly the forthcoming Hong Kong-Zhuhai-Macao Bridge, put pressure on marine habitats and life, such as Chinese white dolphins, as well as the local fishing grounds. For example, reclamation has not just caused a direct loss of these mammal's habitats; it has also removed habitats for the fish on which the CWD feed.

The Tung Chung and Tuen Mun area have been suffered from poor air quality and the situation may get worsen after the construction of HZMB.

Below are the projects which involve dredging or reclamation and have been approved or planned in western waters

- Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Link Road (HKLR);
- Hong Kong Boundary Crossing Facility (HKBCF);
- Tuen Mun – Chek Lap Kok Link Road (TMCLKL);
- Existing and proposed Contaminated Mud Disposal Facility at East of Sha Chau and South of Brothers;
- Hong Kong Link Road (HKLR);
- Kwai Tsing Container Basin Dredging;
- Tonggu Channel annual maintenance dredging
- Hong Kong – Shenzhen Airport Rail Link; and
- Lantau Logistic Park (LLP)

A holistic approach should be adopted to look into the strategic environmental impacts during the project design and planning stage, to avoid causing any undesirable cumulative environmental effects under the principle of sustainable development.

#### **IV. WWF's Requests in Full**

The environment is not some side issue that can be conveniently ignored, nor is it reasonable to ask society to "make a decision" for a 136 billion dollar mega-project with long-lasting costs to society without detailed information. The Hong Kong Government has signed the Convention on Biological Diversity (CBD) and has an obligation to Hong Kong citizens to take into account the environmental costs of projects of this nature.

WWF contends that the HKIA Master Plan 2030 consultation should be halted until the following detailed analyses to be performed, and full results released to the public for a full and frank debate, before any decisions on expansion options are made.

1. Detailed analysis of the impact of a third runway and other long term cumulative impacts on the survival of the Chinese white dolphin in Hong Kong.
2. A full assessment of the 650 ha reclamation's impact on the recovery of the local marine ecosystem, and the development of sustainable fisheries following the forthcoming trawl ban and banning of commercial fishing in Marine Parks.
3. Detailed projections of the increase in greenhouse gases from a third runway
4. A detailed assessment of the monetary costs of the above environmental impacts for a third runway vs. all other reasonable options.

#### **Notes**

##### **1. The methodology of the aviation emissions projection**

Four methodologies that are recommended by the United Nations Framework Convention on Climate Change (UNFCCC) Subsidiary Body for Scientific and Technological Advice (SSBTA) were considered in this aviation emissions projection: bunker fuel, nationality of airline, international departures/arrivals on an aircraft basis and passenger basis. WWF-Hong Kong adopts the passenger-based calculation, which is also used by the UK government. Four factors are considered in this process: 1) Projected passenger numbers and cargo flights by 2030; 2) Emissions factors for passengers and freight flights; 3) 20% fuel efficiency improvement starting from 2020, and 4) Travel distance.

##### **2. Carbon inventory**

Aviation emissions are not currently included in the calculation of Hong Kong's total carbon inventory. However, these form part of the carbon inventory of China, in-bound and out-bound flights between Hong Kong and China are counted as the emissions of the domestic flights.