

For Information

Legislative Council Panel on Transport

Supplementary Information on the Hong Kong-Zhuhai-Macao Bridge

PURPOSE

This paper provides Members with supplementary information on the assessment of the economic benefits of the Hong Kong-Zhuhai-Macao Bridge (HZMB) and plans showing the major road infrastructure and developments in the western Pearl River Delta (PRD).

BACKGROUND

2. At the meeting of the Legislative Council Panel on Transport held on 16 May 2008, we further briefed Members on the traffic projection and economic benefits of the HZMB, the split of government subsidy for the HZMB as well as a more detailed breakdown of the cost of the preconstruction works for the project. We undertook to provide more information on the assessment of the economic benefits of the HZMB and the major road infrastructure and developments in the western PRD.

TRAFFIC PROJECTION

3. The traffic volume forecast is a key determinant in estimating the magnitude and distribution of the economic benefits among the three governments, and for the purpose of examining the economic viability of the HZMB project. The traffic volume is also used for assessing the financial viability of the HZMB. The methodology for the forecast of the traffic

volume adopted for the HZMB is a four-stage modelling approach for deriving passenger and vehicle flows, which is in line with international practice. The four stages are, namely, demand projection, distribution pattern analysis, mode choice analysis and route choice assignment. The four-stage approach uses a systematic method to analyze the complex characteristics of the population, employment, economic growth, transportation network, travelling time, transportation cost, etc. in the study area so as to work out the predicted passenger and goods vehicle flows.

4. The traffic forecast is prepared on the assumption that the existing quota system for cross-boundary private cars remains as it is. A large proportion of cross-boundary trips are expected to be made by Hong Kong residents. For example, it is estimated that in 2020, about 60% of the total private car traffic on the HZMB come from Hong Kong, while those from the Mainland and Macao constitute 23% and 17%.

BENEFITS FROM THE HZMB

5. Based on the results of the traffic volume forecast with the four-stage methodology, the benefits from savings in transport costs, value of time saved for travellers, induced traffic volume generated between the three territories, and value of time saved for goods on road, etc. were evaluated under two scenarios, i.e. with and without the HZMB. The economic benefits are then apportioned among the three territories, taking into account the place of origin of the passengers, places of origin and destination of the freight vehicles. The economic rate of return of the project is 8.8% in respect of Hong Kong over 20 years, or 12% over 40 years.

**MAJOR ROAD INFRASTRUCTURE AND DEVELOPMENTS IN
WESTERN PERAL RIVER DELTA**

6. We attach a plan showing the major road infrastructure and developments in the western PRD for Members' information. The HZMB will be connected to the existing and proposed highway network in the western PRD, including the Guangdong West Coastal Expressway to the west, and the Jiangzhu Expressway, the Beijing – Zhuhai Expressway and the Guangzhou – Zhuhai West Expressway to the north. It will also provide convenient access to the various industrial areas, high technology development areas and free trade zone in Pearl River West.

Transport and Housing Bureau
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