Seamless Asian Skies:
Economic Analysis of Benefits

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Background

- APSAPG/2 (Tokyo, August 2012) agenda item 3: “Drivers for a Seamless ATM Environment”
- IATA commitment: work with States and Agencies to quantify the benefits of Seamless ATM for Asia Pacific
- IATA commissioned an economic analysis
- This identifies the broader benefits of aviation activity to national economies in Asia Pacific
- Comparison to investments in other modes of transport in terms of costs and benefits
Current Situation

- Many key airports operate at near full capacity
- Variance in air navigation service capabilities
- Asia-Pacific is forecasted to be the world’s fastest growing region for air transport over the next 20 years
- Air transport connectivity is a critical link to markets and a generator of wealth
- Close link between GDP growth and air travel demand
Effect of Congestion on Regional Economy

Without enhancements, the current infrastructure in Asia Pacific cannot meet the projected future demand

* ASBU-0: Aviation System Block upgrade - 0
Scenario I - 0% Capacity enhancement

US$ 14.97 trillion accumulated loss of benefits by 2030

<table>
<thead>
<tr>
<th>2010</th>
<th>2030</th>
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<tbody>
<tr>
<td>Overall Aviation Contribution to the regional GDP</td>
<td>2.2%</td>
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</table>
Scenario II - 50% Capacity enhancement

US$ 9.5 trillion accumulated loss of benefits by 2030

<table>
<thead>
<tr>
<th>Year</th>
<th>2010</th>
<th>2030</th>
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<tbody>
<tr>
<td>Overall Aviation Contribution to the regional GDP</td>
<td>2.2%</td>
<td>1.7%</td>
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</table>
Scenario III - 100% capacity enhancement (ASBU-0)

Implementation of the Asia Pacific Seamless ATM Plan will also lead to potential productivity gains service providers.
Case Study Philippines

A case study for the Philippines shows that:

- Seamless ATM implementation for MNL would lead to a total benefit for its users of **USD 85.2 million per year**
Air Transport Investments Compared to Investments in Other Transport Domains

- Comparison between air, rail, sea and road transport investments in terms of economic benefits and rates of return (based on study of 31 publicly available reports)

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<thead>
<tr>
<th></th>
<th>Air</th>
<th>Rail</th>
<th>Sea</th>
<th>Land</th>
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<tbody>
<tr>
<td>Sample range investment (USD m)</td>
<td>351 to 3250</td>
<td>304 to 57200</td>
<td>210 to 7000</td>
<td>264 to 619</td>
</tr>
<tr>
<td>Sample range benefit-to-cost ratio</td>
<td>2.3</td>
<td>0.9 to 4.4</td>
<td>7</td>
<td>0.6 to 2.0</td>
</tr>
<tr>
<td>Sample range increase in national connectivity (%)</td>
<td>0.07 to 0.9</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sample range annual economic rate of return ERR (%)</td>
<td>16 to 59</td>
<td>2.6 to 10.4</td>
<td>5 to 14</td>
<td>-0.01 to 56</td>
</tr>
<tr>
<td>Sample range pay-back period (years)*</td>
<td>6.3 to 1.7</td>
<td>∞ to 3</td>
<td>20 to 7.2</td>
<td>∞ to 22</td>
</tr>
</tbody>
</table>
Air Transport Investments Compared to Investments in Other Transport Domains

- Air transport projects are typically **less costly** than projects in other transport domains (rail in particular)

- Air transport projects are generally **quicker to implement** with **shorter pay-back periods** and **higher benefit-to-cost ratios** (with a corresponding impact on GDP growth)
Air Transport Investments Compared to Investments in Other Transport Domains

Air Transport

= Quicker to implement

+ Shorter pay-back periods

+ Higher benefit-to-cost ratios
Air Transport Investments Compared to Investments in Other Transport Domains

- Compared to other modes of transport, the air transport network more readily adapts to changes in market conditions and hence is able to rapidly support the development of new markets.
- More than other modes of transport, air transport encourages international trade and is particularly important for low-weight high-value exports (air cargo accounts for 35% of world trade by value).
Conclusions

- Economic analysis shows that:
  - Not implementing the Asia Pacific Seamless ATM Plan will lead to significant loss of economic benefits for the region
  - There is a need to increase capacity and efficiency of the aviation system

- Investment in air transport infrastructure compares favourably to investments in other modes of transport in terms of:
  - Higher benefit-to-cost ratios
  - Higher rates of return
  - Shorter pay-back periods

- The aforementioned benefits are even more clearly observed for investments in air traffic management and less so for airport infrastructure investments
Historically, investment in ATM was individual state’s responsibility, whereas Seamless ATM plan requires regional collaborative investment.

Next steps:

- Conduct detailed analysis to **quantify the investment**
- **Joint investment decision** by Air Navigation Service Providers (ANSPs) in the participating nations
- **Regional solution** which is **managed cooperatively**
- **We need your support!**
Thank You

Dankie Gracias
Спасибо Merci
Köszönjük Terima kasih
Grazie Dziękujemy
Ďakujeme Vielen Dank
Kiitos Paldies
Tänne teid Tak
Obrigado Teşekkür Ediniz
Σας ευχαριστούμε 감사합니다
Děkujeme vám
ありがとうございます
Tack

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References


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