

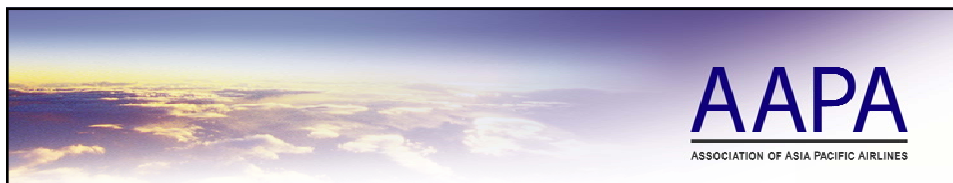
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Asia Pacific Aviation & the Environment : Managing Growth Responsibly

*Andrew Herdman, Director General
Association of Asia Pacific Airlines*

**2nd Aviation & Environment Summit
26 April 2006, Geneva, Switzerland**

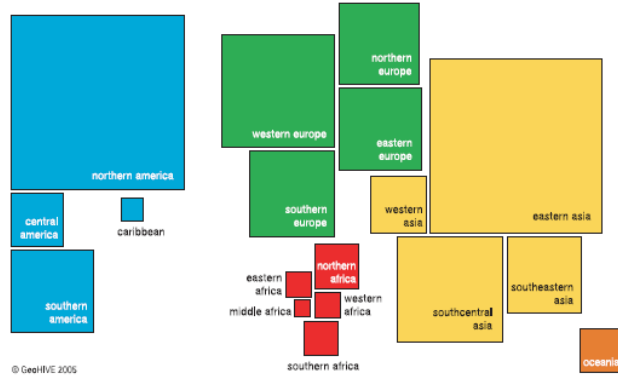


Presentation outline

- **Global economic development**
- **Asia Pacific aviation**
- **Energy demand and emissions**
- **Policy options**
- **Contrasting regional perspectives**
- **Conclusions**

The global economy

Average GDP per region



© Geohive 2005

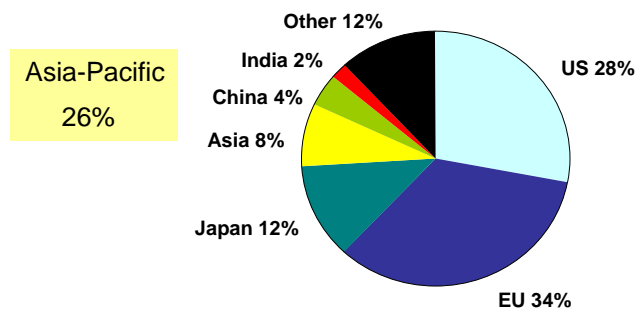
Figure 3.

Source: Geohive

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Share of world GDP by region

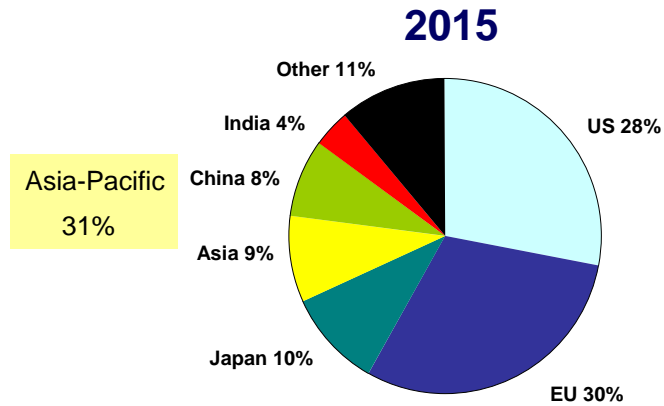
2004



Source: PATA / AAPA estimates

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World GDP boosted by growth in China & India



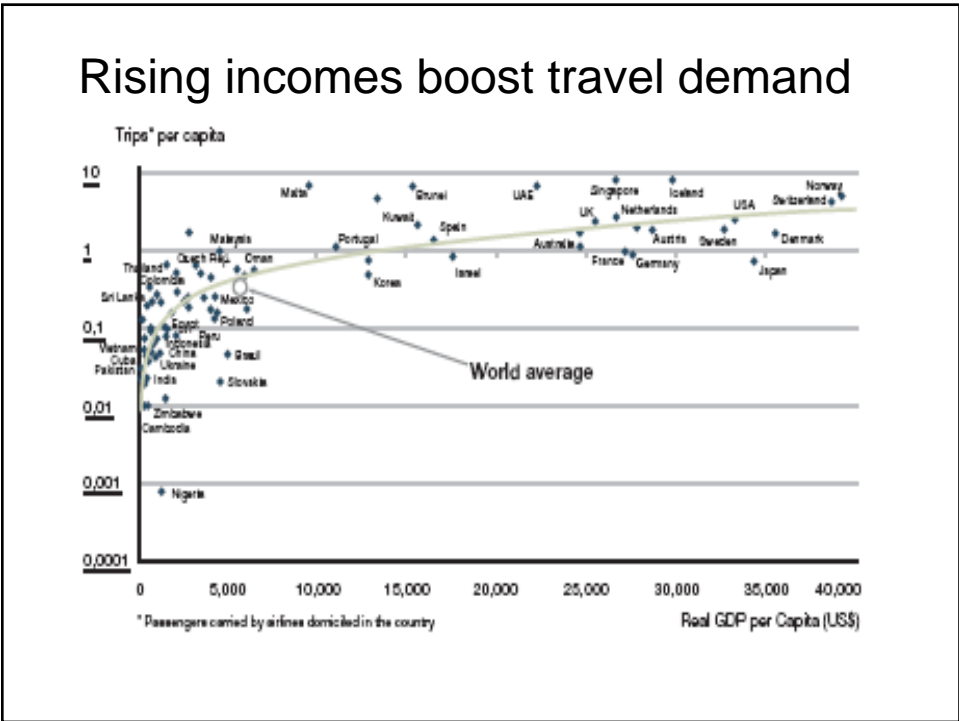
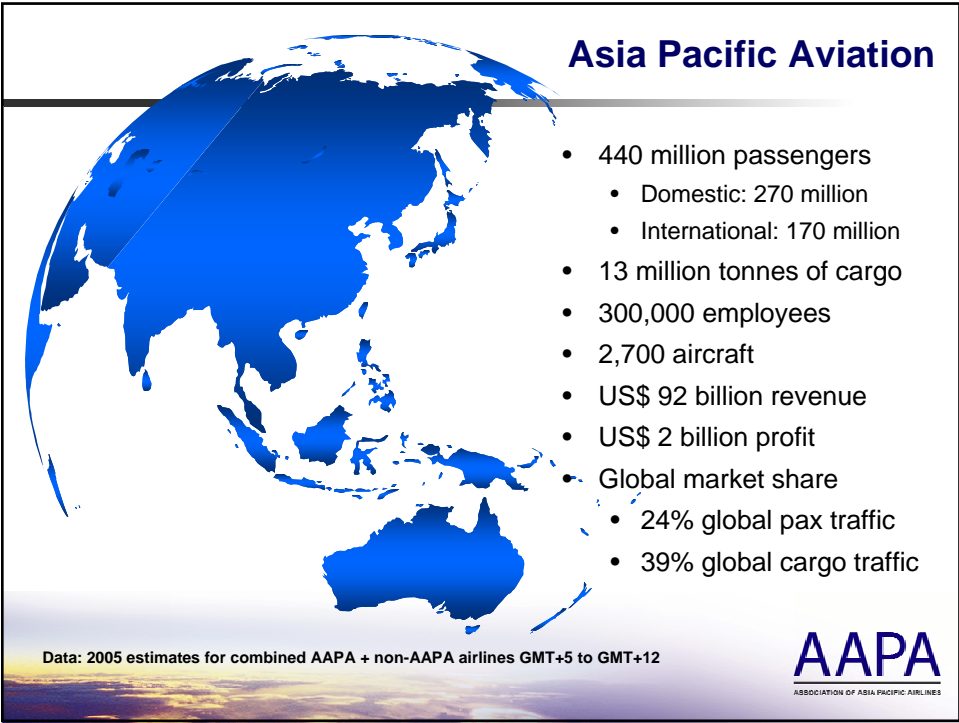
Source: PATA / AAPA estimates

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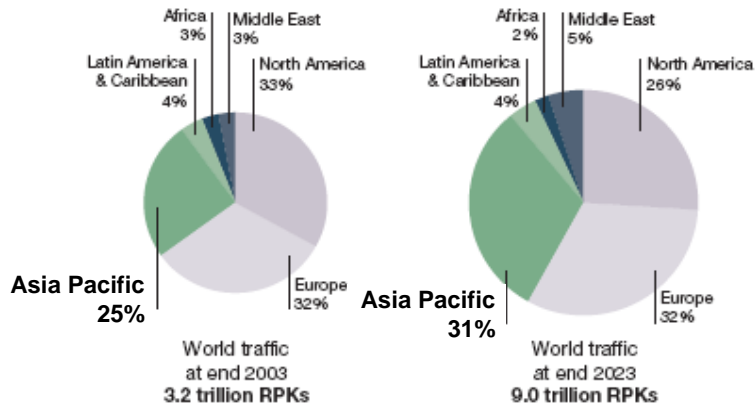
Asia Pacific

- Diverse geographic region
- Home to 4 billion people
 - 62% of the world's population
- Generates 26% of global GDP
- Wide range of income levels
- Dynamic economies
- Aviation recognised as a key contributor to economic and social development

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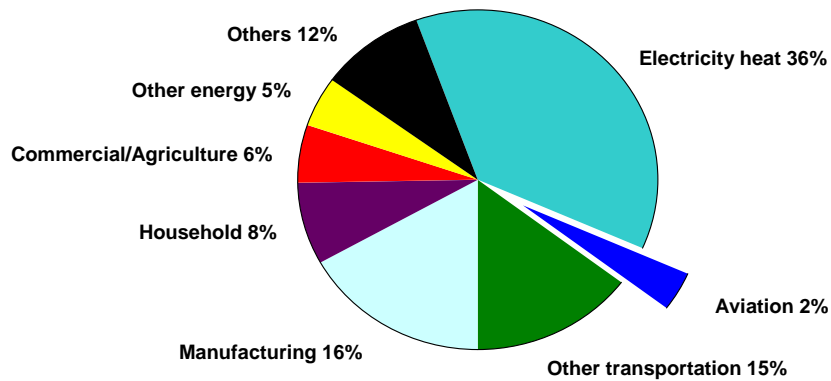
Asia Pacific's share of world traffic will continue to grow



Source: Airbus Market Outlook

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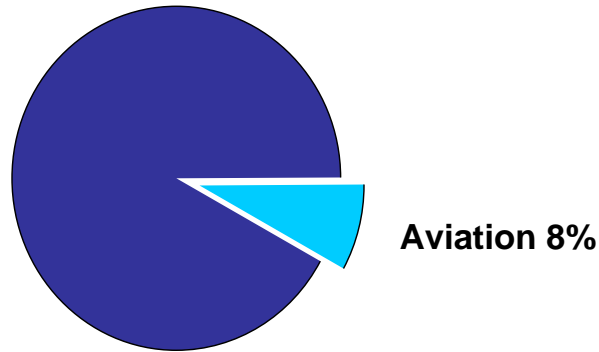
World CO₂ emissions by economic sector



Data: 2001
Source: IEA

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Aviation share of global oil demand

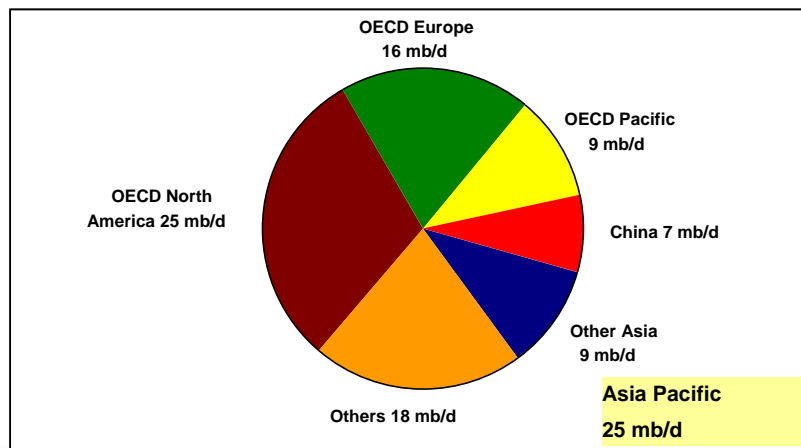


Total oil demand: 83 million barrels per day (2005)

Source: IEA

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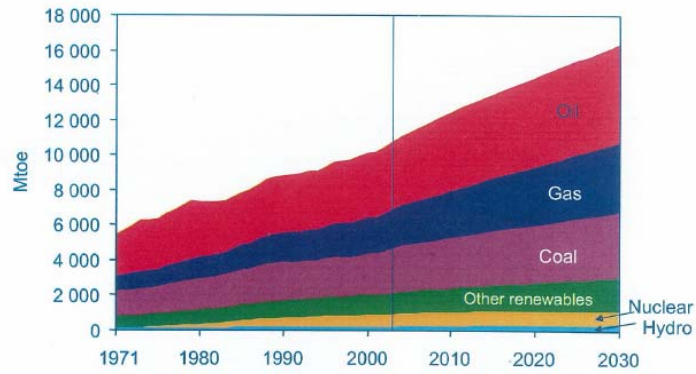
Global oil demand by region 2005



Source: IEA Oil Market Report FEB 2006 issue

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Meeting world energy demand



World Energy Demand rises by 52 % between now and 2030 in the Reference Scenario

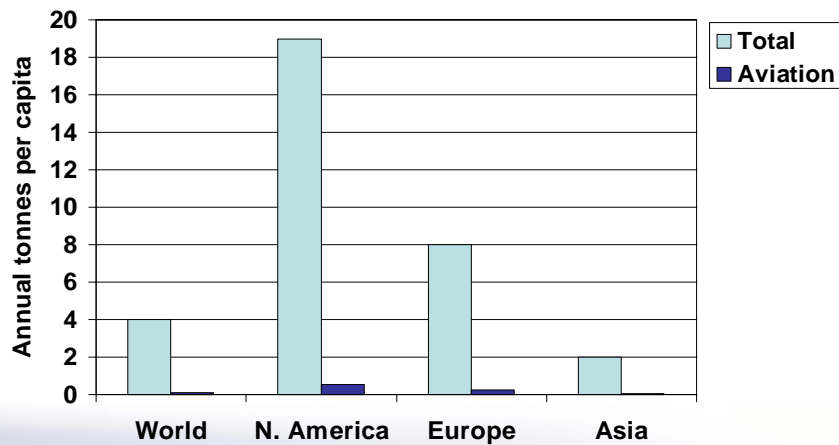
Surprisingly modest average annual growth rate ~ 2%

Source: IEA

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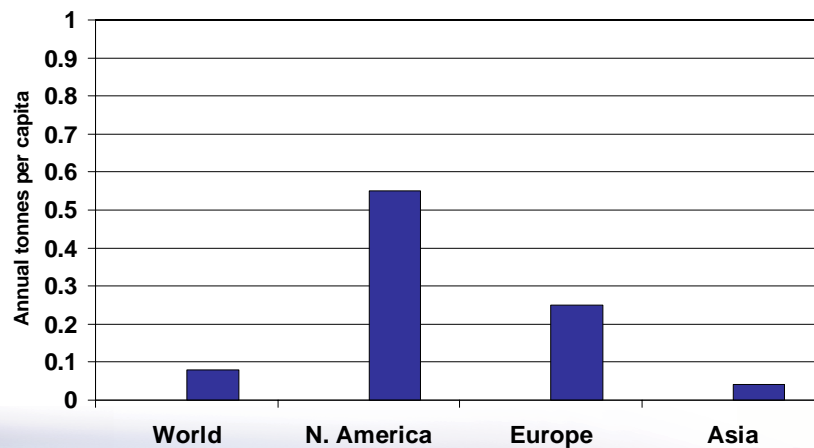
CO₂ emissions per capita

Who is lecturing who on the merits of conservation and frugality?



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Aviation CO₂ emissions per capita



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Environmental Policies : USA

- Balanced, integrated, approach for community noise and aviation emissions impact reduction
- Non-signatory to Kyoto Protocol
 - Emission reduction targets at local level
- Focus on voluntary measures
- Commitment to emission reduction through technology
 - Improve fuel efficiency per RPM by 1% per year through to 2008
 - Targeted fuel burn and CO₂ reduction of up to 15%-25%
- Supportive of global initiatives and collaborative approach
- Asia Pacific Partnership for Clean Development (APPCD)
 - US, Japan, China, India, Korea, Australia
 - Addresses aspirations of developing nations
 - Initial focus on cleaner power generation
 - Emission reduction through operational and technological improvement

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Environmental Policies : EU

- Committed to Kyoto Protocol
- Governments responding to pressure from NGOs
- Strict regulation of noise and emissions
- Articulated goal of reducing CO₂ emissions by 50% by 2020
 - Aim to extend regulations to cover other emissions
- Targeting reductions in demand for air transport
 - Economic measures: taxes, charges, emissions trading
 - Promoting alternative transport modes e.g. subsidies for rail travel
- Domestic EU focus and bias towards unilateral action, even when there is extra-territorial impact
- Dismissive of the views of external stakeholders



Environmental Policies : Asia Pacific

- Objective of raising living standards and alleviating poverty
- Positive economic and social contribution of aviation enjoys broad support within society
- Focus on responsibly satisfying growth in demand for air travel
- Not signatories to the Kyoto Protocol
 - with the exception of Japan and New Zealand
- Already strong incentives to maintain efficient operations
 - Asia Pacific aviation already compliant with international standards
 - Voluntary commitments to continuous improvement
 - Important for all elements of the supply chain to contribute
- Asia Pacific Partnership for Clean Development (APPCD)
 - May provide a forum for aviation initiatives



Conclusions

- Aviation makes a positive contribution to human development
- But as a carbon-dependent industry, our “license to grow” is contingent on continuing public/political support
- Already strong incentives to maintain efficient operations
- Society’s response to climate change requires global, multi-sector, collaboration
- Support the leadership role of ICAO
 - Recognise difficult political realities
 - Challenges in reconciling conflicting aims and objectives
 - Be prepared to compromise

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