Adaptation
and inter-agency co-ordination: a tourism perspective

Chris Lyle, Representative of the World Tourism Organization (UNWTO) to ICAO
Montréal, 13 May 2010
Climate change is NOT an abstract concept for tourism
Tourism and climate change adaptation

- Direct impacts (winter sports holidays, sun-and-sea destinations, infrastructural damage, higher operating expenses, etc)
- Indirect environmental change impacts (water availability, biodiversity loss, coastal erosion, etc)
- Impacts of mitigation policies on tourism mobility (changing travel patterns)
- Indirect societal change impacts (negative repercussions on climate change security hotspots)

Adaptation is ALREADY UNDERWAY
Major climate change impacts affecting tourism destinations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>WS</td>
<td>Warmer summers</td>
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<tr>
<td>WW</td>
<td>Warmer winters</td>
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<tr>
<td>EE</td>
<td>Increase in extreme events</td>
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<tr>
<td>SLR</td>
<td>Sea level rise</td>
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<tr>
<td>LB</td>
<td>Land biodiversity loss</td>
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<tr>
<td>MB</td>
<td>Marine biodiversity loss</td>
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<tr>
<td>W</td>
<td>Water scarcity</td>
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<td>PD</td>
<td>Political destabilization</td>
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<tr>
<td>TCI</td>
<td>Travel cost increase from mitigation policy</td>
</tr>
<tr>
<td>D</td>
<td>Increase in disease outbreaks</td>
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</tbody>
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[Map showing major climate change impacts affecting tourism destinations.]

**Hotspot**
Aviation and climate change adaptation

• Passenger mobility (changing travel patterns, cf tourism)
• Operational safety impacts (more frequent hostile weather, more intense weather systems, etc)
• Infrastructural impacts (low-lying airports, etc)
Tourism and climate change

- Increasing intensity in requirements for adaptation is correlated with increasing potential for climate destabilization and hence with the need for mitigation.
- Even the most aggressive mitigation efforts will not eliminate the need for substantial adaptation.

Tourism is thus focused both on adaptation and on mitigation from a sectoral as well as a global perspective.
Tourism and climate change mitigation

- GHG emissions from travel and tourism are estimated to contribute about 5% in terms of global CO$_2$ emissions (less in terms of the total GHG impact)
- Air transport accounts for an estimated 40% of the travel and tourism contribution of CO$_2$ (and over well over half of the total GHG impact)
- Air transport accounts for an estimated 60% of the international contribution of CO$_2$, and is overwhelmingly dominant at medium- and long-haul

Source: UNWTO-UNEP-WMO, Climate Change and Tourism: Responding to Global Challenges, June 2008 (reconciled with IPCC reports)
Projected travel and tourism CO$_2$ emissions (‘business as usual’)

- International (2005)
- International (2035)
- Domestic (developed world, 2005)
- Domestic (developed world, 2035)
- Domestic (developing world, 2005)
- Domestic (developing world, 2035)

![Bar chart showing projected CO$_2$ emissions](chart.png)
Tourism and climate change mitigation

• “While there are many options to reduce emissions [in the travel and tourism sector], by far the greatest potential is related to air travel; reducing flight numbers and flight distances will achieve more to make tourism more sustainable than most other measures taken together.”

“Climate Change and Tourism: Responding to Global Challenges”, eCLAT, November 2007
Tourism and climate change: the Davos Declaration

“...the tourism sector....must.....

• .... progressively reduce its GHG contribution....

• ....collaborate in international strategies in transport (in co-operation with the International Civil Aviation Organization and other aviation organizations)....”

Adopted by the global Conference on Climate Change and Tourism in October 2007 and being pursued through the “Davos process”
Air transport and international tourism: Locked at the hip

- International air passengers are predominantly tourists (business and leisure travellers)
- Over half of international tourist arrivals are by air (increasing yearly, with much higher proportions for long-haul destinations)
- International tourism and air transport traffic and revenues tend to move in lockstep, with tourism being more resilient in times of uncertainty when tourists stay closer to home
International tourist arrivals, 1950 - 2020
Global air transport traffic growth and emissions targets 2009-2020

- **Industry CO2 efficiency target**
- **Contribution of alternative fuels**
- **ICAO fuel efficiency target**
- **Traffic growth (RTK)**

The chart illustrates the growth of traffic and the progress towards efficiency targets and the use of alternative fuels over the years 2009 to 2020.
Global air transport emissions

• Technological, operational and infrastructure enhancements continue to be substantial
• Developments in alternative jet fuels are promising
• But even together they fall well short for the foreseeable future of countering anticipated growth in air traffic
Global air transport traffic growth and emissions targets 2009-2020

- Industry CO2 efficiency target
- Contribution of alternative fuels
- ICAO fuel efficiency target
- Traffic growth (RTK)
Global air transport emissions

• Economic instruments will be necessary
• Such instruments have scope implications well beyond air transport and beyond national boundaries
• Emissions policy for aviation is likely to have considerable consequences for destinations depending on tourism and travel
A paradox

- Tourism is the dominant economic sector, predominantly dependent on (long-haul) international air transport.
- Tourism has enhanced establishment of nature parks and marine protection areas.
- Partly in consequence, the country is a NET ABSORBER of GHGs.

Air transport must be placed in context:
Air transport is integral to tourism and should not be treated in isolation.
A tourism perspective on air transport and climate change (1)

- Assess mitigation measures against broad spectrum travel, tourism and trade, not for air transport in isolation
- Apply UNFCCC principle of CBDR
- Give preferential treatment to air services supporting the development of tourism in developing/small aviation market countries
- Take an even-handed approach to primary users (tourism and freight) and amongst modes of transport
A tourism perspective on air transport and climate change (2)

- Earmarking/recycling of revenues from levies/trading of emissions permits to GHG mitigation activities
- Technology transfer and financing to poor countries
- Continued recognition of a key role for ICAO in technology, ATM, infrastructure and operations
- Open, collegial forum for economic instruments and any global accord specific to aviation and/or shipping, in context of the “DELIVERING AS ONE UNITED NATIONS” initiative
Delivering as one

Under the UNFCCC umbrella:

- UN providers (ICAO and IMO)
- UN users (UNWTO and UNCTAD)
- UN scientists (IPCC, UNEP, WMO)
- World Bank
- Private sector and NGOs (ATAG/IATA, ICS, ICSA, WTTC, WEF, booz&co)
- Etc

From silos to synergy
Thinking beyond the silos

- Carbon tax on accommodation to purchase carbon credits for aviation (truly “carbon neutral” destinations)?
- Carbon tax on jet fuel with proceeds to production and distribution of alternative aviation fuels?
- Hybrid closed/open emissions trading (an idea from the shipping industry)?
- Levy differentiation by route rather than solely by country (especially for LDCs and SIDS, consistent with both CBDR and Chicago)?
- Joint ICAO/IMO proposals to UNFCCC?
What if air transport doesn’t achieve?

Expect an un-coordinated patchwork of levies (some of unproven benefit), operating and capacity restrictions, even rationing, debilitating to both air transport and tourism.
Further information:

• Tourism, Air Transport and Climate Change (2007)
• Climate Change Mitigation Measures for International Air Transport (2009)
• From Davos to Copenhagen and Beyond (2009)

(www.unwto.org/climate/support/en/support.php)

“In rugby terms, the sidestep to evade being tackled on this issue will only work for so long – one day the big hit will come, and it will hurt”

Airline Business, Editorial, November 2007