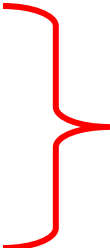




Global Tourism Emissions in 2005: CO₂ Only

| <u>Sub-Sectors</u> | CO ₂ (Mt) | |
|-----------------------------------|----------------------|-----|
| Air transport * | 515 | 40% |
| Car transport | 420 | 32% |
| Other transport | 45 | 3% |
| Accommodation | 274 | 21% |
| Activities | 48 | 4% |
| TOTAL | 1,307 | |
| Total World (IPCC 2007) | 26,400 | |
| Tourism Contribution | 5% | |


 Transportation of Tourists = 75% of Sector Emissions

* - does not include non-CO₂ emissions and impact on climate

Source: UNWTO-UNEP-WMO 2008

Carbon Emissions from the Growing Travel & Tourism Sector

Most of carbon emissions in travel and tourism come from transport -- aviation is the largest offender, but land transport also contributes.

Hotels account for 20% of the sector total.

Recent advances in aircraft design and composition are delivering improvements of 20% or more in fuel efficiency and carbon emissions.

However, those improvements in per unit efficiency are offset by the strong growth in volume of the entire sector.

**System-wide global
commercial airlines****Passenger traffic (RPK), % Year-on-Year**

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 F |
|---------------|------|------|------|------|------|------|--------|
| Global | 6.3 | 5.3 | 5.2 | 5.7 | 7.3 | 7.4 | 7.4 |
| Regions | | | | | | | |
| North America | 2.9 | 1.0 | 2.3 | 2.7 | 5.3 | 4.2 | 4.0 |
| Europe | 8.4 | 4.6 | 3.9 | 5.7 | 6.0 | 5.4 | 7.0 |
| Asia-Pacific | 6.6 | 6.1 | 7.2 | 6.9 | 10.1 | 10.9 | 10.4 |
| Middle East | 10.0 | 14.7 | 11.6 | 12.1 | 10.4 | 11.3 | 7.0 |
| Latin America | 11.3 | 9.4 | 6.3 | 7.0 | 7.6 | 4.5 | 7.5 |
| Africa | 1.6 | 7.5 | 4.6 | 0.3 | 0.0 | 9.4 | 7.5 |

Voices of Protest

Excerpt from a statement the by UK group “Plane Stupid” in 2015 in opposition to adding a new runway to London’s Heathrow Airport:

The demand for airport expansion is being driven by rich frequent flyers. Last year, less than half of people in Britain flew. Of those who did, a mere 15% of flyers took 70% of our flights. As well as noise and air pollution, poor people are paying the price in droughts, flooding and storms so that the rich can cook the planet with frequent leisure flights.

Destination tips for GHG reduction

ASEAN countries

Transport solutions:

- Electric vehicles
- Shuttle busses
- Public transport
- Create pedestrian zones
- Develop and maintain bike paths in towns and at cultural and natural sites

Reduce air conditioning usage

- Limit ceiling height in building design for hotel ballrooms and convention centers
- Tax breaks for hotel improvements
- Visitor Centers and other public buildings set good examples for others

Hotel tips for GHG reduction

ASEAN countries

Reduce air conditioning usage

- Good insulation around windows and doors
- Public areas keep the doors closed as much as possible
- Guests want air con, but not too much
- Install ceiling fans and window screens

Transport solutions:

- Electric vehicles at resorts
- Bicycle rentals (or free of charge to guests)

Reduce food waste