



The impact of climate change on tourism

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Climate change and tourism

Tourism = actor & victim

- Contribution of tourism to climate change
- Consequences of climate change on tourism

Contribution of tourism to climate change

- Emissions of global tourism in 2005* (CO₂)

- Transport 75%

- Air transport 40%

- Road transport 32%

- Others 3%

- Accommodation 21%

- Activities 4%

*(UNWTO 2007)

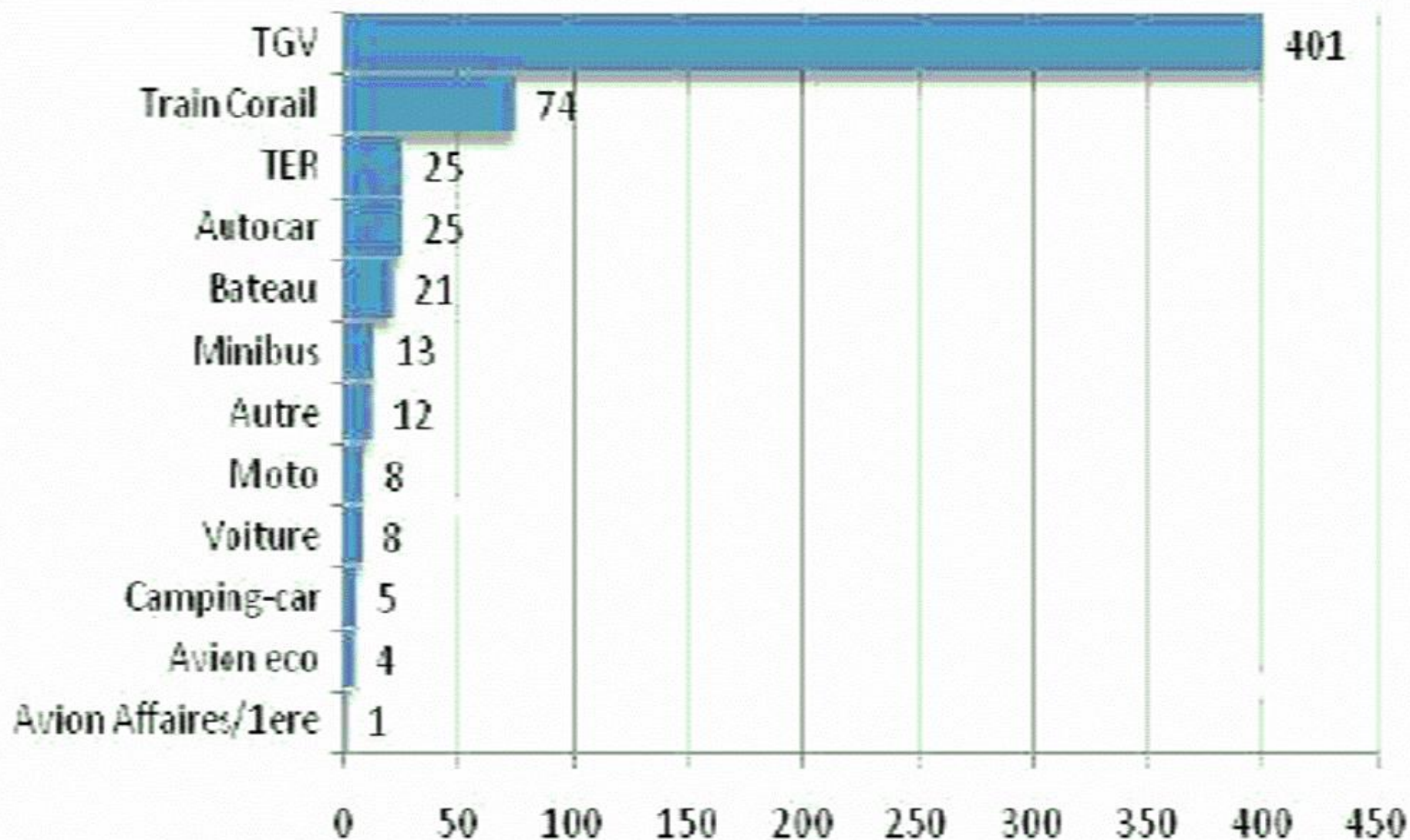
- ▶ Part of tourism in global emissions: 5%

5th after US (22%), China (18%), EU (11%) and Russia (6%)

Tourism transport

- 900 million tourist arrivals worldwide
 - Europe: arrivals > 50%
 - departures > 50%
- Transport means used
 - 88% of all tourist arrivals by motor vehicle (cars and busses) and aircraft

Distance parcourue (en km) par séjour pour 1kg d'émission en 2006



Measures in transport

- Reduction of energy consumption
 - change of transport mode (e.g. plane/car to train/bus), closer destinations, longer stays
 - Improvement of energy efficiency
 - technology
 - Development of renewable or carbon-neutral energy
 - wind, solar, biomass – difficult to apply in transport
 - Compensation of CO₂
 - reforestation
- ▶ But:
annual increase transport 5% - energy efficiency 1%

Measures in accommodation

- Reduction of energy consumption
 - heating / cooling
 - lighting
 - insulation of buildings
- Use of renewable energy
 - e.g. wind, solar, biomass
- Water
 - use
 - treatment
- Waste
 - packaging
 - treatment
- Laundry
- Low carbon footprint food & beverages

Main consequences of climate change

- Rise in temperatures
- Water shortage
- Extreme weather conditions (storms, floods, heat waves, draughts)
- Decreasing snow cover and snow reliability
- Melting of glaciers
- Loss of biodiversity
- More long-term: sea level rises

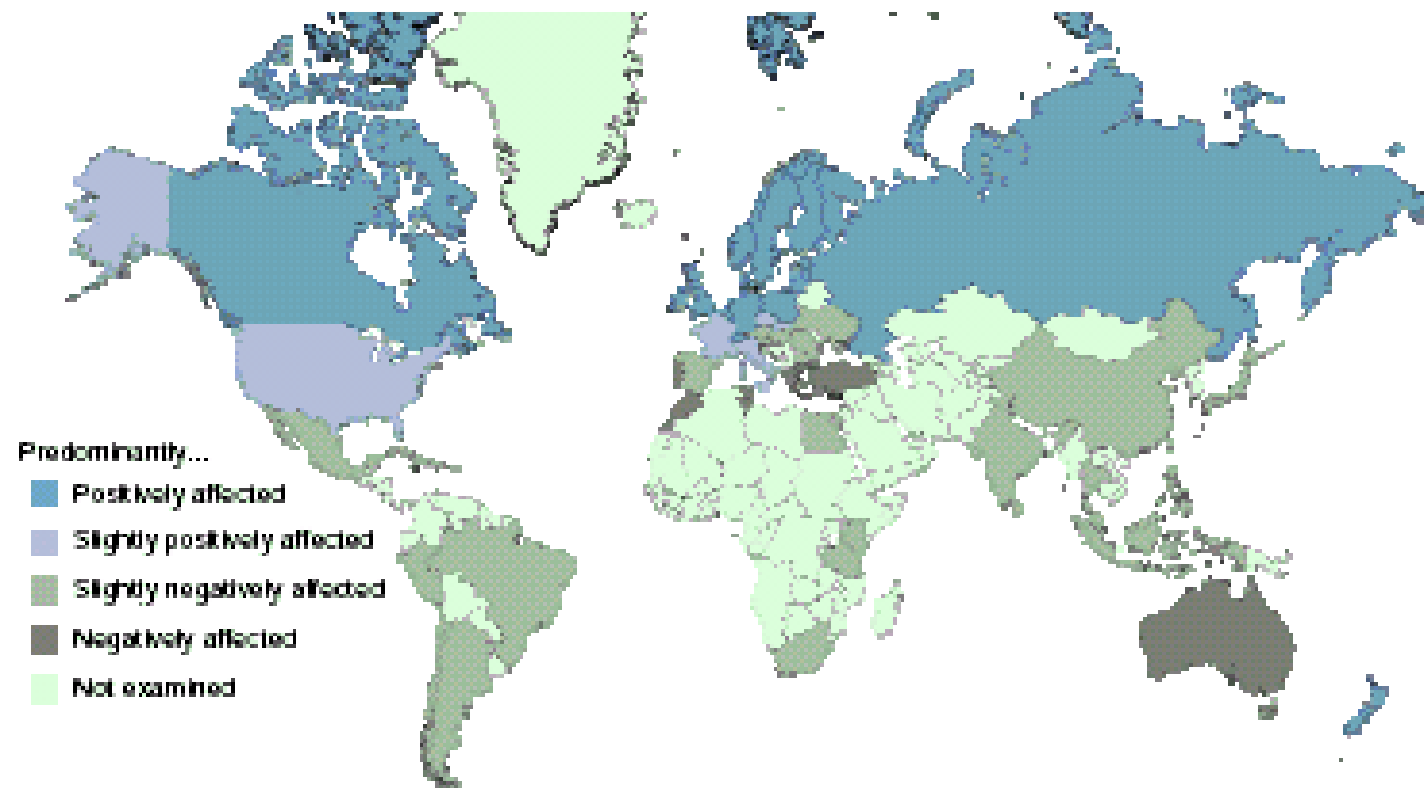
Areas expected to be most affected

- Mountains
 - e.g. less snow (snow line in the Alps: expected to rise by 300m in 2030)
- Sea side / islands
 - e.g. too high temperatures for beach holidays, floods, rising sea levels
- Natural and cultural heritage
 - e.g. forest fires, natural disasters

Consequences of climate change on tourism

- rising energy prices ► increasing cost of mobility
 - change of transport mode, shorter distance travel
- shifts in tourist flows
 - e.g. south to north, coast to inland, mountains to peaks
- cultural change and new attitudes towards travel
 - slow/responsible tourism, end of hyper mobility, away from low cost/last minute, longer stays
- new attractions
 - e.g. glacier lakes with icebergs
- **impact on employment ?**

How climate change influences tourism



Source: DB Research

Sustainable Tourism in Europe

- Sustainable tourism is still a niche product
 - less than 1 % of the tourism offers of the market do offer environmental and social quality above legal compliance
- Changing tourist behaviour
 - tourists claim to have environmental / climate change awareness, but are not ready to change their travel behaviour
- Voluntary certification
 - less than 1% of tourism offers in Europe are certified by the around 50 eco-labels and sustainable tourism certificates on regional, national and international level

Sustainable Tourism in Europe

- What to do?
 - raise awareness for climate-friendly tourism
 - measures to monitor and to reduce CO₂ emissions
 - promotion of official European eco-certificates such as EU-Eco-label & Eco-Management and Audit Scheme (EMAS)
 - overview of certified tourism offers
 - easy access for tour operators and travel agencies to the “better choice”
 - make implementation of eco-labels and /or EMAS free = no costs for auditing in order to eliminate the argument that these instruments are too expensive; companies and destinations which do not have an eco-label should pay!

Measures

- **anticipation of the impact of climate change on employment in tourism and elaboration of preventive / adaptation measures, in cooperation with all stakeholders**
 - research on climate change and tourism has to consider the impact of climate change on employment in the sector
 - tourism workers have to be informed about the consequences of climate change and must get trained in anticipating and managing the impact
 - tourism workers and trade unions should be involved in sustainability measures undertaken by companies
- information / sensitisation: educate and raise awareness among tourists about the impacts of climate change on tourism destinations
- capacity building for decision makers, entrepreneurs and staff on sustainable tourism

Measures

- integration of climate change factors into regulatory frameworks for tourism development, such as Impact Assessment for tourism infrastructure and establishments
- promotion of renewable energy sources, e.g. wind, photovoltaic, solar, thermal, geothermal, biomass and waste
- make tourism carrying capacity assessment considering physical, economic, environmental, socio-cultural and managerial aspects an obligatory tool for tourism planning
- make energy conservation and energy efficiency measures obligatory in urban planning, e.g. building, ventilation, insulation, etc.
- make water conservation techniques, such as rainwater storage, use of water-saving devices, or waste-water recycling obligatory

Conclusions

- Tourism will remain a growth sector
 - forecasted Ø annual increase of 4% until 2020
- Climate change is a challenge for the tourism sector
 - significant reduction of the growth potential of tourism in many regions
 - need for permanent change of the general framework
 - ▶ chance for more sustainable tourism?!
- But: other factors remain important as drivers for tourism growth
 - disposable income / purchasing power
 - social achievements, e.g. right to paid annual leave