

INSIDER GUIDE

CLIMATE CHANGE AND TOURISM

A GUIDE FOR MANAGERS

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A GUIDE FOR MANAGERS

With the debate on climate change escalating and the increasing media attention on aviation, it's never been so important for you to understand the key issues and ensure your company is taking action.

This guide has been written to help you do this.

"I think we should be quite scared about climate change. It's important not to be alarmist about it, but it's important to be alarmed."

DAVID MILIBAND ENVIRONMENT SECRETARY ON BBC RADIO 4'S TODAY PROGRAMME, SEPT 06

"We are behind the curve, there is no doubt that we should have acted 10 or 15 years ago,"

RICK SAMANS HEAD OF THE DAVOS-BASED WORLD ECONOMIC FORUM AND ONE OF THE WORLD'S MOST PROMINENT BUSINESS LEADERS, G8 MEXICO, OCT 06

"We mustn't forget that tourism can bring immense benefits to destinations and the people who live there. Helping to conserve natural and cultural assets and injecting much-needed cash in to local economies."

SUE HURDLE, CHIEF EXECUTIVE, THE TRAVEL FOUNDATION

SUSTAINABLE TOURISM – THE NEW IMPERATIVE

- Reducing the carbon emissions of your business in the UK and encouraging your suppliers overseas to do the same.
- Letting your customers know what they can do to make a positive difference when they travel.
- Maximising the benefits of tourism – economic, social and conservation – for destination communities.

SUSTAINABLE TOURISM IS GOOD NEWS FOR TRAVEL – A POSITIVE MESSAGE FOR YOUR CUSTOMERS, SHAREHOLDERS AND THE MEDIA.

AT A GLANCE

EXECUTIVE SUMMARY

| | PAGE | | PAGE |
|--|------|--|------|
| – There is now compelling evidence that global warming is a reality. | 3 | – In the future, it is possible that governments will increase regulation and enforce some type of limit on travel. | 4 |
| – Global warming will significantly affect many of the tourism destinations we sell today. | 3 | – There is a great deal companies can do now to reduce their carbon emissions within their business in the UK and with their overseas suppliers. Take a look at our recommendations. | 5 |
| – The principal greenhouse gas is carbon dioxide (CO ₂) and in tourism this is generated from air travel and ground activities (for example road transport and accommodation). Other emissions from aircraft at cruise heights could also make contributions to warming and work is underway to understand these better. | 3 | – Companies must ensure that airlines used are committed to sustainable aviation, and can also explore credible carbon offset schemes to mitigate damage caused by aviation. | 5 |
| – We have to balance the environmental impact of travelling with the immense benefits sustainable tourism can bring to destinations and the people who live there. | 4 | – Communicating with customers on the issues and helping them understand what they can do to reduce their carbon footprint on holiday is very important. | 7 |
| – Although CO ₂ emissions from aviation are only a small proportion of the total, travel is predicted to grow rapidly and so aviation is a major source of concern for governments, environmental organisations and the media. | 4 | – With the contribution aviation makes to climate change, it is important for every company to act now. To take every measure to reduce its carbon footprint and help preserve the future of travel. | 10 |
| – Future policy and legislation could include increased taxation and compulsory emissions trading. We will certainly see an increasing focus on fuel and operational efficiency and the launch of further carbon offsetting schemes for consumers. | 4 | – If the industry fails to take sufficient steps, it leaves itself open to increased government intervention and ultimately some limitation on travel. | 10 |
| | | – We urge every manager to review the recommendations in this guide and work within their management teams to ensure effective action is taken as a priority. | 10 |

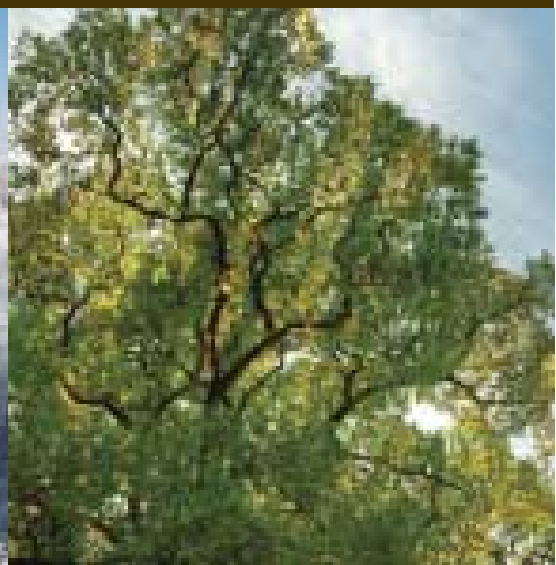
Supplementary information can be found from page 11.

THE ISSUE

THERE IS NOW WIDESPREAD SCIENTIFIC CONSENSUS THAT MAN, PRINCIPALLY THROUGH THE USE OF FOSSIL FUELS (COAL, OIL AND GAS, THE BURNING OF WHICH EMITS CO₂), IS CONTRIBUTING SIGNIFICANTLY TO GLOBAL WARMING.

The potential consequences of global warming include significant changes to many of the tourism destinations you sell today. Sea levels will continue to rise and are predicted to threaten a number of small islands in the Caribbean and Pacific. Increased temperatures will have a dramatic impact on the ski industry, as ski-fields retreat to higher altitudes and seasons shorten with milder winters. In the Mediterranean, increased temperatures could simply become too hot and uncomfortable for UK holidaymakers, and bring with it incidences of disease and weather patterns typically confined to the tropics now. Temperatures at a wide range of tourism destinations around the world are predicted to rise by about 0.3 to 0.8°C per decade. You can understand just how dramatic this is when you consider that the last ice age came about with a reduction of 5°C.

The principal greenhouse gas is carbon dioxide (CO₂). In tourism the CO₂ is generated primarily from air travel to and from destinations, as well as from road transport, accommodation and other activities on the ground. Other emissions from aircraft at cruise heights may also make significant contributions to warming. These include condensation trails and thin wispy cirrus cloud which can be formed after an aircraft flies through very cold and wet parts of the upper atmosphere. There are also indirect effects of nitrogen oxides (NO_x) emitted at altitude. NO_x has two indirect effects, it leads to warming through the formation of ozone, but also leads to cooling through the removal of methane. The effects of NO_x do not cancel each other. These non-CO₂ effects are not yet as well understood, although we do know they are not as long lasting as CO₂. Hence concentration on reducing CO₂, whilst working to understand other effects better.



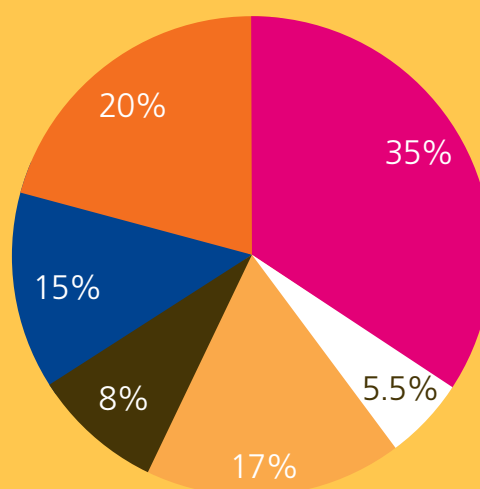
CO₂ emissions from aviation are only 5.5% in the UK, and much less globally at 2-2.5% – a small proportion of the overall total.

Other industries contribute far more in terms of carbon emissions. Nevertheless, travel and tourism are growing rapidly (predicted to rise between 4-6% annually) and any increase in fuel efficiency will probably not be sufficient to prevent an overall increase in carbon dioxide generation.

Just think, 'no frills' was nowhere ten years ago and this has had a dramatic effect on how often people travel. In contrast, road transport has been fairly stable, with no significant increase. This is why aviation is a major source of concern for governments, environmental organisations and the media. However, the benefit that tourism can bring to destinations, means that to many countries it is an economic necessity.

The balance to environmental concerns is the immense benefit sustainable tourism can bring to destinations and the people who live there. It can help conserve natural and cultural assets and inject much-needed cash in to local economies. Many tourism destinations rely on tourism, for example in Cyprus it provides 30% of employment opportunities and 23% of GDP.

The term 'carbon footprint' refers to the impact of the amount of greenhouse gases produced by an individual's or company's activities. This is measured typically in tonnes of carbon dioxide. Aside from the air travel, it is possible that the carbon footprint of a holiday could be less than staying at home. Companies and travellers need to take every step to minimise the environmental impact of their trip.



ENERGY INDUSTRIES
DOMESTIC & INTNL AVIATION
OTHER INDUSTRY
OTHER
RESIDENTIAL
ROAD

UK emissions of CO₂ – the 5.5% aviation figure is all domestic and international flights departing from the UK. Derived from DEFRA statistics, and data reported in Hansard for international emissions.

WE HAVE REACHED A POINT WHERE WE MUST ALL DO MORE TO PREVENT SERIOUS CLIMATE CHANGE. WITH THE CONTRIBUTION TRAVEL MAKES, IT'S IMPORTANT FOR EVERY COMPANY OR INDIVIDUAL TRAVELER TO TAKE EVERY MEASURE TO REDUCE ITS CARBON FOOTPRINT AND HELP PRESERVE THE FUTURE OF TRAVEL – AND THAT OF THE PLANET.

WHAT CAN COMPANIES DO NOW?

THERE IS A LOT YOU CAN DO TO HELP YOUR COMPANY REDUCE CARBON EMISSIONS AND DRAMATICALLY SAVE ENERGY COSTS. IF YOU ARE NOT DIRECTLY RESPONSIBLE, THEN ASK QUESTIONS AND RAISE CONCERNS WITHIN THE MANAGEMENT TEAM, IN ORDER TO HELP DRIVE ACTION.

THE COST OF WASTED ENERGY

Energy bills can be a significant cost for businesses – and not just for big companies. Small and medium-sized UK firms alone spend about £6bn a year on energy, according to government-funded energy advisers The Carbon Trust. What's more, the Trust reckons that £1bn of this is wasted. By doing very simple things, businesses could cut their energy costs by 20% – just by turning off lights, machinery and setting timers.

TAKE ACTION TO REDUCE CO₂ EMISSIONS

WITH AVIATION:

- Make sure your own company airline or the airlines that you use are committed to sustainable aviation. There are many ways that aircraft can improve fuel efficiency – see additional information on aviation, page 11 and at www.sustainableaviation.co.uk and www.greenerbydesign.org.uk.

IN THE UK OFFICE:

- Undertake an energy audit, using a recognised expert. The Carbon Trust (www.carbontrust.co.uk) provides free surveys to organisations with energy bills greater than £50,000 per year. Smaller companies can also benefit from advice over the phone. Another organisation which can help is Global Action Plan (www.globalactionplan.org.uk).
- Check the thermostats and timers on your heating – and remember to change timers to

reflect British Summer Time. If your workplace has thermostatic valves on radiators, use them. A one-degree centigrade reduction could reduce energy consumption by as much as 10%.

- Air conditioning can dramatically increase energy usage. It can account for over 30% of annual electricity consumption. Set temperature controls as high as possible in summer – and 24°C or more at other times to ensure it is not operating at the same time as heating. Ensure all doors and windows are closed or fit simple cut-off switches that can immediately turn off air conditioning when an external door is opened.
- Turn off all non-essential equipment overnight – including photocopiers, PCs, monitors, printers and lights where possible. Use time switches.
- Make sure that all electric lights and fittings are regularly maintained and cleaned. Dirt can reduce the amount of effective light by over 25%.
- Where possible, buy energy from a company offering alternatives to fossil fuelled power stations, using renewable resources.
- Make energy savings through alternative technology and energy-efficient appliances (for example, replace all bulbs with energy-efficient ones, typically 75% more efficient). Ensure any energy saving features on equipment is activated. Some ideas are available at www.egeneration.co.uk/centre/modules/green_office/



- Implement sustainable transport schemes, for example by encouraging staff to cycle, walk or share lifts to work where possible.
- Reduce paper consumption and recycle paper and other materials.
- Get involved in industry association initiatives – join The Travel Foundation's Forum – to work with government and other stakeholders to understand CO₂ impacts better and find solutions.
- Involve your staff – create a forum for their ideas and get staff at all levels behind the action. Try an award scheme – saving energy saves money.

WITH YOUR OVERSEAS SUPPLIERS:

Encourage tourism suppliers in destinations to adopt carbon saving measures.

- **Transport:** Explore usage of energy efficient transport for transfers and excursions (for example using new / well maintained vehicles and potential for electric vehicles or alternatives such as Liquefied Petroleum Gas and fuel from biomass as these technologies develop). Explore the potential for some excursions to involve cycling and walking, getting customers closer to the country they have come to visit. Check out The Travel Foundation's 'Guide to developing a sustainable excursion', which also helps you to audit current excursions (www.thetravelfoundation.org.uk – 'tools, training & guidelines')
- **Accommodation :** Encourage suppliers to self-audit – or audit yourself – and then work towards improving environmental good practice. The Travel Foundation and The Federation of Tour Operators (FTO) are creating training materials and guidelines for accommodations to help them take action, so make sure you encourage your suppliers

to use these once they are available (early in 2007).

- **Office and staff homes:** Encourage good environmental practice with the energy-saving tips on previous page.

The FTO has also produced guidelines for their suppliers in the form of a 'Supplier Sustainability Handbook'. This is supported by the 'Sustainability Store', a 'one-stop-shop' to assist companies in improving their environmental (and social) performance. This can be accessed through the 'Travellife' website www.its4travel.com – just click on the Union Jack flag.

COMMUNICATE WITH YOUR CUSTOMERS

- Give your customers information on how they can help. See The Travel Foundation's range of Insider Guides – visit www.thetravelfoundation.org.uk – 'engage your customers'. Encourage customers to 'switch off' before they leave for their holiday (turning down/off central heating and hot water systems, switching off all lights – using low energy bulbs in security lights – turning off appliances at mains, rather than leaving on standby.) and save as much energy as possible all year: the Energy Saving Trust asks homeowners to commit to saving 20% of the energy they use with simple and easy steps (www.energysavingtrust.co.uk/commit).

BEFORE YOU GO

- Start enjoying your holiday before you go by doing some background reading on the people and places you'll be visiting. Your welcome will be warmer if you take an interest and speak even a few simple phrases in the local language.
- Recycle your holiday brochures when you've finished with them or pass them on to a friend.
- Please don't bring your litter on holiday with you. Remove the packaging from clothing, toiletries etc. and recycle if possible.
- Consider compensating for the environmental impact of your flight. Ask your tour operator if they are part of any 'carbon-offset' scheme or see www.climatecare.org.uk, www.futureforests.com or www.foc-uk.com for details.

YOU CAN MAKE A HUGE DIFFERENCE, JUST BY FOLLOWING THIS SIMPLE ADVICE...

EXPLORING THE AREA

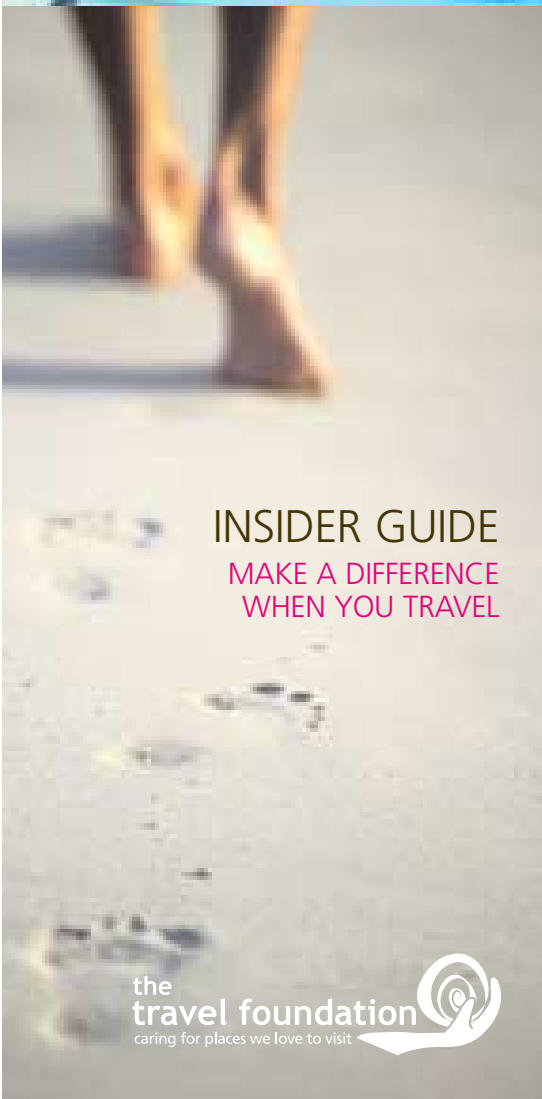
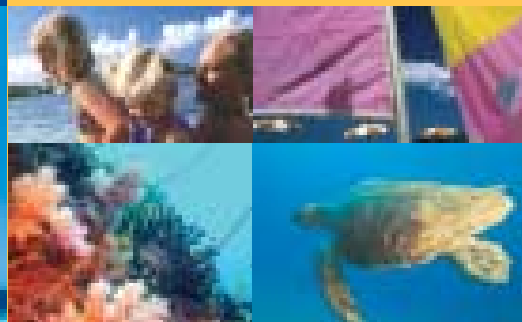
- Guidebooks are a useful source of information, but get 'insider' knowledge by talking to local people, explore places away from the main tourist sites and create your own adventure.
- Booking excursions that use local suppliers or local guides and taxis will enrich your holiday experience and help support the local economy.
- Hire a car only if you need to. Using public transport, bicycles and walking are 'environmentally friendlier' alternatives and a great way of meeting local people. Check out local alternatives with your travel / accommodation provider.
- Ask permission before taking photographs of people or their homes and don't be offended if they decline or expect to be paid for the privilege.
- Fire is a serious hazard. Be extremely careful with cigarettes and matches and take your cigarette stubs with you.
- Please don't pick flowers and plants or collect pebbles and seashells. Leave them for others to enjoy.
- Do ask attractions for advice before you take part in a 'Swim with Dolphin' experience – there can be risks to both dolphins and people (for example, dolphins being injured by jewellery worn during the swim).
- Please don't support dancing bear performances if you are travelling in Eastern Europe, northern Greece or India. Such bears are taken from the wild and are treated very cruelly.

SHOPPING

- Buying locally made products, shopping in locally owned outlets and treating yourself to local food and drink are great ways to get into the holiday spirit and also benefit the local community.
- Always bargain with humour and bear in mind that a small cash saving to you could be a significant amount of money to the seller.
- Please don't buy products made from endangered plants or wild animals, including hardwoods, corals, shells, starfish, ivory, fur, feathers, skins, horn, teeth, eggs, reptiles and turtles. If in doubt – please don't buy. For more information on endangered species and the WWF-UK Souvenir Alert Campaign for tourists and to find out how to report a concern – visit www.wwf-uk.org.

AT YOUR ACCOMMODATION

- Turn down/off heating or air conditioning when not required. Switch off lights when leaving a room and turn the TV off rather than leaving it on standby.
- Try to use water sparingly. Take showers instead of baths and inform staff if you are happy to re-use towels and bed linen rather than having them replaced daily.



INSIDER GUIDE
MAKE A DIFFERENCE
WHEN YOU TRAVEL

the
travel foundation
caring for places we love to visit

the
travel foundation
caring for places we love to visit

INSIDER GUIDE
MAKE A DIFFERENCE
WHILE YOU PARTY



MAKE A WORLD OF DIFFERENCE

The Travel Foundation is a UK charity that cares for the people and places we love to visit.

By following the simple advice in this leaflet, you can get more out of your holiday – and make a positive difference to favourite destinations. Just little things can make a big difference, helping to ensure that we all have somewhere special to holiday, into the future!

To find out much more about The Travel Foundation and to access 'Insider Guides' for specific destinations, please visit our website at www.thetravelfoundation.org.uk.

the
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caring for places we love to visit

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INTRODUCE CARBON OFFSETTING

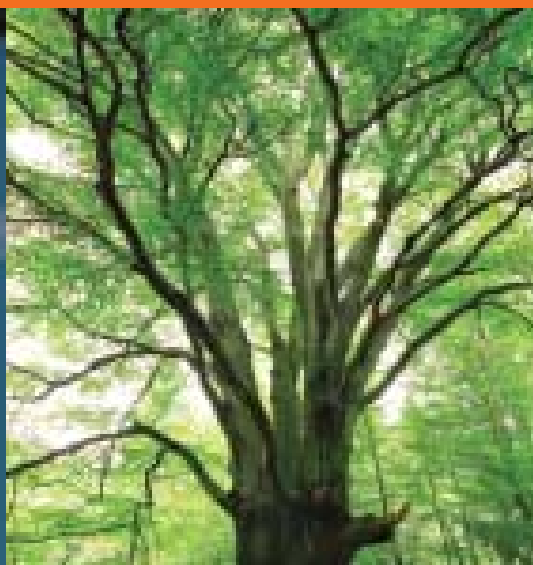
To compensate for unavoidable emissions, a reduction can be made elsewhere by 'offsetting'. This involves investing in a project that will reduce CO₂ emissions to compensate for emissions arising from your activities, such as travel. Although there are concerns over the nature of some of the schemes, it is something that can be implemented immediately and it does stimulate investment in carbon reduction. The important thing is that any offsetting is not seen as a replacement for taking all other steps to reduce CO₂ emissions.

It is important that companies research the reputation and integrity of offset organisations before launching a scheme. There are currently no trade standards relating to offsets, but you can look for an organisation that has its reductions verified by a credible third party.

A PC MONITOR LEFT ON OVERNIGHT WASTES ENOUGH ENERGY TO LASER PRINT 800 A4 COPIES

A TYPICAL WINDOW LEFT OPEN OVERNIGHT IN WINTER WILL WASTE ENOUGH ENERGY TO DRIVE A SMALL CAR OVER 35 MILES

LIGHTING AN OFFICE OVERNIGHT WASTES ENOUGH ENERGY TO HEAT WATER FOR 1000 CUPS OF TEA.



FUTURE DEVELOPMENTS ...

This is a fast moving area, but we will outline some of the possible developments.

GOVERNMENT INTERVENTION – TAXATION / POLICY

There have been many calls from environmental groups for 'green' taxes and of course each passenger already pays Air Passenger Duty, in the UK. This duty (£900m per annum) has not affected demand for flights or had any effect on climate change. None of the revenue raised has been used by the government to benefit the environment. Although some organisations are lobbying for greater taxation, many believe this is a blunt instrument and ineffective in bringing environmental benefit. The October 2006 Stern report, for the UK Government, concluded that policy to reduce emissions should be based on three essential elements: carbon pricing, technology and removal of barriers to behavioural change. Establishing a carbon price, through tax, trading or regulation, is seen as an essential for climate-change policy.

FUEL EFFICIENCY

There are many ways to improve the fuel efficiency of aircraft and to reduce the climate impact of flying, including better engines, changes in the way aircraft are flown and even the possible use of alternative fuels such as kerosene from biomass. Work is already going on in these areas but it will take some time before they contribute significantly.

OPERATIONAL EFFICIENCY

Air traffic service providers such as Eurocontrol, NATS (the UK's National Air Traffic Services), and others, are looking at operational improvements including more direct routes between departure and destination airports.

GLOBAL EMISSIONS TRADING

Global emissions trading in CO₂ has been

advocated as one of the most cost effective approaches, although this would probably not be sufficient on its own. In such systems an overall cap is set on emissions and allowances are distributed according to an agreed process. Those companies that emit more than their allowed amount can buy from those that emit less. There are moves at the UK and EU levels to include aviation in the current European Trading System within a few years.

PERSONAL CARBON ALLOWANCES

Although ideas such as personal carbon allowances have been proposed, it is unlikely we would see such schemes, particularly in the shorter term.

OTHER

- **Direct charges:** Other options such as charges (where the money collected is directed towards reducing the targeted source of damage) are also likely to be considered. Charges have been used for many years at some airports in the UK to encourage operators to use less noisy aircraft and are also used to encourage aircraft that emit less NO_x, which can adversely affect local air quality. There is some dispute over the effectiveness of these NO_x charges.
- **Increased legislation:** As understanding and the imperative to take action grows, governments will need to evaluate what other steps they can take to enforce action. We cannot rule out the possibility of measures to limit travel.

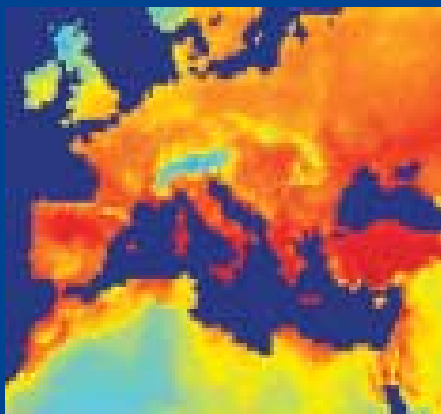
If the travel industry does not take urgent steps to reduce carbon emissions, it leaves itself open to increased government intervention, and ultimately, limitations on travel.

TAKE THE FUTURE IN TO YOUR OWN HANDS – STEP UP ACTION TODAY AND SECURE THE FUTURE OF TRAVEL AND TOURISM.

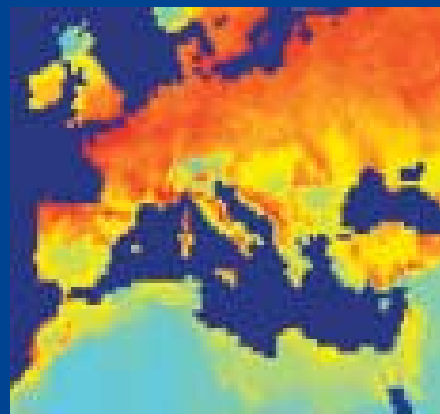
ADDITIONAL INFORMATION

WE HAVE PULLED TOGETHER ADDITIONAL INFORMATION AND FACTS FOR THOSE WHO WANT TO KNOW MORE.

CLIMATE CHANGES AND TOURISM



1961-90

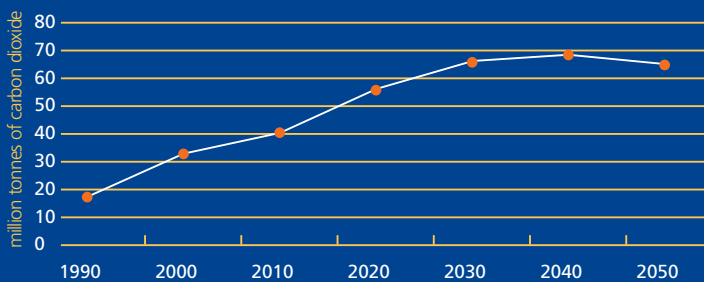


2050

The map on the left shows that the Mediterranean has an ideal climate for tourism, whilst northern Europe does not. By the 2050s, increasing temperatures across the continent will result in a profound shift in the suitability of destinations for tourism. Images from Bas Amelung and David Viner, see *Journal of Sustainable Tourism*, Vol.14, 2006.

PLEASE NOTE: The colours on the maps do not relate to temperature.

AVIATION



Predicted growth in carbon dioxide emissions from UK aviation.

Source, Department for Transport – other predictions of growth vary.

The 1999 IPCC (Intergovernmental Panel on Climate Change) report remains the best source of estimates of the present and future impact of aviation emissions on the climate. It stated that emissions of CO₂ from aviation were about 2% of carbon dioxide emissions in 1992. It was predicted that aircraft emissions of CO₂ would

grow 3 fold by 2050 and would then account for 3% of the projected overall emissions. The recent Stern report indicated that in 2050 under 'business as usual' projections CO₂ emissions from aviation would represent 2.5% of global CO₂ emissions. Taking into account the non-CO₂ effects, aviation would account for around 5% of the total warming effect.

WHAT ACTION IS BEING TAKEN?

- Aviation is a truly global industry and ultimately the ways to address global warming in general and aviation's impact in particular will require global solutions. The International Civil Aviation Organisation (ICAO) is addressing aviation at this level.

- Greener by Design are liaising with manufacturers over climate impact of future aircraft. www.greenerbydesign.org.uk
- The UK aviation industry's Sustainable Aviation Strategy is addressing the climate impact of the industry and other major environmental and social issues faced by the industry. www.sustainableaviation.co.uk
- The aerospace industry in Europe has made progress towards a target of a 50% overall improvement in fuel efficiency for new aircraft entering service in 2020 relative to new aircraft entering service in 2000. There is a parallel target of 80% reduction in NOx emissions.
- The above 50% includes operational changes, such as improvements to air traffic management, to lead to more direct flights – these alone could reduce aviation fuel burn by 8-18%. Long term changes could include fuel based on biomass from crops or even growing algae, although that is more likely to apply to ground transport.
- Emissions trading – A recent opinion survey for the British Air transport Association revealed that 56% of people are concerned about the environmental impacts of air travel, but that only 13% have changed their travel habits as a result. The majority (82%) expect air travellers to pay the cost and the most popular option selected (48%) was through airlines being part of an international emissions trading scheme. In such a scheme it is proposed that companies such as airlines, facing increases in CO₂ emissions could buy credits from other companies that reduce emissions, within an overall limit that forces overall emissions downwards.
- In September 2005 the European Commission announced that aviation should, in principle, be included in the EU Emissions Trading Scheme (EUETS). The Commission expects to publish specific recommendations before the end of 2006. The EUETS is likely to address at least intra-European flights.
- A new knowledge transfer network, OMEGA, is being set up. The £5 million government-funded project will link universities, government, industry and pressure groups in a common goal to foster knowledge transfer from research centres (the universities) to industry. The purpose is to better understand the overall climate impact of aviation and drive towards the environmental sustainability of air travel.
- More than £130 million has been committed to major research and technology validation programmes. The main focus for these programmes is more environmentally friendly engines, more efficient wing, fuel and landing systems, as well as increased understanding of aerodynamics and advanced materials and structures. This work is part of the National Aerospace Technology Strategy and is being jointly funded by industry, Government and regional development agencies.
- Other ongoing actions include: agreeing ways in which to measure and report on fuel burn and carbon dioxide emissions; implementing ways to reduce use of auxiliary power units (generators in aircraft tails fuelled by kerosene, used to provide power for essential services while passengers are boarding and disembarking and the main engines are not running); with Air Traffic Control, encouraging airlines to fly using a continuous descent approach procedure to reduce fuel burn and noise; liaising with manufacturers over climate impact of future aircraft.

CLIMATE CHANGE – SOME OF THE EVIDENCE

- NASA (US National Aeronautics and Space Administration) scientists warn that the world is the warmest it has been in the last 12,000 years, due to rapid changes in the past three decades. Their report in September 2006 states that pollution is pushing the world towards dangerous levels of climate change.
- The 10 warmest years on record have all been since 1990.
- Sea levels are rising and some forecasts suggest a rise of another 88cm by 2100 threatening 100 million people globally. By the middle of this century, temperatures could have risen enough to trigger irreversible melting of the Greenland ice-cap – eventually increasing sea levels by around seven metres.
- The number of people affected by floods worldwide has already risen from 7 million in the 1960s to 150 million today.
- Swiss Re, the world's second largest insurer, has estimated that the economic costs of global warming could double to \$150 billion each year in the next 10 years, hitting insurers with \$30-40 billion in claims.
- There is good evidence that the 2003 European heat wave was influenced by global warming. It resulted in 26,000 premature deaths and cost \$13.5 billion.

A PC MONITOR SWITCHED OFF OVERNIGHT (INSTEAD OF LEAVING IT ON STAND-BY) SAVES ENOUGH ENERGY TO MICROWAVE SIX DINNERS

LEAVING A COMPUTER ON 24/7 COSTS FOUR TIMES MORE THAN IF YOU SWITCH IT OFF AT NIGHT AND WEEKENDS

A PHOTOCOPIER LEFT ON OVERNIGHT USES ENOUGH ENERGY TO PRODUCE OVER 1500 COPIES



HOW CARBON IS GENERATED AND HOW IT CAN BE REDUCED

TEN TONNES OF CO₂ IS GENERATED BY:

- 30,000 miles in an average petrol car
- 82,000 miles personal travel in a bus
- Running 86 PCs for a year
- Annual average domestic energy consumption for 9 residents of England
- 14 long haul air trips or 110 short haul trips
- 100,000 miles on a train
- A large cruise ship cruising for fifteen minutes

THIS AMOUNT CAN BE SAVED BY:

- 100 offices switching off non-essential equipment for one night
- 10-20 households turning down central heating by 1 degree over a year
- 50 households replacing traditional light bulbs with energy-efficient ones
- 50-100 holidaymakers who already choose not to use a car whilst on holiday

IN YOUR OFFICE – ENERGY SAVING:

- A PC monitor left on overnight wastes enough energy to laser print 800 A4 copies
- A PC monitor switched off overnight (instead of leaving it on stand-by) saves enough energy to microwave six dinners.

- A photocopier left on overnight uses enough energy to produce over 1500 copies.
- Lighting an office overnight wastes enough energy to heat water for 1000 cups of tea.
- A typical window left open overnight in winter will waste enough energy to drive a small car over 35 miles.
- Leaving a computer on 24/7 costs four times more than if you switch it off at night and weekends
- Substantial savings are possible through efficient air-conditioning.

RELATING CARBON TO FLYING:

- A 747 jumbo jet flying to Miami and back from London will emit 550 tonnes of CO₂
- A 10,000km overall return flight (Manchester to Boston) for one person is about 1 tonne of CO₂

For more information and guidance start with www.carbontrust.co.uk



FURTHER INFORMATION

www.world-tourism.org/sustainable/climate/brochure

www.treasury.gov.uk/independent_reviews/stern_review_economics_climate_change/sternreview_index.cfm (Stern Report, October 2006)

www.sustainableaviation.co.uk (UK aviation industry Sustainability Strategy)

www.greenerbydesign.org.uk. (For reports on market based options, operational and technological improvements)

<http://www.ipcc.ch/pub/reports.htm> (For the report 'Aviation and the Global Atmosphere')

See also website links within the main leaflet

MAKE A WORLD OF DIFFERENCE

The Travel Foundation is a UK charity that is helping the travel industry take effective action on sustainable tourism. Helping to care for the people and places our customers love to visit. Important work, as it improves product quality and protects the resources on which business depends.

The Foundation has placed climate change and the need for the industry to reduce carbon emissions firmly on its agenda, with an emphasis on action at destinations.

To find out much more about The Travel Foundation and to access an electronic version of this guide, with additional information (which will be updated regularly), please visit our website at www.thetravelfoundation.org.uk

THE UK IS TAKING A LEAD IN CHANGING THE WAY THE WORLD TRAVELS

First edition, November 2006



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