

# IMPACT OF CLIMATE CHANGE ON TOURISM

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The promoters of 'adventure-' or 'ecotourism' have popularized slogans such as: "Go visit the last paradises... before they'll be destroyed by tourist hordes." In a similar fashion, the British daily The Observer recently suggested that world travellers need to hurry up if they want to see the '10 wonders of a vanishing world'. According to the related article, the most wondrous natural tourist attractions we can no longer take for granted due to global warming include:

Africa's highest mountain - the spectacular Kilimanjaro in Tanzania will never look the same as snows are disappearing at an alarming rate.

The Caribbean coral reefs - particularly the Meso-American reef, the world's second biggest, stretching from the coast of southern Mexico down past Belize and into Honduras, is threatened by a three-fold environmental disaster: Warmer water disrupts coral growth; acidic water affects coral's abilities to secrete new skeletons; and increasingly intense hurricanes break it up. As a result thousands of marine species are on the brink of extinction.

The Maldives in the Indian Ocean - many tropical islands forming the Indian Ocean archipelago are likely to become submerged in the next two decades as a result of rising sea levels and increasing numbers of heavy storms.

Traditional ski resorts in the Alps such as Kitzbuhel in Austria for example will disappear from the tourist map within 20 years because of the lack of snow.

Furthermore, the future of many unique animal species that have attracted wildlife tourism is in jeopardy as habitats, breeding grounds and migration routes are changing. If global warming gets worse, entire populations of polar bears in the Arctic region, Wildebeests in East Africa, Mountain Gorillas in Uganda and Rwanda or Monarch Butterflies in Mexico may be destroyed.

**Tourism world wakes up to the climate crisis**

Climate is an essential resource for tourism, and especially for beach, nature and winter sport tourism, and the phenomenon of global warming already gravely affects the industry and an increasing number of destinations. In 2003, the Madrid-based UN World Tourism Organization (UNWTO) convened the 1st International Conference on Climate Change and Tourism in Djerba, Tunisia, to help the travel and tourism industry to respond to these issues. The UNWTO, that only a few years ago became a special UN agency, is traditionally driven by a strong Business Council that aggressively advances the interests of the world's most powerful tourism-related corporations.

That the UNWTO declared climate change a priority issue shows the growing awareness among industry leaders and policymakers that the impacts of global warming pose a serious threat to tourism - one of the world's largest and fastest growing industries, generating over 10.4 per cent of world GDP, according to the World Travel and Tourism Council (WTTC).

Notably, the Djerba conference recognized that the relationship between climate change and tourism is two-fold: Not only is tourism affected by a changing climate, at the same time it contributes to climate change by the consumption of fossil fuels and resulting greenhouse gas emissions. It was concluded that there was an "urgent need for the tourism industry, national governments and international organizations to develop and implement strategies to face the changing climate conditions and to take preventive actions for future effects, as well as to mitigate tourism's environmental impacts contributing to climate change." (Djerba Declaration 2003).

Also the burgeoning international ecotourism industry feels challenged. At the recent Global Ecotourism Conference 2007 (GEC07) that was jointly organized by The Ecotourism Society (TIES), Ecotourism Norway and the UNEP in Oslo, Norway,

it was agreed that "Climate change has increasingly become a major threat affecting the very resources on which ecotourism depends - natural areas and local and Indigenous communities around the world....Stronger leadership and strategies are needed in order to substantially decrease ecotourism's carbon footprint generated from multiple sources including facility operations and transport-related greenhouse gas emissions."

This article will offer some explanations as to why travel and tourism leaders are now feverishly working at the climate change front. Firstly, the economic costs of climate change for the industry will rise inexorably if it takes a business-as-usual attitude. Secondly, tourism relies more than other industries on a good image, but its reputation as a beneficial and environmentally acceptable activity has rapidly faded during recent debates on the causes of global warming.

### **Economic factors**

Critics have always pointed out the fickle nature of tourism, and indeed the industry's special vulnerability to bad news and events has been proven many times in recent years; just consider the slumps following terrorist attacks such as 9/11 and the Bali bombings, the threat of diseases such as SARS and avian flu or environmental crises. The Indian Ocean tsunami in 2004 and Hurricane Katrina that hit New Orleans in 2005, caused immeasurable costs for the travel and tourism industry. What needs to be calculated here are not only the costs of lost property and for the reconstruction of tourist infrastructure in case of disasters, but also the costs of tourists staying away from crisis-hit destinations for a long time as well as the high expenditures for promotional campaigns to get tourists visiting again.

To enable the tourism sector to respond promptly and effectively in cases of emergency, the UNWTO and international business associations such as the Pacific Asia Travel Association (PATA) have already made major investments to establish crisis centres and risk management task forces. Further efforts are underway to develop climate change policies for the tourism sector that offer adaptation and mitigation measures aimed to prevent or reduce high expenditures in tourist areas affected by climate-change-related problems.

How urgent it is to take action is shown by the case of Fiji. Like uncountable other small islands around the world, Fiji's islands are highly vulnerable to climate change, and the tourism industry is already suffering from the impacts in the form of cyclones,

storm surge and flooding, sea level rise, erosion, transport and communication interruption, and reduced water availability. These are the findings of a research by Susanne Becken, published by the University of the South Pacific in August 2004. The "climate-change-related hazards have the potential to destroy existing tourism capital and severely undermine efforts to attract new investment from within Fiji and overseas. Increasing insurance premiums aggravate the risk." (Becken 2004).

Aviation, cruise ship industry major climate change culprits

The aviation industry in particular is now facing enormous pressure since the Intergovernmental Panel on Climate Change (IPCC) and environmental campaign groups have singled out the responsibility of air travel in accounting for a considerable portion of global greenhouse gas emissions. Globally, the world's 16,000 commercial jet planes generate more than 600 million tones of CO<sub>2</sub> per year, almost as much as from all human activities in Africa each year, according to Friends of the Earth.

The huge increase in aircraft pollution is largely due to the rapid growth of tourism and related air traffic. A WWF briefing paper on 'Tourism & Climate Change' (2001) states that the actual tonnage of CO<sub>2</sub> emitted will increase by over 75 per cent by 2015; concomitantly, from almost 700 million international travellers in 2000, numbers are expected to jump over one billion by 2010 and 1.6 billion by 2020. "As a consequence, the role of air travel within the tourism industry is likely to expand, cause considerable environmental damage, and to have knock-on effects on the tourism industry itself," concludes WWF.

Given the recent negative publicity, tourists in Western countries are changing their behaviour and tend to fly less. There are now even voices in Europe that go so far to suggest that flying away on holiday is immoral and should be stopped altogether.

"Warming stops global roaming", wrote the Australian newspaper Daily Telegraph recently. A survey in Australia done by a holiday website found nearly 20 per cent of respondents considered giving up air travel as it causes irreparable harm to the environment, while only 16 per cent said they do not care about climate change and it would not affect their travel choices at all. Similarly, a study prepared for Greenpeace in the UK showed a clear shift in consumers' perception: 61 per cent of the respondents were of the opinion that "We should limit our air travel voluntarily", 33 per cent agreed that "Air travel is now too cheap", 52 per cent agreed that "There should

be a tax on fuel for air travel", and 61 per cent of the respondents supported the idea that "There should be a pollution warning on air tickets".

Apart from aviation, the worldwide booming cruise ship industry has also come under fire. Cruise ships that can carry up to 5,000 tourists are not only notorious for creating tremendous amounts of waste and sewage but also belong to the biggest contributors to greenhouse gas emissions within the travel and tourism industry. The US-Bluewater Network that campaigns against the pollution of the world's oceans by ships has found that in one port visit, a single cruise ship can generate the emissions of more than 12,400 cars. The ship smokestacks release toxic emissions that lead to acid rain, global climate change, and damaging health effects to communities situated near ports. Despite the fact that ocean cruise liners are more energy efficient than other forms of commercial transportation, marine engines operate on extremely dirty fuels, known as 'bunker oil'. To compound the problem, engines on these ocean-going ships are currently not required to meet the same strict air pollution controls as cars and trucks are required to do.

Global travel and tourism could only grow by leaps and bounds because the transport networks that enable the movement of people and goods around the world are heavily subsidized. Tourists can enjoy to travel the world at incredibly low prices. As the New Economic Foundation study 'Up in Smoke?' explains "...much international trade lives in a bubble. International aviation and marine fuels are immune from any kind of taxation that would indicate and internalize the real environmental cost of freight and shipping. Greenhouse gas emissions from international freight are also exempt from the emissions targets set for rich countries to meet under the Kyoto Protocol of the UN Climate Change Convention."

Growing consumer awareness on these issues and a burgeoning citizens movement calling for fuel taxes and stricter regulation of the transport industry can severely curb future tourism growth targets and, thus, cut deep into the profits of plane-makers, airlines, travel agencies, cruise ship-operators and other tourism-related businesses. No wonder then that companies are now scrambling to talk about hard-earned environmental advances and new initiatives to protect the environment.

At the Paris Air Show in June, for example, Airbus' top salesman John Leah, told a press conference that Airbus is "saving the planet, one A380 at a time". The company's promotional brochures

featured a silhouette of the new two-deck super-jumbo - dubbed the "gentle green giant" - set against images of dolphins, rain forests and fishing boats on a misty pond. Boeing representatives were also keen to display ecological bona fides and claimed the industry has reduced fuel consumption by 70 per cent since the jet age began, reported Dow Jones Newswires.

### **Image is all**

While the global travel and tourism lobby has adopted the rhetoric of corporate social and environmental responsibility, reality checks on the ground show that tourism's environmental performance has remained very poor. Neither the UN-initiated International Year of Ecotourism 2002 or multilateral environment agreements such as the Tourism Guidelines under the Convention of Biological Diversity (CBD), have achieved anything to stop tourism from pervading pristine coastal areas, islands, forests and mountainous areas.

On the contrary, more fragile ecosystems and biodiversity are destroyed, local communities displaced and traditional livelihoods destroyed - all for the establishment of huge exclusive resorts, golf courses and marinas. These massive tourism complexes are also notorious for high per capita consumption of energy and water. But however damaging and wasteful these projects may be, with the right PR efforts, they can still pass as 'ecotourism' developments and even raise their profile thanks to eco-accreditation schemes, or environmental Best Practices awards.

As long as no proper legally binding frameworks are in place to check and redress excessive and damaging tourism activities, 'green-washing' continues and climate change culprits are likely to get away scot-free.

Ecotourism promoters' intention to help minimize tourism's carbon footprint is laudable. The GEC07 Oslo Statement, for example, outlines an action plan that aims at "encouraging adapted travel patterns (e.g. increase length of stay per trip); promoting more energy-efficient, alternative or non-motorized transport options; utilizing reduced and zero-emission operation technologies; and increasing participation in reliable high-quality carbon offsetting schemes."

But many of the new initiatives that promote 'zero-carbon' or 'carbon-neutral' tourism businesses need critical examination because they may just be marketing gimmicks. For instance, The Guardian (UK) announced in January that Per Aquum, the brand behind some of the world's most luxurious

resorts, was the owner of the first 'zero-carbon' five-star beach resort designed by architects in London. The developers of the resort, due to open in 2008, claim the project will have no negative environmental impact and will be totally self-sufficient, using only energy from the sun and wind and producing little waste or carbon emissions. "The only drawback, environmentally speaking, is its location - thousands of fuel-guzzling miles away [from London] in Nungwi, Zanzibar," cautioned The Guardian.

Six Senses Resorts and Spas, a Bangkok-based luxury hotel chain with properties in Thailand, Vietnam and the Maldives is now specialized in 'carbon-cutting getaways' for millionaires who do not want their "vacation dampened by global warming guilt". Apart from introducing energy-saving innovations at the luxurious island resorts, all visitors are required to pay a tax for their flight, which goes into a carbon offset fund. The project owners say the fund will be spent on renewable energy projects for villages in Sri Lanka and India, thus, offsetting among the poor the carbon emissions caused by jets transporting the rich to their holiday destination. Yet, can Six Senses really be called an environmentally friendly company considering that it consumes exorbitant amounts of water to run their spa facilities, for example?

### **Controversial carbon offsetting and trading schemes**

A growing number of airlines have included carbon offsetting into the price of tickets. However, there are increasing reports about shady 'think green - see cash' carbon trading businesses that are trying to take advantage of well-intentioned air travellers. When Lufthansa earlier this year was looking for a partner to offer a carbon offsetting scheme to customers, half of the 13 studied companies were considered unreliable.

Last year, the activists Timothy Byakola and Chris Lang exposed a Dutch company called GreenSeat which promised to invest airline passengers' carbon offset contributions in climate friendly projects in poor countries. For the paltry sum of US\$28, one would be able to cover the costs of planting 66 trees to 'compensate' for the CO2 emissions of a return flight from Frankfurt to Kampala. But looking closer at one of these projects, in Mount Elgon National Park in Uganda, the activists found that local people were harassed and even driven from their land to pave the way for the tree plantations. GreenSeat has since stopped selling carbon credits from Mount Elgon - because of the

problems there. Earlier this year, farmers cut down half-a-million of the project's trees and planted crops and fruit trees on the land.

Carbon trading that enables companies and consumers to buy themselves out of responsibility are highly controversial. It "dispossesses ordinary people in the South of their lands and futures without resulting in appreciable progress toward alternative energy systems," argues Larry Lohmann of the UK-based The Corner House, who has co-edited the book 'Carbon Trading: A Critical Conversation on Climate Change, Privatization and Power'. "Tradable rights to pollute are handed out to Northern industry, allowing them to continue to profit from business as usual. At the same time, Northern polluters are encouraged to invest in supposedly carbon-saving projects in the South, very few of which are actually helping to halt dependence on fossil fuels."

### **Linking climate change and 'pro-poor' tourism**

If the goal is to effectively decrease greenhouse gas emissions in the travel and tourism sector, there seems to be no way around curbing the growth of the industry. It thus would make sense if governments rethink tourism as a development solution and offer alternatives to tourism in order to at least reduce the over-dependency on this industry in developing countries. But whenever such proposals come up, the tourism world is quick to argue that tourism is a top industry in the battle against world poverty.

The UNWTO has declared the global tourism sector offers solutions to the "twin challenges of Climate Change and Poverty" in response to UN Secretary General Ban Ki-moon's call for action on Climate to be taken in close coordination with global action on Poverty Alleviation & the Millennium Development Goals. A major aspect of UNWTO's submission to the Bali Climate Summit in December 2007 will be to demonstrate that the agency "is committed to ensuring that this coherence is applied to the tourism sector generally and particularly in regard to the world's poorest countries, for whom tourism is a driver of jobs, livelihoods, exports and competitiveness".

The focus on tourism as a viable foreign exchange earner for poor countries has always been rebuffed by critical analysts due to tourism's high leakages, for example. But tourism's benefits become an even more questionable affair in today's carbon-constrained world as Becken convincingly illustrates in her case study on Fiji tourism. She concludes that "eco-efficiency of tourism is possibly low when the total of greenhouse gas emissions are weighted

against the economic benefits for Fiji, especially when about 60 per cent of tourism foreign exchange leak out of Fiji."

The argument of tourism as a poverty alleviation strategy is even more doubtful in view of the increasing foreign take-overs of tourism businesses as a result of globalization and liberalization. To stay with the case of Fiji, investment statistics show that 94 per cent of the 132 tourism projects put into operation between 1988 and 2000 were foreign owned. That means less tourism revenue trickles down to the local economy, but Fiji residents, including those who do not participate in the tourist trade at all, have to bear the high costs of tourism's energy use, greenhouse gas emissions and other environmental impacts. According to Becken, tourism within Fiji contributes at least 7.4 per cent to national energy use and CO<sup>2</sup> emissions, and if international air travel to and from Fiji is included, tourism makes up almost 30 per cent of national totals! Hence, tourism must be considered a burden to the poor, not a panacea!

#### **What's next?**

We can certainly expect more heated debates on climate change and tourism in the coming months. Of special interest will be the outcome of the UNWTO's 2nd International Conference on Climate Change and Tourism to be held in Davos, Switzerland, from 1-3 October 2007. It aims to continue and deepen the discussions that started in Djerba 2003 with a focus on adaptation and mitigation needs and policy options. The results of the Davos conference will then be submitted to the Tourism Ministerial Summit on Climate Change, to be held in London, United Kingdom, on 13 November 2007, and to the UNWTO General Assembly in Cartagena de Indias, Colombia, 23-29 November 2007. After that the UNWTO is intent to show its presence at the Bali Climate Summit in December.

Also important to mention is the Pacific Asia Travel Association (PATA) initiative to mobilize influential travel and tourism industry leaders to sign on to a cross-sector industry response to climate change. In this context, it is preparing for a major event 'CEO Challenge 2008: Confronting Climate Change' to be held in Bangkok on 29-30 April 2008. The ambitious goal for the 'CEO Challenge' is to create a single platform and action plan, fully engaging tourism ministers and heads of tourist boards, CEOs of airlines and airports, CEOs of leading international hotel groups, major tour operators and other key industry stakeholders.

Also in April next year, the aviation industry will

convene its third Aviation and Environment Summit in Geneva.

It is urgent that civic movements concerned with climate change issues monitor and respond to these ongoing activities because travel and tourism is one of the world's most omnipotent industries, not only because of its size and growth but also as a driver of globalization and trade liberalization. Existing campaign networks such as Third World Network or the UK Working Group on Climate Change and Development that includes the New Economics Foundation (nef), Friends of the Earth (FoE), Greenpeace, Oxfam and WWF, should pay more attention to the problems of tourism-related climate change issues in their action plans and help lobby industry, governments, and intergovernmental agencies to take more decisive steps to curb relentless tourism expansion that exacerbates the climate change crisis.

More cooperative efforts to combat the negative impacts of climate change should be made by the academic community, development aid agencies and NGOs that are specifically concerned with tourism development. The Indian NGO Equations (Equitable Tourism Options) made a good start when it released a 'Call for Action on Climate Change, Biodiversity and Tourism' on occasion of the International Biodiversity Day on 22 May 2007'. Among other things, it called on the tourism industry to come up with an authentic response to climate change. "We recognize that [effective measures] may require a significant transformation of current forms of mass tourism and we urge a serious engagement on this issue to reduce tourism's climate change footprint," says the statement. Furthermore, Equations demands "climate justice" by phasing out unsustainable growth strategies. It states, "The responsibility of seeking viable and sustainable solutions to avert the climate crisis must take into account particularly the plight of the most vulnerable communities around the world."

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