Acknowledgements

From Davos to Copenhagen and beyond: advancing tourism's response to climate change
UNWTO Background Paper

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Executive Summary

Tourism and travel is a vital contributor to the global economy and especially important for many developing countries. Tourism is an effective way of redistributing wealth and a catalyst for gender equality, cultural preservation and nature conservation. As a result, the sector is also contributing to the UN Millennium Development Goals.

Climate change is one of the most serious threats to society, the economy and the environment and has been an issue of international concern for decades. The Inter-Governmental Panel on Climate Change (IPCC) has reported that warming of the global climate system is "unequivocal" and that it is "very likely" that anthropogenic (human-made) greenhouse gases (GHG) have caused most of the observed global temperature rise since the middle of the 20th Century. Ambitious emissions reduction targets for developed countries and an effective framework that addresses the needs of developing countries are required.

As climate defines the length and quality of tourism seasons, affects tourism operations, and influences environmental conditions that both attract and deter visitors, the sector is considered to be highly-climate sensitive. The effects of a changing climate will have considerable impacts on tourism and travel businesses. In some parts of the world, these impacts are increasingly becoming evident. The Caribbean, Small Island Developing States, Southeast Asia and Africa are the tourism regions thought to be most at risk. Climate change adaptation, by the travel and tourism sector, will ensure that individuals, communities and nations continue to receive the benefits of tourism.

Tourism and travel is also a vector of climate change, accounting for approximately five per cent of global carbon dioxide emissions. By 2035, under a "business as usual" scenario, carbon dioxide emissions from global tourism are projected to increase by 130 per cent. Most of the increase is attributed to air travel but the tourism sector has pledged to substantially reduce emissions.

As tourism is so important to poverty reduction and economic development in developing nations, any policies aimed at mitigating and reducing greenhouse gas emissions should be formulated and implemented in a considered way in order not to disadvantage these countries. The transportation sector, so fundamental to tourism, will form a critical aspect of national and international mitigation policy negotiations. Any strong global emission policy for aviation would have considerable consequences for destinations depending on tourism and travel. UNWTO has called for preferential treatment for air services that support the development of tourism in the least developed countries.

UNWTO has been working to raise awareness on climate change issues in the tourism sector for many years and much has been done. In Tunisia in 2003, the first International Conference on Climate Change and Tourism was organised by UNWTO and several other United Nations agencies. The conference resulted in the *Djerba Declaration on Climate Change and Tourism,* which highlighted the obligation of the tourism industry to reduce their greenhouse gas emissions and recognized the two-way relationship between tourism and climate change.

A second International Conference on Climate Change and Tourism was held in Davos, Switzerland in 2007. The *Davos Declaration* included firm recommendations and a clear commitment for action to respond to the climate change challenge including the urgent adoption of a range of sustainable tourism policies. UNWTO is leading by example and has calculated the greenhouse gas emissions generated by its own operations since 2008 and intends to compensate them in order to achieve climate-neutrality.

Reducing emissions is important for the long-term, however the tourism and travel sector also needs to adapt to the impacts of climate change in the short- and medium-term. Across destinations and locations the quality, quantity and accuracy of climate projection data varies. This could limit or affect how nations, especially developing countries, adapt to climate change. The WMO, in collaboration with UNWTO, established an Expert Team on Climate and Tourism. Their role was to improve the application of information in the tourism sector. In 2007, UNWTO launched a *Climate and Tourism Information Exchange Service* to enable tourism stakeholders access to research and data. The organization has developed and disseminated technical publications addressing climate change impacts and adaptation responses. The most important of these are "*Climate Change and Tourism - Responding to Global Challenges"* in support of the Davos Declaration, and "*Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, Tools and Practices*" in coordination with the University of Oxford, the WMO, and UNEP released in 2008.

The private sector is also important in addressing the challenges climate change poses for tourism and travel. They have an important role, along with non-governmental organisations, in encouraging governments to develop and implement regulatory policies and offer economic incentives.

In June 2008, CEOs representing every industrial sector across the world, submitted a set of recommendations to the G8 leaders for inclusion within a post-Kyoto climate framework. In March 2009, a World Economic Forum Task Force on Low-Carbon Prosperity was launched partly in response to the recommendations from the CEOs and also to consider how they should be implemented. An ambitious vision for tackling greenhouse gas emissions, including a commitment to cut by half carbon emission levels of 2005 by 2035, was proposed by the World Travel and Tourism Council (WTTC) in 2009. To achieve this, WTTC recognised that partnerships can play an important role.

The issue of climate change is now firmly entrenched in the global agenda and critical negotiations for a greenhouse gas emissions framework continue. The tourism and travel sector must address the climate change issue and UNWTO has embraced the challenge of responding by establishing collaborative partnerships, raising awareness, developing guidance and providing support. The time is right for all those involved to forge ahead. Any further delay in action will result in consequences for the tourism industry and the people who depend upon the sector.

1. Introduction

1.1. Tourism and Climate Change

Tourism and travel is one of the largest global economic sectors and is a significant contributor to many national and local economies around the world. In 2008, there were 922 million international tourist arrivals with tourism receipts of US$944 billion[i]. It is estimated that the global travel and tourism industry contributed 9.6 per cent of global Gross Domestic Product (GDP) and 7.9 per cent of worldwide employment in 2008[ii]. However, tourism demand has slowed substantially over the last year as a result of the global economic crisis. International tourism and travel is a vital contributor to the economy of many developing countries. Between 1995 and 2007, tourism and travel in emerging and developing markets grew at twice the rate of industrialized countries[iii]. Tourism and travel is a primary source of foreign exchange earnings in 46 out of 50 of the world's LDCs[iv]. With international tourist arrivals projected to reach 1.6 billion by 2020[v], tourism will continue to have an important role in contributing to the UN Millennium Development Goals, particularly the alleviation of poverty in developing countries.

Climate change is thought to be one of the most serious threats to society, the economy and the environment (Box 1).

Box 1: Climate change and the Inter-Governmental Panel on Climate Change (IPCC)

In 2007, the Inter-Governmental Panel on Climate Change (IPCC) reported that warming of the global climate system is "unequivocal" and that it is "very likely" that anthropogenic (human-made) greenhouse gases (GHG) have caused most of the observed global temperature rise since the middle of the 20th Century[vi]. The IPCC also emphasized that human-induced climate change has only just begun and that the pace of climate change is "*very likely*" to accelerate. Depending on future GHG emission trajectories, the IPCC predicts that global average surface temperatures will increase between $1.8^{o}C – 4.0^{o}C$ by 2100[vii].

The environmental and economic risks of the magnitude of climate change projected for the 21st century are considerable and have featured prominently in recent international policy debates[viii]. The IPCC[ix] concluded, with very high confidence, that climate change would impede the ability of many developing nations to make progress on sustainable development by mid-century and become a security risk that would steadily intensify, particularly under greater warming scenarios. The Stern Review similarly concluded that the costs of taking action to reduce GHG emissions now would be much smaller than the costs of economic and social disruption resulting from inaction on climate change. While additional warming cannot be avoided, future temperature increases will heavily depend on global emission pathways over the next four decades. At the 15th Conference of the Parties in Copenhagen, the international community will attempt to negotiate a new climate change agreement that would ensure that global temperature increase does not exceed 2°C, a level of warming considered by many scientists and over 100 nations[x], including the G8, to represent "dangerous interference with the climate system" as outlined in the United Nations Framework Convention on Climate Change (UNFCCC)[xi].

With its close relationship to the environment and climate, tourism and travel is considered to be a highly climate-sensitive economic sector[xii]. Tourism destinations and tourism operators are affected by climate variability in a number of ways (Box 2).

Box 2: The effect of climate variability on tourism destinations and operators

Climate defines the **length and quality of tourism seasons** (e.g. winter sports) in different regions. Some tourism destinations are climate-dependent; since climate is the principal resource upon which the tourism industry is based (e.g. many tropical small island developing states).

Climate directly **affects various facets of tourism operations** (e.g. water supply and quality, heating-cooling costs, snowmaking requirements, irrigation needs, pest management, evacuations and temporary closures) that affect profitability.

Moreover, a wide range of the **environmental resources** that are critical attractions for tourism in many destinations are sensitive to climate variability, such as wildlife and biodiversity, water levels and quality, and snow conditions and glacier extent.

Climate also influences **environmental conditions** that can deter tourists, including infectious diseases, wildfires, algal blooms, insect or water-borne pests (e.g. jellyfish), and extreme events such as hurricanes, floods or heat waves.

Climate is also a crucial **determinant of tourist decision-making**. Seasonal climate fluctuations at tourism destinations and at major outbound markets are key drivers of tourism demand at global and regional scales. Weather is an intrinsic component of the travel experience and also influences tourist spending and holiday satisfaction.

As a consequence, the integrated effects of climate change are anticipated to have far-reaching impacts on tourism and travel businesses and destinations. Indeed, climate change is not some distant, future threat to tourism and travel, as the varied impacts of climate change are increasingly becoming evident in various destinations around the world and affecting the tourism and travel industry and the communities who depend upon it. Climate change is also already altering the decisions of travellers in terms of the destinations they choose and the timing of their trips. Climate change will result in both negative and positive impacts for the tourism and travel sector and its impacts will vary substantially by geographic region and sector[xiii]. There are four broad pathways by which climate change will affect the global tourism and travel sector[xiv]:

a.) **Direct climate impacts:** Changes in the length and quality of climate-dependent tourism seasons (i.e. sun-and-sea or winter sports holidays) could have considerable implications for competitive relationships between destinations and intra-regional tourism flows. Other impacts will include increased infrastructure damage, additional emergency preparedness requirements, higher operating expenses (e.g. insurance, backup water and power systems, and evacuations), and business interruptions. Similarly, key cultural heritage assets that are also important attractions for tourists are also increasingly threatened by extreme climatic events and projected climate change.

b.) **Indirect environmental change impacts:** Tourism is often based on a high quality natural environment. Changes in water availability, biodiversity loss, reduced landscape aesthetic, altered agricultural production (e.g. wine tourism), increased natural hazards, coastal erosion and inundation, damage to infrastructure and the increasing incidence of vector-borne diseases will all impact tourism to varying degrees. In contrast to the varied impacts of a changed climate on tourism, the indirect effects of climate induced environmental change are likely to be largely negative. Mountain, island, and coastal destinations are considered particularly sensitive to climate-induced environmental change, as are nature-based tourism

market segments[xv]. Visitors may be deterred from visiting if the quality of the attractions decreases markedly.

c.) **Impacts of mitigation policies on tourism mobility:** As will be discussed in more detail later, national or international policies to reduce GHG emissions will potentially impact tourism flows by causing an increase in transport costs and fostering environmental attitudes that lead tourists to change their travel patterns (e.g. shift transport mode or destination choices)[xvi].

d.) **Indirect societal change impacts:** The impacts of, and adapting to, climate change will have an economic cost. If not tackled, climate change may also threaten future economic growth and even the political stability of some nations[xvii]. Any reduction of global GDP due to climate change would have negative implications for anticipated future growth in tourism. Tourists are averse to political instability and social unrest, and there would be negative repercussions for tourism in the climate change security hotspots.

The tourism and travel sector is characterized by considerable diversity and consequently, there are extensive differences in the nature of climate sensitivities and adaptive capacities of tourism and travel operators and destinations. Furthermore, the implications of climate change for any tourism business or destination will also partially depend on the impacts on its competitors, with a negative impact in one part of the tourism system constituting an opportunity elsewhere. Assessments by different groups of international experts[xviii] have consistently identified developing nations in the Caribbean, Small Island Developing States (SIDS), Southeast Asia, and Africa as the most at-risk tourism destinations, because of their high exposure to multiple climate change impacts that will affect key tourism products, distance to major markets (long-haul travel greater than five hours) and consequent exposure to increasingly stringent emissions policy on aviation, lower overall adaptive capacity, limited domestic markets and a high economic dependency on international tourism and travel.

Regardless of their relative vulnerability to climate change, all tourism and travel businesses and destinations will need to adapt to climate change in order to minimize associated risks or capitalize upon new opportunities, in an economically, socially and environmentally sustainable manner[xix]. Considering that the large information requirements, policy changes and investments required for effective adaptation by tourism and travel destinations will require decades to implement in some cases, the process of adaptation must commence now for destinations anticipated to be among those impacted by mid- century[xx].

With their high capacity to adapt to the effects of climate change by substituting the place, timing and type of holidays in their travel decision-making, tourists will play a pivotal role in the eventual impacts of climate change on the tourism and travel industry and destinations. Tourists are also increasingly willing to pay a premium for sustainability or environmentally-friendly practices and operators are responding with new products and services[xxi].

Tourism and travel also contributes to climate change through the emission of GHG. Tourism and travel accounts for approximately five per cent of global carbon dioxide emissions[xxii]. The transport of tourists to and within destinations accounts for 75 per cent of all carbon dioxide emissions by the tourism sector, with air travel making up about 40 per cent of the total[xxiii]. It has also been predicted that, under a "business as usual" scenario, carbon dioxide emissions from the global tourism sector will increase by 130 per cent by 2035[xxiv]. Most of this growth was attributed to air travel. This projected growth in emissions from tourism is inconsistent with the deep emission reductions needed to address climate change; the pledge of the tourism sector to substantially reduce emissions in the decades ahead is discussed below.

1.2. The United Nations and climate change

A crucial interdependence exists between the climate, the environment, tourism and communities[xxv]. In the year 2000, world leaders gathered in New York to adopt the United Nations Millennium Declaration which committed them to a series of time-bound targets with a deadline of 2015. These development objectives, with an overall focus on reducing extreme poverty, became known as the Millennium Development Goals (MDGs).

The world's poorest people are the most vulnerable to the impacts of climate change such as floods, water shortages and changes in biodiversity. Countries that are perhaps least prepared to deal with the effects are already suffering the more serious impacts of climate change. However, tourism is one of the best known ways of redistributing wealth from rich nations to poor nations and from urban areas to rural areas. It is also an effective catalyst for gender equality, cultural preservation and nature conservation.

As a result of the economic and social benefits of tourism, the sector is increasingly being promoted as contributing to, and being a vital element in, the alleviation of poverty in Least Developed Countries as one of the UN Millennium Development Goals. In addition, tourism and travel also contributes to the environmental sustainability and gender equality goals. As a result, in 2002, UNWTO launched a programme on Sustainable Tourism - Eliminating Poverty (ST-EP). UNWTO have also adopted the strapline: "committed to tourism, travel and the Millennium Development Goals".

The issue of climate change has been of international concern for several decades. In 1992, the United Nations Framework Convention on Climate Change (UNFCCC) was adopted as the basis for a global response to the issue (Box 3).

Box 3: Kyoto Protocol and carbon dioxide emission reductions

The first phase of the Kyoto Protocol expires in 2012. The IPCC suggests that if carbon dioxide emissions decline by 50 to 85 per cent of 2000 emissions by 2050, global warming by the end of the century is likely to remain between 2.0-2.4°C. International business organizations such as the World Economic Forum[xxvi] and the Copenhagen Climate Council[xxvii] have endorsed the IPCC's recommendation. The leaders of the G8[xxviii] also endorsed an emission reduction target of -50% by 2050, but could not agree on a baseline of 1990 or 2005.

The global climate policy negotiations continue to provide clarity on some fundamentally important issues such as ambitious emission reduction targets for developed countries and an effective institutional framework with governance structures that address the needs of developing countries[xxix]. It is hoped that the discussions will result in an ambitious, but fair, climate change deal. Governments from around the world will be seeking agreement on a long-term goal for greenhouse gas emissions reduction; action on the mitigation of climate change; adaptation to the effects of climate change; technology development and transfer to support mitigation and adaptation; and providing financial resources and investment to support mitigation and adaptation (especially in the Least Developed Countries).

The United Nations Environment Programme (UNEP) has launched a *Green Economy Initiative* which aims to revive the global economy and boost employment, whilst simultaneously accelerating the fight against climate change, environmental degradation and poverty. Within the Green Economy Initiative report, UNWTO and UNEP will jointly produce a chapter and a series of background papers

devoted to how investment in sustainable tourism and travel solutions can contribute to sustainable development and to a green economy.

2. Agreements on Greenhouse Gas (GHG) emissions reductions and their impact on tourism

Action to reduce current levels of greenhouse emissions will not only minimise the threat of climate change but will also provide an opportunity to develop a sustainable global economy. Any mitigation policies should be developed and implemented in a considered way so as not to negatively disadvantage the least developed countries and the tourism industry contributing to poverty reduction and economic development. The tourism and travel community must be fully engaged in, and supportive of this process. There are also a number of mechanisms that could be used for addressing greenhouse gas emissions including:

- **Reducing energy use**. This should be the starting point and is the most essential aspect of mitigation. It could be achieved through a shift in transport use or changing management practices.
- **Improving energy efficiency**. Technological developments will help reduce emissions from, for example, aviation as it may reduce fuel use and improve aircraft performance.
- **Increasing the use of renewable energy**. This is an area that, with the right investment, could be very applicable to tourism especially solar panels, water recycling or passive heating-cooling.
- **Sequestering carbon** through sinks (often forestry schemes) and the use of carbon compensation or offsetting (Box 4). These schemes are currently voluntary and UNEP has suggested that are unlikely to have a major impact on the reduction of aviation greenhouse gas emissions[xxx].

Box 4: Carbon Offsetting

There is a growing number of not-for profit organisations that offer travellers the opportunity to compensate, through additional payment, for the emissions produced as a result of flights undertaken. Flight calculators are used to make assessment of emissions generated by a flight between two airports. The money is then re-invested in a renewable energy projects all located in developing countries[xxxi].

As many of the schemes are voluntary, there is confusion among tourists about the various approaches[xxxii]. The UNFCCC has introduced a Gold Standard Certified Emission Reductions to ensure that the projects certified do at least have sustainable development benefits.

Addressing GHG emissions from the transportation sector is a critical aspect of national and international mitigation policy negotiations[xxxiii]. Consequently, it is anticipated that climate change mitigation policy will have both near-term and long-term implications for the costs of transportation that are fundamental to tourism (automobile, air travel, and cruise ships in particular)[xxxiv]. International aviation is critical to tourism with 52 per cent of travellers reaching their destination by air[xxxv]. As indicated, it is also the dominant contributor to GHG emissions from travel and tourism (40 per cent of the industry's carbon dioxide emissions)[xxxvi]. Currently international aviation emissions are excluded from the Kyoto targets. Nonetheless, Article 2, paragraph 2 of the Protocol does say that Annex 1 Parties[xxxvii] (industrialised countries) are committed to pursue limitation or reduction of GHG emissions. So whilst there may not be specific, measurable targets, there is already a requirement for

industrialised nations to implement measures to reduce emissions. Within Europe, the Emissions Trading Scheme (ETS), which has been operational since 2005, will begin to include air carrier operations to, from and within Europe in 2012.

A number of studies have examined the potential impact of a range of aviation sector-targeted climate policies on the future of international tourism. There is no evidence to suggest that climate policies or international aviation industry initiatives, as currently proposed, would have any substantial impact on the growth of tourist arrivals through 2020[xxxviii]. Even with, for example, ticket price increases, many people will still want or need to travel and as tourism is such an important economic sector, especially for developing countries, operators will try to encourage tourism even with industry climate policies.

There has been considerable dialogue on future policy frameworks to manage emission reductions in the transportation sector.[xxxix] The role the International Civil Aviation Organisation (ICAO) has in providing leadership on reducing greenhouse gas emissions within the aviation sector resulted in the formation of the Group on International Aviation and Climate Change (GIACC)[xl]. The treatment of greenhouse gas emissions from international aviation is one of the most contentious issues within the UNFCCC process. The GIACC have adopted the aspirational goal of annual improvements in fuel efficiency of 2 per cent up to the year 2050 and also developed a Programme of Action that includes strategies to achieve reductions in emissions.

In February 2009, the ICAO organised an international Workshop on Aviation and Alternative Fuels. There was general agreement that alternative fuels can be a win-win solution for reducing aviation's dependence on fossil fuels and a key element to help reduce the impact on climate change. It was also suggested that the adoption of alternative fuels by the aviation industry may be simpler than in other sectors due to the relatively small number of fuelling locations. Various blends of alternative fuels have been tested and progress is being made in development.

The International Road Transport Union (IRU) represents the passenger and goods road transport industry. In November 2009, the IRU adopted the "30-by-30" resolution, which includes a voluntary commitment by the road transport industry to reduce its CO_2 emissions by 30 per cent by 2030 (with a base year of 2007)[xli]. The IRU is also promoting the change from dependence on fossil fuels to also using alternative energy and fuel sources.

Whilst not a big contributor to tourism directly, the international shipping industry is responsible for transporting about 90 per cent of world trade[xlii]. For over 50 years, the UN International Maritime Organisation (IMO) has provided the global regulatory framework within which the shipping industry operates. Whilst it is already the most carbon efficient mode of commercial transport, the sector is committed to reduce their GHG emissions. However, shipping companies can choose the 'flag state' in which to register their vessels and emissions cannot be attributed to any particular national economy[xliii]. As a result, multilateral cooperation is required.

> **Box 5: Funding for adaptation**
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> A number of proposals also focus on funding for adaptation. Many less developed countries which rely on international tourism as a significant contributor to their economy have voiced concern over the potential of future aviation emission policy to negatively affect their tourism industry. The Group of Least Developed Countries proposed the International Air Passenger Adaptation Levy (IAPAL) within the Bali Action Plan in 2008, which would generate an estimated US$ 8 billion per year for the Adaptation Fund within the UNFCCC. The Aviation Global Deal Group[xliv] have a similar proposal that the aviation sector would meet the requirement of 'common but differentiated responsibilities' in the UNFCCC by using the revenues generated through the auctioning of emission allowances in the global aviation sector (estimated to be in the order of US$ 1.5 to 5.0 billion per year) for climate change initiatives in developing countries. If either proposal were implemented, then the tourism sector would become the world's largest funder of climate change adaptation in developing countries.

Clearly, any global emission policy for aviation and other transport sectors would have considerable consequences for destinations depending on tourism and travel, including, for instance, many small island developing states. Tourism and travel -related mitigation initiatives must mediate between the conflicting objectives of the need to reduce contribution to global warming whilst not adversely impacting tourism's role in sustainable development and poverty alleviation[xlv]. UNWTO has called for preferential treatment for air services that support the development of tourism in the least developed countries[xlvi].

All countries and those within the tourism industry should be encouraged, regardless of economic status, to work with the COP 15 process to ensure that poverty and promoting the development of tourism-dependent poorer nations are also considered. In 2007, UNWTO suggested it would be possible to reduce greenhouse gas emissions from air transport without affecting the socio-economic benefits tourism provides[xlvii]. This is also dependent to some extent on behaviour change with tourists being encouraged to reduce the number of shorter trips they take. However, constraints on leisure time within Europe are actually leading people to go on more, but shorter visits[xlviii]. Developing alternative modes of short haul transport is one approach that could be implemented without reducing the number of visitors.

3. UNWTO responses to climate change

The Secretary General of the United Nations has been tasked with developing a global response to the challenge of climate change, coherent with the Millennium Development Goals. As a result, the United Nations has, for many years, been developing a framework designed to establish a long-term post-Kyoto roadmap, which includes targeted milestones. The tourism and travel sector, given its hugely important economic and social value, its role in sustainable development and its relationship with climate, has a significant role to play in the UN's overall framework. UNWTO has been studying the issue for many years as part of its contribution to sustainable development and the Millennium Development Goals. UNWTO is actively working to raise awareness on climate change issues in the tourism sector and on integrating tourism into the United Nations and other international policy processes on climate change.

UNWTO recognises that the tourism and travel sector needs to adapt to the changing climate and to changes that will continue for the foreseeable future to ensure individuals, communities and nations continue to receive the benefits of tourism including sustainable development in the least developed countries (Box 6). However, UNWTO is also fully aware that tourism needs to reach some consensus on measures to be adopted with regards to mitigating greenhouse gas emissions and other environmental impacts.

Box 6: First International Conference on Climate Change and Tourism, 2003

In April 2003, UNWTO, together with several other United Nations agencies, convened the first International Conference on Climate Change and Tourism in Tunisia. The resulting *Djerba Declaration on Climate Change and Tourism*[xlix] signified the importance of climate change for the sustainability of the global tourism industry, urged the formulation of appropriate adaptation plans, recognized the two-way relationship between tourism and climate change, and highlighted the obligation of the tourism industry (including transport companies, hoteliers, tour operators, travel agents and tourist guides, and consumers) to reduce their GHG emissions and subscribe to all relevant intergovernmental and multilateral agreements to mitigate climate change. The conference was pivotal in highlighting the issue of climate change within the tourism and travel sector and sought to raise awareness and strengthen collaboration between public and private sector players.

Since that first conference, the complex relationship between the tourism and travel sector and climate change has increasingly been studied. As a result, in 2007, UNWTO, together with the United Nations Environment Programme (UNEP) and the World Meteorological Organisation (WMO) with the support of the World Economic Forum, organised the Second International Conference on Climate Change and Tourism in Davos, Switzerland. The multi-stakeholder event attracted more than 400 participants from over 80 countries, representing the public and private sector, academia and civil society. Stakeholders and interested parties were reunited to review developments and incorporate increasing global awareness and market place reality into revised guidance.

The outcome of the conference was the Davos Declaration (Annex I). The Declaration not only acknowledged the reality of climate change and the interrelationship with tourism and travel but also that a long-term strategy is required to reduce greenhouse gas emissions from within the sector. The Declaration outlines firm recommendations and a clear commitment for action, by the key interest groups involved in tourism, to respond to the climate change challenge. It called for the urgent adoption of a range of sustainable tourism policies and also provides global guidance on the issue. The goals included within the Declaration are not only achievable but provide a link to the interrelated poverty agenda. Four key areas that will require action were agreed upon:
- Mitigate greenhouse gas emissions from the tourism sector (especially from transport and accommodation activities)
- Adapt tourism businesses and destinations to changing climate conditions
- Apply existing and new technologies to improve energy efficiency
- Secure financial resources to assist poorer regions and countries.

> **Box 7: UNWTO events following Davos**
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> Following Davos, UNWTO, in partnership with the World Travel Market (WTM), held a one day Ministers' Summit in London where Ministers were given the opportunity to discuss and endorse the Davos Declaration. The participants at the summit urged all tourism and travel stakeholders to follow the recommendations of the Davos Declaration which was also discussed and endorsed at the UNWTO General Assembly held in Cartagena de Indias, Colombia in November 2007.
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> Each year, UNWTO organise a World Tourism Day on 27 September. The theme for 2008 was "Tourism – responding to the challenge of climate change". The aim was to promote the Davos Declaration and engage tourism stakeholders to adapt, to mitigate and use new technology and to secure financing for the poorest countries[i].

During the conference in Davos, and in the subsequent discussions, one of the main points reiterated was that special consideration should be given to the least developed countries and small island developing states in the provision of financial, technical and training support to tourism destinations and operators. However, UNWTO cannot tackle climate change and tourism issues in isolation. A side event at the UNFCCC COP 13 in Bali (2007), where the Davos Declaration Process was presented, aimed to integrate UNWTO efforts into the overall United Nations system response to climate change and to enhance collaboration and partnerships with related sectors. UNWTO will also continue to lead initiatives that contribute to the overall UN effort to develop a common framework in tackling climate change. Box 8 includes a timetable of selected climate change and tourism initiatives.

In the build-up to Copenhagen, UNWTO and partner organizations markedly increased their effort on the climate change and tourism issue. UNWTO Secretary General attended the UN Leadership Summit on Climate Change on 22 September 2009 in New York, delivering a "UNWTO Climate Commitment" message. "Sustainable tourism and travel is important for all countries and pivotal for the world's poorest states. It provides jobs, trade and development. It must be a pillar of the Green Economy with the active engagement of all tourism stakeholders. The World Tourism Organization is committed to working across the industry, both in the public and private domains, to advance a coherent response to Climate and Development imperatives, placing businesses at the heart of the transformation to a low carbon economy." UNWTO made a strong commitment to support the *Seal the Deal!* campaign and lobby for a fair, balanced and effective agreement in Copenhagen which will power green growth and help protect our planet, by involving tourism and travel sectors leaders in the call for an effective agreement on reducing emissions.

Box 8: Timeline of Selected Climate Change and Tourism Initiatives
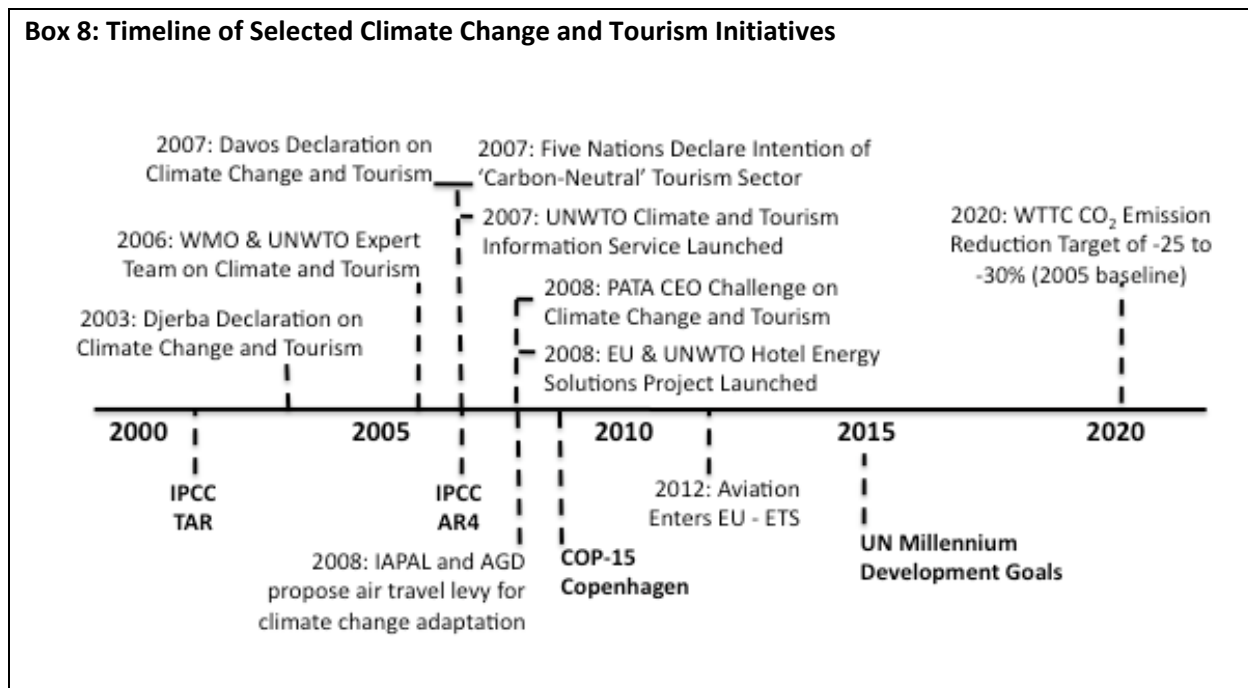
UNWTO is also aware of the importance of leading by example and will pursue its efforts in reducing its own emissions by raising-awareness among its staff, encouraging more efficient travel, investing in energy-efficient material, etc. In addition, in the framework of the "greening the UN" initiative, the Organization has calculated the GHG emissions generated by its own operations since 2008 and intends to compensate them in order to achieve climate-neutrality.

4. Capacity building and awareness raising events organised and supported by UNWTO

Whilst reducing carbon dioxide and other GHG emissions will help in the long term, there is also a pressing need for the tourism and travel sector to adapt to the expected impacts from climate change[li]. However, meteorological and climate projection data do not always adequately represent the conditions experienced in the variety of tourism destinations and locations. This could limit adaptation especially in developing nations[lii]. Governments play a significant role in the provision of climate information, as it is often perceived as an "economic public good," but this may just be essential observation data. There is an increasing demand for accurate, detailed climate information to allow tourism businesses to minimise the risks and capitalise on any new opportunities[liii] (Box 9).

In 2007, UNWTO launched a *Climate and Tourism Information Exchange Service*. It was created as a repository for information and as a display for data, studies, policy papers, videos and other material related to tourism and climate change, that would facilitate tourism stakeholders working together to develop coordinated approaches to tackling mitigation and adaptation. The organization has developed and disseminated technical publications addressing climate change impacts and adaptation responses. The most relevant is *"Climate Change and Tourism - Responding to Global Challenges"*. This report, commissioned by UNWTO, UNEP and WMO, was initially developed as background information for the Tourism and Climate Change Conference in Davos, Switzerland. It provides a detailed and comprehensive synthesis of the state of knowledge about current and future predicted impacts of climate change on global tourism. The report acknowledges that climate change will become an increasingly pivotal issue affecting tourism development and management. An overview of policy and management responses for dealing with the predicted impacts is also provided. The report, aimed at those with the responsibility to develop mitigation and adaptation strategies for the tourism sector, is available, together with other reports on climate change and tourism, in the UNWTO web page.

UNWTO has assisted countries through their National Tourism Administrations to access the GEF Special Climate Change Fund by approaching other multi- and bilateral funding sources and private sector organizations in order to secure co-financing. For example, a pilot project on tourism adaptation in the Maldives has been initiated, through collaboration with UNEP and UNDP and discussions initiated with SIDS in other regions.

Responding to the need to provide practical guidance and capacity building for climate change adaptation and mitigation practices in the tourism sector, in 2008 a publication was produced: *"Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, Tools and Practices"*[lv] combined with a comprehensive series of international and regional seminars designed to provide a pragmatic platform to strengthen the capacity of professionals to understand and respond effectively to the global challenges of climate change in tourism destinations.

> **Box 10: Hotel Energy Solutions Project[lvi]**
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> In 2008, UNWTO launched the Hotel Energy Solutions project. The Project is co-funded by the European Agency for Competitiveness and Innovation: UNWTO is the project coordinator, partners include UNEP, International Hotel and Restaurant Association, ADEME the French Agency for Energy Management and EREC the European Council for Renewable Energies. The international hotel sector is one of the largest drivers of global employment. However, in 2005, it was estimated that the accommodation sector accounted for 21 per cent of the carbon dioxide emissions from tourism[lvii]. The aim of this project is to provide energy efficiency solutions and increased use of energy efficiency and renewable energy technologies for the tourism accommodation sector across 27 European Union countries[lviii]. This is seen as a significant way to reduce the impact of the sector on climate change by mitigating emissions. The Hotel Energy Solutions project will do three things:
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> - Develop a range of tools and materials to assist small and medium enterprises hotels to plan for and invest in energy efficiency and renewable energy technologies.
> - Test the tools in hotels and use the lessons learned to improve them.
> - Tell people about these tools – disseminate and promote the most suitable practical solutions to SME hotels across the European Union and far beyond[lix].

In September 2009, UNWTO, in partnership with the European Travel Commission (ETC) and VisitSweden, and supported by UNEP and the Swedish Government, organised the *Travel and Tourism in the Green Economy Symposium*. The symposium focused on sustainable tourism and travel and the Copenhagen Agreement to be discussed at the UNFCCC COP 15 in December 2009.

5. The response of Governments and the private sector to the challenges that climate change poses to tourism

The private sector has a significant role to play in addressing the challenges climate change poses for tourism and travel. However, they cannot implement these alone. Governments need to be engaged and encouraged to develop and implement regulatory policies and offer economic incentives. Together they have a crucial role to play in tackling climate change and its impact on tourism and travel. In synergy with the UNWTO many tourism and travel organizations have embraced this challenge and opportunity.

> **Box 11: Challenge to develop cross-sector response to climate change**
>
> In 2008 the Pacific Asia Travel Association (PATA) challenged influential travel and tourism leaders to help develop, agree and sign on to a cross-sector response to climate change. Travel and tourism leaders responded, indicating that they were ready to be part of the first CEO Challenge. The first PATA Challenge event was held in Bangkok, Thailand and hosted by the Tourism Authority of Thailand. The agenda focused on actionable issues and challenged decision-makers from all sectors of the travel and tourism industry to agree and commit to actions that will confront climate change.

The World Travel and Tourism Council (WTTC) produced a report in 2009, which sets out a vision for tackling GHG emissions. It includes a commitment, endorsed by more than 40 of the world's largest

Travel and Tourism companies, to cut by half carbon emission levels of 2005 by 2035[lx]. There is also an interim target of achieving a 30 per reduction by 2020 in the presence of an international agreement or 25 per cent reduction in the absence of such an agreement[lxi]. The WTTC's report also acknowledged that the goals of industry leaders, customers and policy-makers need to be aligned and that partnerships can play an important role. It is hoped the report will also be utilised by policy-leaders in Copenhagen to ensure consideration of the potential of tourism to create economic and social prosperity. The WTTC has also identified a series of commitments, which the Council itself will use to track and measure its own efforts and success. These include working with governments to align frameworks; share information and best practice examples; support aviation's progressive carbon dioxide emission reduction strategies and encourage airlines to halve carbon emissions levels by 2050; and assist local communities in adopting practical mitigation and adaptation strategies[lxii].

In June 2008, CEOs from across the world, representing every industrial sector, submitted a set of recommendations to the G8 leaders for inclusion within a post-Kyoto climate framework. In March 2009, in response to the recommendations and to elaborate on how they should be implemented, a World Economic Forum (WEF) Task Force on Low-Carbon Prosperity was launched. In May 2009, the WEF, in collaboration with UNWTO, ICAO, UNEP and travel and tourism business leaders, produced the *Towards a Low Carbon Travel and Tourism Sector* report. Within the document, a number of ways to mitigate transport and accommodation greenhouse gas emissions are proposed. Both short- and long-term solutions are identified including market mechanisms such as global emissions trading schemes. The study also highlights how governments, industry and consumers can collectively improve the sustainability of travel which will ensure the continued growth of the sector.

Box 12: Council of Australian Governments' National Climate Change Adaptation Framework

The Council of Australian Governments' (COAG) National Climate Change Adaptation Framework, which was endorsed in April 2007, identified tourism as one of many sectors and areas vulnerable to climate change. The COAG Framework identified that "the impact of climate change on infrastructure and the natural environment has the potential to affect the tourism industry. In some cases this could result in social and economic impacts in regions with a high dependency on tourism as a source of income and employment." The COAG Framework gave the Tourism Ministers' Council (TMC) responsibility for developing an Action Plan over two years. In August 2007, Tourism Ministers established the Tourism and Climate Change Taskforce (the Taskforce) to develop the Action Plan.

A number of governments have announced their intention for their nations, including their tourism and travel sector, to become carbon neutral. Sri Lanka announced its initiative "Earth Lung – Carbon Free Sri Lanka" during the Davos Conference in 2007. Three other countries have announced their intention to have a "carbon free" or "carbon neutral" nation, including their tourism and travel sector[lxiii] (Norway, Costa Rica and the Maldives).

UNWTO is providing 'in-kind' support and support aimed at raising funds for governments and regional initiatives for climate change adaptation and mitigation projects in the tourism sector for key regional initiatives involving governments of numerous countries. The CARIBSAVE Partnership, formed in 2008, between the Caribbean Community Climate Change Centre (CCCCC) and the University of Oxford, and supported by a range of international partners including UNWTO, UNEP, UNDP, the World Bank, WWF, and other international and regional partners is addressing the impacts and challenges

surrounding climate change, tourism, economic development and community livelihoods across the Caribbean Basin. The Caribbean is a highly tourism-reliant region and also highly vulnerable to the impacts of climate change. The CARIBSAVE Partnership, which includes representatives from both the public and private sector, is providing practical strategies, assisting in capacity building and facilitating skills transfer across the region.

6. Conclusion

The climate is changing and will continue to do so for the foreseeable future. This will result in social, economic and environmental impacts. The degree of these impacts will depend on to what extent nations, industry and individuals mitigate emissions and adapt to changes. The issue of climate change is now firmly entrenched in the global agenda and critical negotiations for a GHG emissions framework continue. At a time of global economic downturn, a climate deal could fundamentally transform the global economy through the need for innovative technologies and sustainable development.

The tourism and travel sector must address the climate change issue and UNWTO has embraced the challenge of responding establishing collaborative partnerships, raising awareness, developing guidance and providing support. UNWTO is fully committed to promoting a reduction in the impact of greenhouse gas emissions from tourism activities. However, the role tourism plays in less developed countries needs to be taken into consideration in any discussions on emission reductions. Tourism contributes to sustainable development, poverty reduction and the Millennium Development Goals. Any framework agreement should not disproportionately disadvantage those most dependent on tourism.

Many of the potential solutions to reducing greenhouse gas emissions and tackling climate change are complex. It is important that partnerships are developed, maintained and enhanced and research into innovative approaches is continued. The Davos Declaration's specific recommendations to governments, international organizations, tourism industry and destinations, consumers, research and communication networks, set the guidelines of a comprehensive plan of action.

'The time is right': The time is right to further the discussion and debate on climate change and tourism. The time is right to "seal the deal" and establish a global emissions-regulated framework. The time is right for governments and the public sector to invest in greenhouse gas mitigation and climate change adaptation approaches. The time is right for public and private sectors to forge ahead with innovative low carbon initiatives that would not only create employment but would also contribute to the economy. The time is right because any further delay in action will result in consequences for the tourism industry and the people who depend upon the sector. UNWTO will continue to play its role to ensure that impacts are minimised, that all benefits to tourism and communities are realised and that tourism and travel continues to be a significant contributor to poverty reduction and the Millennium Development Goals.

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Annex I

DAVOS DECLARATION

**CLIMATE CHANGE AND TOURISM
RESPONDING TO GLOBAL CHALLENGES**

Davos, Switzerland, 3 October 2007

DAVOS DECLARATION

The international community is taking concerted action against climate change around a commonly agreed framework led by the United Nations. This UN framework will seek to establish a long term post-Kyoto roadmap with rapid deployment and targeted milestones. The tourism sector has an important place in that framework, given its global economic and social value, its role in sustainable development and its strong relationships with climate.

To support this action the World Tourism Organization (UNWTO), jointly with the United Nations Environment Programme (UNEP) and the World Meteorological Organization (WMO), with the support of the World Economic Forum (WEF) and the Swiss Government, convened the Second International Conference on Climate Change and Tourism, in Davos, Switzerland, from 1 to 3 October 2007. This event, building on the results of the First International Conference organised on this topic in Djerba, Tunisia in 2003, gathered 450 participants from over 80 countries and 22 international organizations, private sector organizations and companies, research institutions, NGOs and the media, with the aim of responding in a timely and balanced way to climate change imperatives in the tourism sector. In preparation of this Conference the organizers commissioned a report to provide an extensive review of current impacts and analyse options for possible actions.

The Conference agreed that:

- climate is a key resource for tourism and the sector is highly sensitive to the impacts of climate change and global warming, many elements of which are already being felt. It is estimated to contribute some 5% of global CO2 emissions.

- tourism - business and leisure - will continue to be a vital component of the global economy, an important contributor to the Millennium Development Goals and an integral, positive element in our society.

- given tourism's importance in the global challenges of climate change and poverty reduction, there is a need to urgently adopt a range of policies which encourages truly sustainable tourism that reflects a "quadruple bottom line" of environmental, social, economic and **climate** responsiveness.

- the tourism sector must rapidly respond to climate change, within the evolving UN framework and progressively reduce its Greenhouse Gas (GHG) contribution if it is to grow in a sustainable manner; this will require action to:
  - **mitigate** its GHG emissions, derived especially from transport and accommodation activities;
  - **adapt** tourism businesses and destinations to changing climate conditions;
  - apply existing and new **technology** to improve energy efficiency;
  - secure **financial** resources to help poor regions and countries.

The Conference calls for the following actions.

1) Governments and International Organizations:

- Incorporate tourism in the implementation of existing commitments under the United Nations Framework Convention on Climate Change (UNFCCC) and its Kyoto

Protocol, and respond to the call by the United Nations Secretary-General for launching, at the 13th session of the UNFCCC Conference of the Parties in Bali, December 2007, an effective and comprehensive climate change framework for the post-2012 period.

- Implement concrete, simultaneous actions for mitigation, adaptation, technology and financing, consistent with the Millennium Development Goals.

- Provide financial, technical and training support to tourism destinations and operators in developing countries (especially in the least developed countries and Small Island Developing States) to ensure that they can participate in the global climate response framework, through established initiatives, such as the Clean Development Mechanism.

- Promote, at all levels, interdisciplinary partnerships, networks and information exchange systems essential to sustainable development of the sector.

- Collaborate in international strategies, policies and action plans to reduce GHG emissions in the transport (in cooperation with ICAO and other aviation organizations), accommodation and related tourism activities.

- Introduce education and awareness programs for all tourism stakeholders – public and private sector – as well as consumers.

- Develop regional and local climate information services tailored to the tourism sector and promote their use among tourism stakeholders. Build capacities for interpretation and application of this information, strengthening collaboration with WMO's National Meteorological Services.

- Implement policy, regulatory, financial, managerial, educational, behavioural, diversification, research and monitoring measures, for effective adaptation and mitigation.

2) Tourism Industry and Destinations

- Take leadership in implementing concrete measures (such as incentives) in order to mitigate climate change throughout the tourism value chain and to reduce risk to travellers, operators and infrastructure due to dynamic climate variability and shift. Establish targets and indicators to monitor progress.

- Promote and undertake investments in energy-efficiency tourism programmes and use of renewable energy resources, with the aim of reducing the carbon footprint of the entire tourism sector.

- Integrate tourism in the formulation and implementation of regional, national and local level adaptation and mitigation strategies and implementation plans. The Nairobi Work Programme on Impacts, Vulnerability and Adaptation to Climate Change, coordinated by UNFCCC, represents an important opportunity for the tourism sector to enhance knowledge, increase capacities and stimulate action.

- Strive to conserve biodiversity, natural ecosystems and landscapes in ways which strengthen resilience to climate change and ensure a long-term sustainable use of the environmental resource base of tourism - in particular those that serve as "earth lungs" (carbon sinks), sequestering GHGs through forest management and other biological programmes, or that protect coastlines (e.g. mangroves and coral reefs).

- Seek to achieve increasingly carbon free environments by diminishing pollution through design, operations and market responsive mechanisms.

- Implement climate-focused product diversification, to reposition destinations and support systems, as well as to foster all-season supply and demand.

- Raise awareness among customers and staff on climate change impacts and engage them in response processes.

3) Consumers:

- In their choices for travel and destination, tourists should be encouraged to consider the climate, economic, societal and environmental impacts of their options before making a decision and, where possible to reduce their carbon footprint, or offset emissions that cannot be reduced directly.

- In their choices of activities at the destination, tourists should also be encouraged to opt for environmentally-friendly activities that reduce their carbon footprint as well as contribute to the preservation of the natural environment and cultural heritage.

4) Research and Communications Networks:

- Encourage targeted, multi-disciplinary research on impacts of climate change in order to address regional gaps in current knowledge, develop tools for risk assessment and cost-benefit analyses with which to gauge the feasibility of various responses.

- Include environmental and climate specific subjects in the study curricula of tourism training programmes and extend these to broader educational systems.

- Promote responsible travel that supports "quadruple bottom line" sustainable tourism, incorporating climate, environmental, social and economic considerations.

- Raise awareness on tourism's economic role as a tool for development, and present information on causes and effects of climate change based on sound science, in a fair, balanced and user-friendly manner.

The Conference

- sets out a range of specific actions to be taken by all stakeholders in the sector to immediately begin to establish and implement a long range carbon-neutral roadmap;

- invites governments and international organizations, the tourism industry, consumers, research and communications networks to implement these recommendations, with concrete commitments and action plans, and to use the UNWTO on-line Climate Change and Tourism Information Exchange Service as a platform, for committed stakeholders to register their pledges and activities toward adaptation and mitigation on an on-going basis;

- stresses the need that UNWTO, in collaboration with UNEP and WMO, continue to lead this process, and to consider convening a Third Conference on Climate Change and Tourism, at an appropriate time in the future, to review progress, to maintain response levels and to identify further needs and actions;

- urges action by the entire tourism sector to face climate change as one of the greatest challenges to sustainable development, and to the Millennium Development Goals in the 21st Century.

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The Davos Declaration and results of this conference will provide the basis for the UNWTO Minister's Summit on Tourism and Climate Change, scheduled at the World Travel Market, London, UK, 13 November 2007. It will be submitted for adoption at the UNWTO General Assembly in Cartagena de Indias, Colombia, 23-29 November 2007, and also will be presented at the United Nations Climate Change Conference in Bali, Indonesia, in December 2007.

The World Tourism Organization (UNWTO) is the only intergovernmental organization that serves as a global forum for tourism policy and issues. Its Members include 161 countries and territories as well as over 400 Affiliate Members from the public and private sectors. UNWTO's mission is to promote and develop tourism as a significant means of fostering international peace and understanding, economic development and international trade.

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