



Is Climate Change a threat to Tourism?

**Climate Change Conference Organised
by the Deputy Ministry of Tourism and the Cyprus Sustainable Tourism Initiative (CSTI)**

CONFERENCE PROCEEDINGS

The very successful conference was attended by around 300 delegates from all sectors of society. It was classified by members of the scientific and industry community as the first-ever event on the urgent issue of Climate Change impacts on the Cyprus Tourism sector. The Pancyprian Conference "Is climate change a threat to tourism?" was held under the auspices of H.E. the President of the Republic of Cyprus, Mr. Nikos Christodoulides, at the Filoxenia Conference Centre in Nicosia, Cyprus. It was organised by the Deputy Ministry of Tourism and the Cyprus Sustainable Tourism Initiative (CSTI).

The opening messages of the President of the Republic of Cyprus and the Deputy Minister of Tourism acknowledged Climate Change as a major threat to Cyprus and, particularly to the Tourism Sector of the island. They assured that the government will have a positive stand towards further actions on the strategic planning and adaptation of the sector to the rapidly changing climate and environmental conditions.

Dr. George Zittis, Researcher at the Climate and Atmosphere Research Center (CARE-C) of the Cyprus Institute as well as Dr. Christos Giannakopoulos, Research Director at the Institute of Environment and Sustainable Development, National Observatory of Athens, outlined with their scientific findings what can be expected in our region regarding the natural environment until the end of this century. Both speakers confirmed what also Mr. Drousiotis, Chairman of the Cyprus Sustainable Tourism Initiative warned, that Cyprus will be among the losers regarding tourism flows due to temperature increases, lack of rain and rising sea levels and everything else connected to this. Other destinations, in central or northern Europe, will likely become more attractive under warmer conditions.

Dr. Zittis in his presentation "**Climate Change in Cyprus and the Eastern Mediterranean**" highlighted that the Eastern Mediterranean, including Cyprus, is located at a climate change hot spot and that our region is warming faster than many other regions of the planet, while there is a trend towards drier conditions. He emphasized that in the future, we expect a further temperature increase, combined with an overall precipitation decline. He continued saying that the warming will be much more pronounced in the summer months. According to the scenario analysis, the magnitude of future climate changes and associated impacts can be significantly lower, but this requires timely and decisive actions.

Dr. Christos Giannakopoulos, Research Director, Institute of Environment and Sustainable Development, National Observatory of Athens, presented the **"Climate Change impacts on Tourism in Cyprus"**. Tourism is inextricably linked with climate conditions and climate change and is expected to have significant impacts on tourism activity. The island of Cyprus, as part of the Mediterranean, is one of the most vulnerable regions on the planet, expected to face a series of adverse effects on tourism due to climate change. Dr. Christos Giannakopoulos pointed out future climate projections and climate indicators related to tourism, estimated for the island of Cyprus. In particular, the number of days with high discomfort (i.e., level of Humidex greater than 35°C), which is a representative indicator for the assessment of tourists' heat related risk, shows increases of 20 -70 days for near (2030-2060)-distant (2070-2100) future, respectively. For Cyprus, the Sea Level Rise is projected to reach 60 cm under the RCP8.5 high emission scenario by the end of the century. The projected beach loss (of paramount importance for the tourism industry), is projected, under mean conditions, to increase from 38 to 54% by the end of the century for Cyprus. In addition, the Cooling Degree Days (i.e., days with high energy demand for cooling) in Cyprus is expected to be five times greater at the end of century. Estimates of Tourism Climatic Index (commonly used to describe the climate conditions suitable for tourism activities) show that Cyprus is one of the European regions that will experience negative effects for the June to August period. The average forest fire risk (FWI index) during the May-October fire season increases by about 5% in the low future emissions scenario (RCP2.6) but reaches 20% in the high future emissions scenario (RCP8.5) by the end of the century.

"TUI's response to Climate Change" was presented by **Kathrin Möllers**, Group Director Sustainability & ESG, TUI Group. It was a very detailed presentation about what TUI, one of the largest tourism businesses in the world, is doing for the reduction of emissions being part of an industry that can be considered a major contributor to rising CO₂ levels. At the same time, she also pointed out the opportunities connected to the issue of sustainability and described the very clear roadmap TUI has implemented with a commitment to specific targets to be reached by the milestone year set for 2030. The final target is to create a net-zero emissions business by 2050, at the latest, while maximizing the social-economic impact of tourism.

Elke Dens, Director of Global Programmes at the Travel Foundation, introduced **"The Glasgow Declaration on Climate Action in Tourism"** and showcased various examples of how such programs can successfully contribute not only to the reduction in emissions but also to cost saving. The targets are anyhow there for all signees of the Paris Agreement, but a climate action plan provides great opportunities for cooperation with other destinations, learning from each other while fulfilling the targets and developing greener holiday options, which also meet the expectations of the large finance markets.

Dr. Nicoletta Kythreotou, Head of the Climate Change Branch at the Department of Environment, Ministry of Agriculture, Rural Development and Environment, shared with us **"The actions of the Cyprus Government on Climate Change"** pointing out the roadmap clearly set by the European and Global obligations Cyprus is committed to. These include very clear targets for Cyprus to be reached in various sectors like energy, transport, agriculture, and waste, leading to very clear governmental focus in its strategic planning and setup. At the same time, tourism can contribute to the reduction by applying more environment-friendly practices, e.g., reducing waste production, reducing single-use products, increasing greenery, protection, and conservation of natural resources while most measures also contribute to the economic sustainability of the tourism sector.

"Climate neutrality and resilience in tourism - Planning and Strategies" was the title of the very interesting and detailed presentation of **Dr. Phoebe Koundouri**, Professor at the Athens University of Economics and Business and the Technical University of Denmark, President of the European Association of Environmental and Resource Economists (EAERE), President of the UN SDSN Global Climate Hub and Co-Chair of the SDSN Europe. Prof. Koundouri presented the Global policy framework for the transition to Sustainability and how the emission contribution of the tourism sector can be addressed with the Transition Road for Tourism in terms of Green and Digital Transition Resilience of the Tourism Ecosystem, Integration of Tourism Services in the Fit for 55 Package, improving access to data for the development of official Statistics and Sustainability Indicators, Horizontal Synergies with Ecosystems – Sectors, Agri-food, Construction, Digital Systems and Culture. She pointed to the importance of data to address the complexity of the SDGs using AI to control and manage them. Shifting diets, increasing crop and livestock productivity, and limiting

agricultural land expansion are the strongest drivers of positive change in global biodiversity. Meeting the EU's 2050 climate neutrality objective requires supporting the mass deployment of sustainable innovations – technology, finance, and socio-economic governance. Incremental innovation, but also disruptive or breakthrough technologies will be needed to accelerate the transition to a green economy and society. Bring together partners from the business sector, academia, and the public and non-profit sectors to create networks of expertise through which innovative solutions can be developed, brought to market and scaled-up for impact.

The Conference was concluded with a round table discussion moderated by Prof. Phoebe Kountouri. The discussion was attended by Mr. Costas Koumis, the Deputy Minister of Tourism, Mr. Philokypros Roussounides, Director General of the Cyprus Hotel Association (CHA-PASYXE), Mrs. Chrisemily Psilogeni, General Manager of the Association of Cyprus Tourist Enterprises (ACTE - STEK), Mr. Kostas Hadjipanagiotou, Director General of the General Directorate of Environment, Ministry of Agriculture, Rural Development and Environment and Mr. Philippos Drousiotis, Chairman of the Cyprus Sustainable Tourism Initiative.

Conclusions:

Climate Change is here, and humanity faces an even bigger crisis than Covid-19! Global temperature during the last five decades presented the highest increase of any other 50-year period on record. The summer of 2022 was the warmest ever by 0.3-0.4°C above the previous one, 2021, and it is estimated that 2/3 of Europe's inhabitants live in regions where air quality is below the WHO safety limit.

The current situation poses an important double challenge for the tourism sector through:

- i) its significant contribution to global emissions of greenhouse gas pollutants (8% of the total)
- ii) its increased vulnerability to climate change such as extraordinary weather conditions and other manifestations of climate variability and change.

The carbon footprint of the industry globally is dominated by transport which is responsible for almost half of the carbon footprint of the environmental burden, followed by tourism products, waste from catering and agriculture. In this context it is considered that the transformation of tourism is vital to combat climate change but also to strengthen the resilience of tourism businesses and operators.

The key features of Sustainable Tourism for the 21st century are:

- i. Respect for the Environment and Biodiversity
- ii. Protection and promotion of cultural heritage
- iii. Economic Benefits by mitigating inequalities.
- iv. Involvement of local society
- v. Long-term strategy

For all the businesses which are engaged in the tourism sector the pillars of sustainable transformation are:

- i. Diversification and evolution of the tourism product
- ii. Calculation of Risk using Scientific Methods
- iii. Adaptation to Climate Change through Flexible Strategies
- iv. Modern infrastructures
- v. Cooperation between all stakeholders

The sector's contribution to the objectives of the Circular Economy is very important. More specifically, the institutions and tourism services can promote the circular economy through using ingredients of local origin with a low environmental footprint and reducing food waste in the hospitality sector. In addition, it is a feasible objective to reduce and separate overall waste and increase water use efficiency and reduce pollution of the water resources.

Finally, the European Union supports the green transformation and the tourism sector through its initiatives, in particular the EU Green Deal. Tourism services are included in the Fit for 55 packages, as it is recognised that green and digital transition simultaneously support the resilience of the tourism sector, which is an important mechanism for economic growth in the EU. In this context, EU legislation and practices support the EU's growth potential and are helping the sector by improving access to data for official statistics and sustainability indicators, while promoting horizontal synergies with the agri-food sector, the construction sector and the digital systems and cultural services.

Tour operators are quite aware that Climate Change is a threat to Tourism and are taking specific measures and actions to reduce the environmental footprint of holidays. They also set specific conditions for destinations to be included in their programmes. It is useful for tour operators to inform tourism businesses at the destination about their actions on climate change.

The cost of the green transition is very high and cannot be borne entirely by the tourism industry. Guidance and support are needed for the tourism industry to achieve specific qualitative and quantitative targets. Although there are various State Plans that cover eligible costs related to the use of renewable energy sources and subsidies for environmentally friendly technologies, there is a need to develop a specific plan to support the tourism industry to mitigate the effects of climate change. There is a need to promote and reward tourism businesses that already implement sustainability practices and contribute to reducing the environmental footprint of their operations.

The Glasgow Declaration is a useful tool for local authorities and businesses to achieve specific targets for climate change mitigation as part of an agreed action plan and for international visibility of their actions to promote sustainability.

Local Government has a key role to play in creating infrastructure to mitigate the effects of climate change. It has a particularly important role to play in waste management and in preventing warming by planting trees. It also has an important role to play in providing environmentally friendly public transport.

Strengthening the channels of communication and cooperation between the state, especially the Department of the Environment, and the tourism industry is imperative and can help. It is useful for tourism businesses to be aware of and take advantage of the measures and infrastructure being put in place to mitigate the effects of climate change.

Raising awareness in the local community and keeping the tourism industry informed is vital because climate change will affect both visitor satisfaction and the well-being of local people.

Coordinated action to mitigate climate change requires the development of an agreed action plan by the Deputy Ministry of Tourism, tourism industry partners with the participation of local authorities and the Department of the Environment to monitor the impacts of climate change and take measures to mitigate its effects.