biggest challenges facing mankind in the coming years. Rising temperatures, melting glaciers and increasingly frequent droughts, flooding and other extreme weather phenomena are all evidence that climate change is really happening. However, many of the impacts of climate change can be reduced, delayed or avoided by reducing our greenhouse gas (GHG) emissions and our carbon footprint

# Contribution of tourism climate change

The World Tourism Organization of the United Nations estimated that the global tourism industry generates 5% of the GHG emissions generated globally. In 2005, transport generated the largest proportion of  $CO_2$  emissions (75%) from global tourism, with approximately 40% of the total being caused by air transport alone. Emissions from accommodation facilities were estimated to account for 21% of the overall emissions from tourism activities .

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# Strategic Planning towards Carbon Neutrality in Tourist Accommodation Sector



## CARBONTOUR

Calculate your carbon footprint

✓ Reduce your CO<sub>2</sub> emissions

✓ Help the environment!

## About CARBONTOUR



The project "Strategic Planning Towards Carbon Neutrality in Tourist Accommodation Sector" -

CARBONTOUR, initiated on September 2010 and has a duration of 28 months. The coordinator of the project is the Region of North Aegean while the project are the National Technical University of Athens, the company EPTA Environmental Engineers & Consultants, the Cyprus Hotel Association, the Aeolian Village hotel in Lesvos and the Mayfair Hotel in Pafos. The project is co-funded by the LIFE+ programme, the EU financial instrument for the environment.

### The objectives of CARBONTOUR are:

- ⇒ To quantify and evaluate greenhouse gas emissions from tourist accommodations, i.e. their **carbon footprint** 📆
- ⇒ To develop a strategic approach, incorporating appropriate set of mitigation measures for CO<sub>2</sub> offsetting in order to reduce the contribution of the tourist accommodation sector to climate change.

## Benefits for the tourist accommodations

The CARBONTOUR project is expected to benefit tourist accommodations mainly by:

- Providing insight on those facilities and services of a tourist accommodation that contribute mostly to energy consumption, water consumption and waste production
- Indicating appropriate and cost effective interventions for energy, water and waste reduction
- Strengthening their environmental profile as well as their corporate social responsibility

## The CarbonTour tool

In the framework of this project, a carbon footprint software tool which calculates CO<sub>2</sub> emissions generated in tourist accommodations has been developed. The tool is user friendly, requiring the user to provide, as much as possible, simplified data regarding the type, number of rooms and location of the unit, its building characteristics, the desired indoor temperature, fuel and systems used, renewable energy, waste & wastewater management.

The tool, after processing the data inserted, presents the distribution of  $CO_2$  emissions generated by each energy consuming facility of the tourist accommodation together with a sensibility analysis. Moreover it presents the  $CO_2$  emissions generated according to the applied waste treatment method, whether waste are treated inside the unit or centrally, at the municipality.



General Information	General Data		
General Information	Name of the Accomodation		
Building Characteristics	Type of the Accomodation	_	
	Rating of the Accomodation	·	
Data on Demands	Region	•	
	Number of Beds		
Fuel & Systems			
Renewable Energy	Monthly Accommodation Occupancy (%)		
	January	July	
Waste Management	February	August	
	March -	September 🔻	
WasteWater Management	April	October	
	May	November v	
Results	June	December •	

The CarbonTour tool will be applied in 80 tourist accommodation units in North Aegean, Greece and in Cyprus but it will also be available for everyone to use it.

More information on the project available at: <a href="http://uest.ntua.gr/carbontour/">http://uest.ntua.gr/carbontour/</a>