

6th Conference Dubrovnik SDEWES  
e)mission neutral certified®



UNESCO sponsored conference

6<sup>th</sup> DUBROVNIK CONFERENCE ON SUSTAINABLE DEVELOPMENT  
OF ENERGY WATER AND ENVIRONMENT SYSTEMS

September 25 - 29, 2011, Dubrovnik, Croatia

## Carbon footprint calculation and compensation (greenhouse gas emissions)

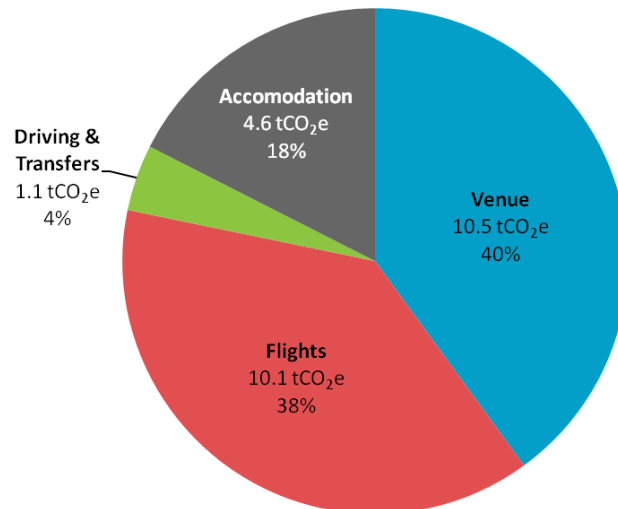
Our methodology for estimating emissions comprises the use of the best elements of a number of strategies, including the Greenhouse Gas Protocol, developed by the *World Resources Institute and the World Business Council for Sustainable Development*, and those developed by *Carbon Trust*, widely recognized in leading carbon emission reductions for businesses.

It is not always possible to replace the need for “energy services”, but pollution can be compensated via different ways. “**Offsets**” deliver carbon emission reductions are one of the many ways to mitigate climate change.

### The scope

Greenhouse gas emission sources accounted for:

- Venue
- Organization Flights
- Driving & Transfers
- Accomodation



### The footprint

The carbon footprint is 26.3 tonnes CO<sub>2</sub> equivalent

This is the equivalent to:

- The annual carbon footprint of 4 European citizens
- Emissions arising from consuming 61 barrels of oil
- The volume of gas, enough to fill up 5 hot air balloons
- 11 passengers on a return flight economic London – New York

26.3 tonnes CO<sub>2</sub>e this amount of CO<sub>2</sub> has been compensated

## Neutralizing the footprint

### Our Projects

Portfolio e)mission®



## How do we compensate, or offset, the carbon footprint?

The compensation of the carbon footprint can be done by investing in projects that reduce greenhouse gas emissions, and which, without this “carbon finance” would otherwise not be viable. This can be achieved through projects that improve energy efficiency, apply renewable energy technologies or involve substituting dirty fuels for cleaner ones, for example. For each tonne of greenhouse gas avoided, a “carbon credit” is issued after a formal verification procedure. Following the Kyoto Protocol and the highest international reference standards, these projects are located in developing countries where they can support local sustainable development while at the same time achieving additional carbon reductions.

Enough carbon credits were purchased and definitively retired from circulation to neutralize 26.3 tonnes of CO<sub>2</sub>e, the calculated carbon impact arising from the organization of the 6th Dubrovnik Conference.

The carbon credits for this compensation were delivered by the following **projects**. **See the full detail project fiche for each from the e)mission website.**

#### Mini Hydroelectric project in Honduras

The project consists of a small run-of-river hydroelectric project with 4MW of installed capacity. Built along the Babilonia river. The main purpose of the project activity is to avoid the construction of new thermal power plants by generating electricity through sustainable, clean and secure means, using hydropower resources. This will contribute to a more reliable and secure provision of electrical services in the area. Besides reducing the dependency on fossil fuels, this project will trigger local development.

#### Ceramic Facility Fuel Switching Project in Brazil

This project is composed of three small ceramic businesses situated in the state of Rio de Janeiro, Brazil. The ceramics had used heavy oils as fuels for the kilns to produce its products, endangering the fragile ecosystems in the region. Understanding the impact that this had on the environment, the ceramics wanted to pursue a more sustainable form of production and replaced the heavy oils used in production to renewable biomass to generate thermal energy for the ceramic kilns. The new biomass came from sawdust and wood residues from areas of reforestation.

#### Composting in South Africa

The project involves composting of green waste (plant residues, garden waste, park waste) from the municipality of Cape Town. Biological (green) waste is taken from three Waste Transfer Stations in Cape Town to be sorted. It is decontaminated if necessary and chipped to reduce the volume, then brought to the composting site where it is treated and accumulated into piles. The objective is to produce controlled microbial compost in order to restore the fertility and buffering capacity of local agricultural soils.