

## CO<sub>2</sub> COMPENSATION FOR FLIGHTS: CALCULATION METHOD 2008

Compensation of 1 ton of CO<sub>2</sub> will require around 50 growing trees a year (source: Coolflying.com and VBV-Belgium).

An average airplane produce around 0.18 ton CO<sub>2</sub> per 1000 km for travels less than 1000 km, and 0.11 ton CO<sub>2</sub> per 1000 km for travels longer than 1000 km (source: UNEP 2000, the GHG-Indicator).

Because flying produces more emissions than CO<sub>2</sub>, EU suggests to double the amount of CO<sub>2</sub> for a fair impact calculation (source: COM2005 – Reducing the Climate Change Impact of Aviation, Brussels). By doubling the CO<sub>2</sub> amount, we are very close or beyond a real compensation.

In 2008, the price of one ton of CO<sub>2</sub> is in average 21.75€ in EU (source: EU Allowance EUA), while if projects are made in developing countries, the price is 16.90€ per ton CO<sub>2</sub>. For convenience, FEE suggests a price of 20.00€ per ton CO<sub>2</sub> (price might be evaluated and changed annually).

Calculation formula:

	CO <sub>2</sub> emission per 1000 km (doubled)	Calculation
Travel <1000 km	0.36 ton CO <sub>2</sub>	$\frac{X \text{ km} \times 0.36 \times 20\text{€}}{1000}$
Travel > 1000 km	0.22 ton CO <sub>2</sub>	$\frac{X \text{ km} \times 0.22 \times 20\text{€}}{1000}$

Since the calculation method is using a rough estimate with a doubling of the amount to ensure a fair impact calculation, FEE has, in order to minimize bureaucracy, decided to calculate the direct distances between the airport of departure and the airport of arrival (and not include airports of intermediate landings).