

## CO2 Calculation Method and Information Sources

Calculation is very simple and as below:

CO2 produced (in grams/kilometre) = Distance travelled x (g/km of CO2)

Data for the g/km produced by different types of vehicle and travel modes was obtained from 7) and there is a lot more detail than the examples below.

Examples are:

Average Petrol car	209.5 g/km
Average Diesel car	198.7 g/km
Average car	207.0 g/km
Rail	60 g/km per person
Bus	89 g/km per person
Air Long Haul	105.6 g/km per person
Air Domestic	158.0 g/km per person

“Car” values are for the “whole car” so *with more than one occupant the CO2 footprint per person improves and can be superior to bus or rail.*

Density of CO2 = 1.9769 kg/cubic metre (approx 2kg/cubic metre) – useful for calculating volumes to bring the figures to life e.g. 50mx10mx2m swimming pool would contain 2000kg ( 2 tonnes) of CO2 ( approx' actually 1977kg)

### Links

*CO2 Calculators:*

1) Nice one for comparing different modes of travel:

<http://www.transportdirect.info/web2/JourneyPlanning/JourneyEmissionsCompare.aspx?repeatingloop=Y>

2) Act on CO2 –Defra Calculator

<http://actonco2.direct.gov.uk/index.html>

*General Interest*

3)Lots of CO2 data: <http://cdiac.ornl.gov/faq.html>

4) A link to the Defra “Act on CO2 Site”

<http://www.defra.gov.uk/environment/climatechange/uk/individual/actonco2/index.htm>

*Carbon Footprint Methodology and Footprints*

5) Defra CT on CO2 Calculator methodology with

<http://www.defra.gov.uk/environment/climatechange/uk/individual/pdf/actonco2-calc-methodology.pdf>

6) Defra Data ( 2007) for CO2 produced by different sources , travel modes and types of vehicle. Annexe 6 -9 gives the CO2 figures for varieties of road vehicles, rail, and air

transport <http://www.defra.gov.uk/environment/business/envrpf/pdf/conversion-factors.pdf>