

## THE CARBON FOOTPRINT

The carbon footprint is defined as the impact that people have on the environment by production of greenhouse gas (GHG), measured in units of carbon dioxide (CO<sub>2</sub>).

The three principal ways that GHGs are produced are:

- in our homes to heat, light, cook, etc: using gas and oil, and electricity produced from fossil fuels (wood and coal are also used but in very small quantities)
- travel by road, air, rail or sea
- embedded in the things we buy and the work and leisure activities we pursue

## WHICH CARBON FOOTPRINT

The main GHG is CO<sub>2</sub>. The Government estimated that within the UK national boundary CO<sub>2</sub> produced in 2017 was 366.9 million tonnes (mt). Other GHGs - methane, nitrous oxide, and F-gases - expressed as CO<sub>2</sub> equivalents bring this total to 453 mt. These figures include the principal uses listed above but by agreement exclude international air and sea travel; inclusion of CO<sub>2</sub> produced from such international travel originating in the UK (126 million flights) would add a further 43 mt, bringing the total to 496 mt per annum. There is international pressure to include these in all UK figures.

Also excluded are consumption emissions which relate to goods manufactured elsewhere and imported to the UK. Defra statistics indicate that these consumption emissions would add another 69% to national emissions, but as these cannot be controlled by the UK they are excluded from further consideration here.

## BRAUNSTON EMISSIONS

The generally quoted per capita figure for the carbon footprint of a UK citizen is approximately 5.6 tonnes per annum. This is based on the lower total figure of 366.9 million tonnes, divided by the total population of 66 million (2018).

If all GHGs are included the figure rises to 6.9 tonnes per person; allowing for international aviation and shipping brings it to 7.6 tonnes per person.

Applying these figures to give an estimated total for Braunston's population of 1,759 (2011 census):

emissions type	UK total annual CO <sub>2</sub> emissions	for population 66 million: average per UK citizen	for population 1,759: total for Braunston
CO <sub>2</sub>	366.9 million tonnes	5.6 tonnes	9,850 tonnes
CO <sub>2</sub> + other GHGs	453 million tonnes	6.9 tonnes	12,137 tonnes
CO <sub>2</sub> + other GHGs: aviation and shipping	496 million tonnes	7.6 tonnes	13,368 tonnes

## INDIVIDUAL CO<sub>2</sub> EMISSIONS

Clearly it would be helpful to planning and monitoring if the average estimated figures above could be refined to actual figures specifically for Braunston.

There are web sites where people can enter details to assess individual carbon footprints: for example footprint.wwf.org.uk, carbonfootprint.com, and carbonindependent.org. The results from these differ depending on the amount of detail they require and the assumptions included in the calculation, e.g. average car mileage, and fuel efficiency; and of course to be useful the data would require input from a high proportion of Braunston's residents.