

Section 7.4a

Title: Draft 1 Carbon & Ecological Footprint

1. & 2. Overview and Story Behind the Data

What is the carbon and ecological footprint in Blaenau Gwent?

The carbon footprint is the total amount of greenhouse gases produced to directly and indirectly support human activities, in particular the production of goods and services such as food, housing, travel, consumer items, private and public services and construction. The carbon footprint describes the physical quantity of greenhouse gases emitted to atmosphere. It includes six greenhouse gases¹ expressed as tonnes of carbon dioxide equivalent (tCO₂e). This is where the emissions of non-CO₂ greenhouse gases are adjusted to the equivalent emissions of CO₂ that produce the same global warming potential. Local authorities with the lowest carbon footprint tend to be those with the lowest overall environmental burden per capita i.e. the valleys and more densely populated areas in South Wales².

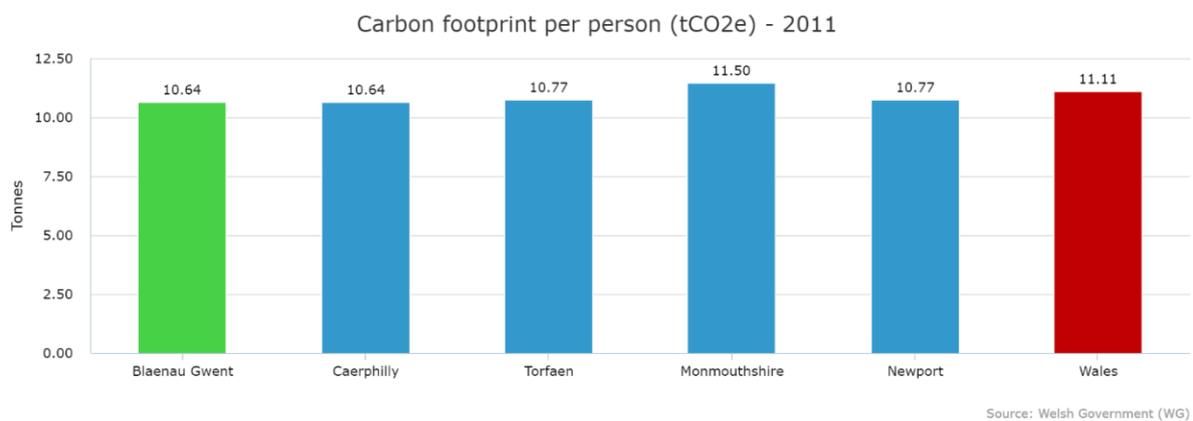
Figure EN1 shows the carbon footprint per person across the Gwent region for 2011, measured in tonnes of carbon dioxide equivalent per person. This ranged from 10.64 tonnes per person in Caerphilly and

¹ These are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFC), perfluorocarbons (PFC) and sulphur hexafluoride (SF₆)

² 2015. Ecological and Carbon Footprints of Wales – Update to 2010. Stockholm Environment Institute and GHD.

Blaenau Gwent to 11.50 tonnes per person in Monmouthshire. This compared with 11.10 tonnes per person for Wales.

Figure EN1



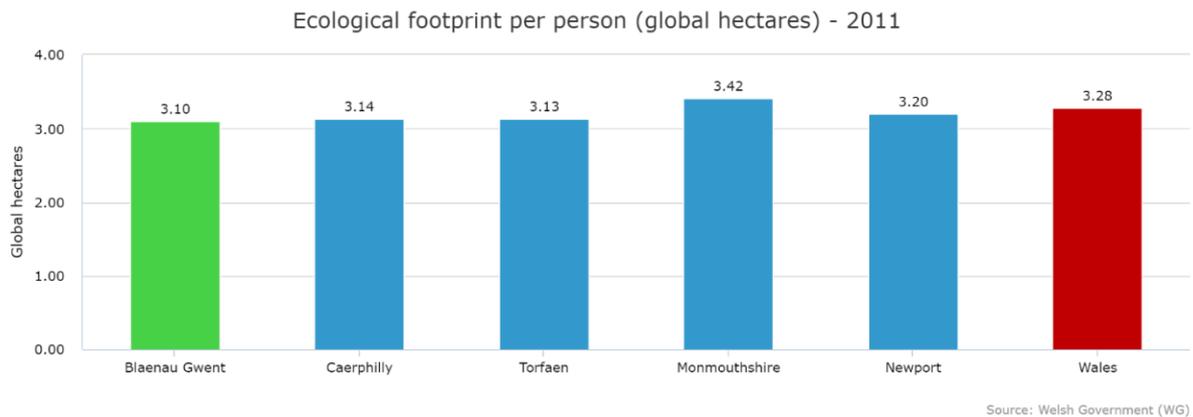
The ecological footprint is an indicator of the total environmental burden that society places on the planet. It represents the area of land needed to provide raw materials, energy and food, as well as absorb pollution and waste created, and is measured in global hectares³. The ecological footprint for a particular population is defined as “the total area of productive land and water ecosystems required to produce the resources that the population consumes and assimilate the wastes that production produces, wherever on Earth that land and water may be located”⁴. The consumption of food, housing, transport, consumer items, private services and public services together accounts for 85% of the ecological footprint.

³ 2015. Ecological and Carbon Footprints of Wales – Update to 2010. Stockholm Environment Institute and GHD.

⁴ Rees, W. E. (2000); Eco-footprint analysis: merits and brickbats. UNSD, 2007.

Figure EN2 shows the ecological footprint per person across the Gwent region for 2011. This ranged from 3.10 global hectares per person in Blaenau Gwent to 3.42 global hectares per person in Monmouthshire. This compares with a figure of 3.30 global hectares per person for Wales.

Figure EN2



3. What we know from engagement?



During the Blaenau Gwent We Want Engagement exercise, the partnership undertook and attended numerous engagement activities and events throughout the borough to gather people's views.

Residents also took part via the Blaenau Gwent We Want Facebook page and partnership websites. Links to an online questionnaire were also distributed to many residents known to the partnership, such as members of the Blaenau Gwent Citizen Panel.

Residents were encouraged via the methods above to answer a range of questions that sought to capture:

- Citizen values, aspirations and priorities;

- Citizen needs – insight into the needs they and their communities encounter within daily life and what the best solutions may be and
- Citizen assets –what people can and already contribute themselves such as self-care, citizen and community action and volunteering.

Q1. What do you think is special about BG?

Q2. What things are important to you to live well and enjoy life?

Q3. What would make BG a better place?

Q4. What can you do to help make BG a better place?

Approximately 1,000 residents were engaged with (across all groups) during the engagement phase.

Whilst the areas carbon footprint didn't feature explicitly within public engagement as being important ,the environment and landscape were identified as things people felt were special about Blaenau Gwent.

Environment also featured as one of the top things people felt were important for them to enjoy their lives. Waste and recycling also featured as an important issue for people as did the importance of clean and tidy streets. 25% of respondents also felt they had a role in making Blaenau Gwent a better place and once again environment featured in the top three themes identified as important to people.

4. What we know from existing research

Further work will be undertaken dependant on the direction given by the public service board on priorities following its 21 March 2017 meeting.

5. What this tells us about Well-being in Blaenau Gwent

Climate Change

Climate change is happening in Wales. Over the period 1914 to 2006, daily mean temperature rose by 0.7°C, and there has been a 22.4 day reduction in air frosts per year between 1961 and 2006. There has been

a significant decline in summer rainfall in Wales of 24% (1914-2006), and heavy rainfall events (between 1961 and 2006) have increased in winter and decreased in summer (Jenkins et al. 2009).

In 2009, Welsh Government summarised the projected climatic changes for Wales as:

- More frequent and intense rainfall events.
- Hotter, drier summers.
- More extremely warm days.
- Milder, wetter winters.
- Less snowfall and frost.

With these predicted changes in weather, the Committee on Climate Change (2017) has identify key risks. These are: more frequent flooding to communities, businesses and infrastructure; the effects on health and wellbeing from high temperatures; water shortages; impacts to the benefits nature provides (natural capital); threats to UK and global food production; and new and emerging pests and diseases.

These risks can present serious consequences to health and wellbeing of residents, as well as to essential community assets. The PSB needs to develop an understanding of the actions that need to be taken locally to adapt and build resilience, protecting from the impacts of severe weather. This should also allow mitigation measures to be spotted and the accompanying opportunities to develop a low carbon society.

References

Committee on Climate Change. 2017. *UK Climate Change Risk Assessment, 2017 (UKCCRA17), Wales Summary*.

Jenkins, G.J., Perry, M.C. & Prior M.J.O. 2009. *The climate of the United Kingdom and recent trends*. Met Office Hadley Centre, Exeter, UK.

Welsh Assembly Government. 2009. *Climate Change: its impacts for Wales* [online]. Available at:

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