

We may use the terms “global warming” and “climate change” interchangeably, but “global warming” is only one aspect of climate change. “Global warming” refers to the long-term warming of the planet, with a temperature rise of 1°C since the 1950s. “Climate change” encompasses global warming, but also includes the broader range of changes that are happening to our planet. These include rising sea levels; shrinking mountain glaciers; accelerating ice melt in Greenland, Antarctica and the Arctic; and shifts in flower/plant blooming times.

Nearer to home, in the UK we are experiencing:

- Warmer and wetter winters
- Hotter and drier summers (although it is hard to believe that at the moment!)
- More frequent and intense weather extremes such as storms, floods, heatwaves (which can have a high toll on human health) and wildfire incidents

The physical causes of global warming (such as volcanic eruptions) have always existed but the human causes are far more varied and significant, including:

- The burning of fossil fuels (those which are naturally occurring such as coal and gas) for transport, industry and power. In particular, the burning of fossil fuels creates greenhouse gases (typically 75% carbon dioxide) and which trap escaping thermal energy, causing the earth to get warmer. This is why the Church of England’s “Nett Zero Carbon (NZC) by 2030” initiative, as discussed in the previous edition, is so important
- Increased car exhaust emissions
- The increased production and use of fertilisers to meet worldwide food demands
- Worldwide deforestation, often involving rainforest burning
- CFCs found in fridges and aerosols and as a by-product of the production of polystyrene packaging
- Methane gas released from landfill sites as waste decomposes
- Peat bog reclamation
- The increase in paddy fields to feed rapidly growing populations in Asian countries

This following question was asked in the March 2024 edition:

Which of these three actions on average make the least impact and which make the most impact in terms of reducing carbon emissions?

The answers are given below in tonnes of CO₂ equivalent a year per household:

- Insulating your walls and loft or installing double glazing – 0.9
- Household recycling – 0.01
- Switching to a renewable electricity supplier - 1.6

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