

# Dronfield Civic Society

## Climate Change

### A Position Paper

#### There is no Planet B

"The moment of crisis has come in efforts to tackle climate change. We have been putting things off year after year. We know perfectly well that human activity is behind the heating of the planet". Sir David Attenborough

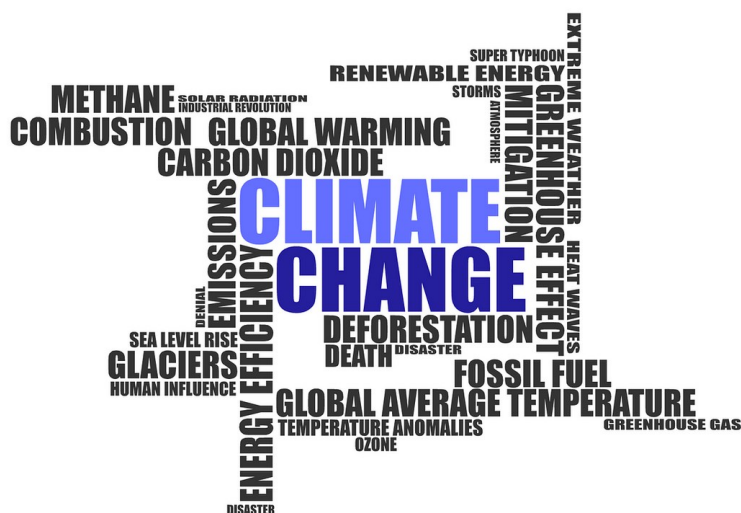
### THE SCALE OF THE PROBLEM

Rick Battarbee, Emeritus Professor of Environmental Change, University College London and a member of Addingham Civic Society, tells us that *"the global mean temperature for July 2019 was the highest on record"*. Echoing the quote from Sir David Attenborough above, Professor Battarbee continues, *"We also know that this increase in global temperature is due to human activity, principally by increasing the concentration of carbon dioxide in the atmosphere."*

*In October 2019 the carbon dioxide concentration of the atmosphere was 412 parts per million (ppm) and rising. The effects of climate change are already serious. Once the concentration exceeds 450 ppm and temperature increases much beyond 1.5 degrees C (compared to the late 19th century baseline) the situation is likely to become dangerous".*

The urgency of the issue has been recognised internationally with the signing of the UN 2015 Paris Agreement. The current Climate and Ecological Emergency Bill has in part of its introduction the following statement: *"In 2015, the historic Paris Agreement was signed, holding world governments to keeping a global temperature rise this century well below 2 degrees C above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees C. As a report from the Intergovernmental Panel on Climate Change (IPCC) in 2018 showed, just that extra half a degree of heating could: .....expose tens of millions more people worldwide to life-threatening heat waves, water shortages and coastal flooding. Half a degree may mean the difference between a world with coral reefs and Arctic summer sea ice and a world without them".*

In May 2019 the UK Government declared a "climate emergency" setting a target to reach net zero emissions before 2050. World population is increasing with some predictions suggesting that there will be one billion more people on the planet in the next ten years. Climate change will make it ever more difficult to feed the world's population and provide adequate supplies of water for that population. The problem of climate change is enormous and urgent. There is no Planet B!



### WHAT NEEDS TO BE DONE?

The Centre for Alternative Technology at Machynlleth has worked for years on the issue of climate change, producing many reports. One of the most recent is "Zero Carbon Britain: Rising to the Climate Emergency".

The report maintains that *"we already have the tools and technology needed to efficiently power the UK with 100% renewable energy, to feed ourselves sustainably and so to play our part in leaving a safe and habitable climate for our children and future generations. By making changes to our buildings, transport systems, land use and behaviour, and by investing in a variety of renewable energy technologies, we can achieve a zero carbon transition while building in a wide range of additional benefits".*

In terms of energy, the report talks about both "powering down" and "powering up". The Centre believes that we can reduce energy demand for heating by around 50% and reducing how much we travel and changing our modes of travel could cut energy demand for transport by 78%. We can supply 100% of the UK's "powered down" energy demand with renewable and carbon neutral energy sources. Concerning "powering up" renewable energy, there are many different renewable energy sources suited to the UK- solar, geothermal, hydro, tidal and wind. Most of these produce electricity and, where it is not possible to use electricity, carbon neutral synthetic fuels play an important role, for example, in industry and transport. The Centre also recommends dietary change to reduce global warming. Through dietary change, food waste reduction and improved agricultural practices, we could provide a healthy, sustainable diet for the whole UK population. The modelled dietary change contains significantly less protein from meat and dairy (which have high emissions and use a lot of land) and more from plant-based sources like beans, nuts, cereals and vegetables. Making these changes, the Centre suggests, would mean that we can double UK forest area and restore half of UK peatlands.

Sharing 'Zero Carbon Britain' can inform ambitious practical actions and policy shifts by clearly demonstrating that all the technologies needed to power down demand and power up clean energy are ready and waiting, changes in land use, reduced food imports and healthier diets are a key part of the plan and that action on climate change can provide many additional benefits, including improved health and wellbeing, better housing and enhanced biodiversity.



## **UK CLIMATE CHANGE COMMITTEE REPORT DECEMBER 2020**

The UK Government's official advisers, the Climate Change Committee, has produced what it claims to be the world's first detailed route map to ending a nation's use of fossil fuels, which is "both ambitious and affordable" and would see half of the cars on the road being electric by 2030 and 10,000 giant wind turbines in the North Sea. The Committee found that the future cost savings from no longer having to buy oil and gas almost offsets the £50 billion a year investment needed in low-carbon power, transport and home heating costs across the next three decades.

### **NORTH EAST DERBYSHIRE DISTRICT COUNCIL**

In July 2019, NEDDC declared a Climate Change emergency and committed to a range of measures intended to reduce the authority's impact on climate change. *"The ambition of this plan is to achieve an 80% carbon reduction, measured against our 2014 baseline, by 2030. We need to reduce our reliance on climate damaging energy and change the way we operate so we utilise more renewable energy sources in a move to a lower carbon lifestyle. To do this we need to take a long hard look at ourselves. We need to reduce the amount of power we need by properly insulating our buildings, utilise the latest technologies and educate ourselves and others. Put simply, we need to be more careful with our use of resources by finding more efficient ways of doing things".*

### **DRONFIELD TOWN COUNCIL**

In September 2019, DTC declared a climate emergency and resolved to take action, to the best of its ability, to help towards achieving a shift to zero carbon emissions by 2050, or sooner if possible. The Council will also help promote and encourage environmentally friendly initiatives that will contribute to the protection of the local environment.

### **ZERO CARBON HARROGATE**

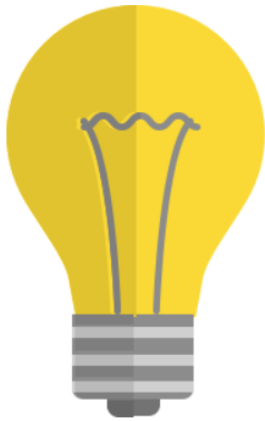
Zero Carbon Harrogate is a voluntary group established in 2016 with the aim of reducing carbon emissions in Harrogate by 10% a year to be able to reach net zero by at least 2050. It plans to do this by:

- raising awareness of the need to transition to a low carbon sustainable economy and the means by which it can viably be achieved;
- maintaining or raising the standard of living, using a wide range of criteria (wider than economic growth);
- assisting in promoting or developing projects that "power down" our energy demand by around 60% with major savings in building heating and transport;
- assisting in promoting or developing projects that "power up" the use of renewable energy from a variety of sources and carbon neutral energy produced without using fossil fuels. Providing clean, local, secure energy for our district;
- developing strategies to bring about behavioural change to reduce personal carbon footprints through diet, product and service consumption, transport and domestic energy use;
- encouraging the creation of local "green" jobs in our district;
- promoting carbon capture by increased afforestation and peatland restoration;
- campaigning for the implementation of low carbon sustainable strategies with local and national government as necessary.

Zero Carbon Harrogate believes that to get to being a low carbon district we need to "power up" (local clean energy, consider how we heat our homes without the use of oil and gas, promote ground source and air source heat pumps and district heating schemes) and "power down" (ensure developers use the highest building standards in order to reduce energy consumption now and "deprioritise" the use of cars and promote public transport and walking and cycling). By building better places we will provide people with warm homes with lower energy bills, green jobs, better health, stronger communities and build in climate resilience.

## WHAT IS A CARBON FOOTPRINT AND WHAT CAN WE DO TO REDUCE IT?

A Carbon Footprint is the amount of carbon released into the atmosphere as a result of the activities of a particular individual, organisation or community.



**Did you know?** If we switched every light in the UK to low-energy LED lights, we could cut our power needs by the equivalent to more than two new nuclear power stations!

**Did you know?** By turning down your central heating thermostat by just 1°C you could reduce the energy you use for heating by 10%. The same principle applies to air conditioning when it's hot - the less you use it (a warmer home in summer), the more you save (in money and carbon).

## HOW YOU USE ENERGY AT HOME PLAYS A BIG PART IN YOUR CARBON IMPACT ON THE WORLD.

**Did you know?** 19 million UK homes have poor levels of energy efficiency – meaning that people are wasting energy and money heating the street around their home!

**Did you know?** Basic energy efficiency measures – insulation, double-glazing, low-energy lighting – can cut your energy bills by up to a quarter.



**Did you know?** Lighting can account for up to 15% of your household electricity bill, so you can cut down just by turning off lights when they're not needed. And don't leave devices on standby — some of them use quite a lot of energy still, adding to your footprint.

**Did you know?** Buying local and seasonal food will generally result in a lower footprint. It depends how it's produced and packaged, but it is more likely to have a lower environmental footprint. Not that buying from abroad is necessarily a bad thing. Food grown in a sustainable way and traded fairly can be vital for developing countries. Buy thoughtfully...

## YOUR DIET IS AN IMPORTANT PART OF YOUR CARBON FOOTPRINT.

**Did you know?** A large proportion of greenhouse gas emissions comes from food production, and meat and dairy are associated with much higher carbon emissions than plant-based food.

Calculate your carbon footprint: <https://footprint.wwf.org.uk>



**Did you know?** One third of all food produced is wasted. Every year wasted food in the UK represents 14 million tonnes of carbon dioxide emissions. In total, these greenhouse gas emissions are the same as those created by 7 million cars each year.

**Did you know?** Food bought in restaurants has a wider footprint than food you buy to cook at home because of the 'overheads' in the restaurants – the emissions associated with heating, lighting and cooking for your meal. Food from takeaways has additional packaging and additional transport emissions, from the means of getting it from the restaurant to your home.



## WHAT CAN WE DO AS INDIVIDUALS TO REDUCE OUR CARBON FOOTPRINT?

### THE WORLD WILDLIFE FUND

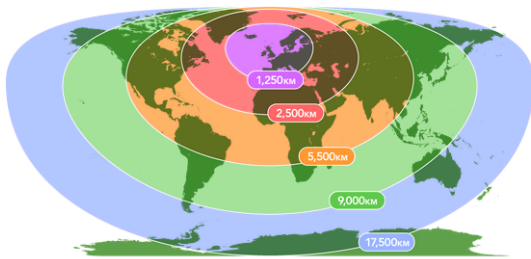
In a 2007 report entitled "The Ecological Footprint of British City Residents", WWF set out what individuals can do to reduce their carbon footprint:

- **measure your footprint** (<https://footprint.wwf.org.uk>) and set annual targets to reduce it;
- make your home as energy efficient as possible;
- campaign for a low carbon future;
- holiday closer to home;
- think before you spend;
- reduce your car use;
- eat a local, organic, seasonal, low meat diet;
- join others who are reducing their footprint (and encourage those who are not);
- make waste obsolete,
- be counted! Get on the electoral roll and vote for the environment.

### ZERO CARBON HARROGATE

Zero Carbon Harrogate's Top Ten Tips for reducing your carbon footprint are, in many ways, similar to the WWF ones:

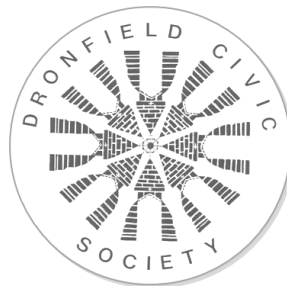
- **calculate your footprint;**
- switch to a renewable energy supplier;
- eat less red meat;
- insulate your home;
- turn the heating down two degrees;
- walk or bike instead of driving;
- take the bus or train;
- buy locally produced goods and food;
- make your garden green not grey;
- offset your residual carbon emissions.



**FLIGHT OFTEN REPRESENTS A SIGNIFICANT PART OF PEOPLE'S FOOTPRINT.**



**TRAVEL OFTEN REPRESENTS A SIGNIFICANT PART OF PEOPLE'S FOOTPRINT.**



## WHAT CAN DRONFIELD CIVIC SOCIETY DO TO ENCOURAGE A LOW CARBON FUTURE IN THE TOWN?

- raise awareness of the issues with our members and encourage them to take action to reduce their carbon footprints;
- lobby local councils and pressure them to include environmental protection measures in their policies and to implement them;
- urge NEDDC, the local planning authority, to ensure that new developments conform to the highest standards for energy efficiency, rainwater harvesting and re-use, surface water management and wildlife protection. New developments should also use sustainable building materials and include solar panels and electric vehicle charge points;
- monitor planning applications to ensure that new developments are sustainable, reduce car dependency and encourage the use of public transport;
- support other organisations in Dronfield, like Sustainable Dronfield, with similar aims and who are already committed to sustainability goals and work in partnership with them;
- consider the climate change credentials of organisations seeking funding from the Society;
- support and encourage the planting of native tree species for urban greening within the town, discourage the unnecessary loss of trees and encourage replacement planting where loss is unavoidable.
- Prioritise the funding of projects that encourage environmentally friendly initiatives and the protection of the local environment.