

BY BROOK SUSTAINABILITY CALENDAR - JANUARY - CARBON

Welcome to the January edition of the By Brook Sustainability Calendar, a new initiative to encourage local people to live in harmony with our planet. Each month we'll tackle a different topic, covering facts, innovations, tips and advice. In short, we hope to inform on a global basis and inspire action locally.

Why start with Carbon?

Carbon is the fourth most abundant element in the universe after hydrogen, helium, and oxygen. Through its ability to form organic compounds, it is one of the key building blocks of life.

Our planet has a natural carbon cycle, with carbon emitted into the atmosphere, and carbon removed from it.

But human activity, especially the burning of fossil fuels and land use changes such as deforestation, has disrupted this cycle (see diagram), meaning more carbon dioxide (CO₂) is created than the planet can absorb.

The concentration of CO₂ in the atmosphere has increased from around 278 parts per million (ppm) in 1800 to around 418 ppm today. This increase in CO₂ is causing our planet to warm – that's why it's called a greenhouse gas – and this global warming causes climate change.

The planet has warmed by 1.2 degrees C since 1880 which has increased the number and intensity of severe weather events, including heatwaves, droughts, storms and floods.

UN Secretary General Antonio Gutierrez famously described last August's International Panel on Climate Change (IPCC) report as 'Code Red for Humanity', stating "If we combine forces now, we can avert climate catastrophe. But there is no time for delay and no room for excuses."

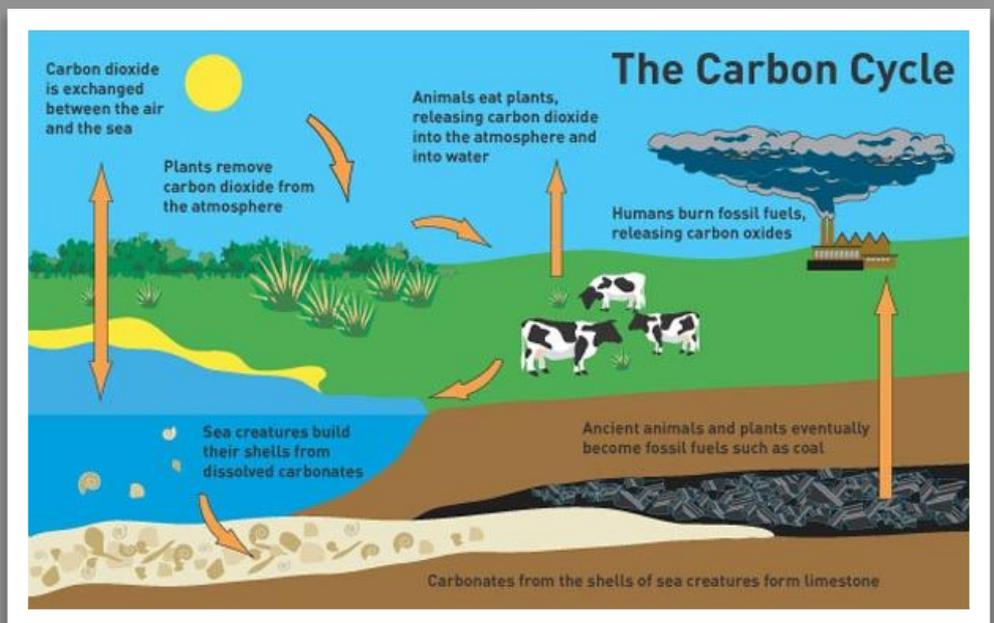
What was COP 26 about?

The 26th UN Climate Change Conference of the Parties (COP 26) was held in Glasgow last November. COP 26 was described by US climate envoy John Kerry as "the last best chance" to avert the worst environmental consequences for the world.

Whilst some progress was made, the assessment is that pledges made will only limit temperature increases to 2.4C, well above the 1.5C agreed as the maximum to avoid climate catastrophe.

The five main agreements were on;

- * Phasing out fossil fuels
- * Speeding up affordable green technology
- * Supporting poor countries
- * Reversing deforestation
- * Cutting methane emissions



What action is required?

Here in the UK, the Climate Change Act commits the UK Government to achieve Net Zero emissions by 2050. Net Zero means a balance between the carbon emitted into the atmosphere, and the carbon removed from it, thereby restoring balance to the earth's natural carbon cycle.

This requires massive changes to every aspect of society. We need to move away from fossil fuels (eg, burning oil) to renewable power sources (eg, solar). We also need to cut our energy use by reducing consumption and activities such as travel. In addition, we will also need to capture carbon and remove it from the carbon cycle.

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Is there any good news?

Yes! We're in trouble, but talent around the world is focused on solutions - some based on technology, and many nature-based. Here are some to get super-excited about:

Solar power prices have fallen by around 90% since 2009, while wind turbine prices have fallen by 55% since 2010 - and they're expected to fall further. www.irena.org/costs

Capital committed to Net Zero solutions is now at over \$130 trillion, up from \$5 trillion in 2019 - but how credible is this? www.gfanzero.com

Zero-carbon lime can be used to remove billions of tonnes of CO2 from the atmosphere - what a claim! www.origencarbonsolutions.com

Making the earth green again, by stopping and reversing desertification and soil degradation - giving nature a chance to work its magic. www.desertcontrol.com

An increase in electric vehicles – listen to this informative and highly entertaining podcast on all things electric www.fullycharged.show

A local gem: Beavers – nature's great engineers – are back on the River Avon reducing flooding and increasing carbon stores - very close to the By Brook! www.beavertrust.org



A Desert Control Project In Dubai

So what comes next?

Prospects may seem bleak, but let's flip this terrible problem on its head and get excited about what the future might look like. Every problem presents an opportunity!

If we re-engineer our society and systems to reach Net Zero, we can;

- get nature flourishing again
- reduce pollution
- give ourselves happier and healthier lifestyles
- regenerate our villages, towns and cities
- reduce inequality and division

To do all this we need to demand, deliver and then embrace the required changes. Let's make Planet Earth great again!

What can we do right now?

Our future editions will provide plenty of ideas for action, but for now we recommend you go to the Carbon Savvy website, to understand how you create carbon emissions, assess your personal impact, and sign up for tips and advice. www.carbonsavvy.uk

This month's sponsor Mitchell and Dickinson can help you reduce your carbon impact whilst improving the comfort of your home and reducing your energy bill, through their unique secondary glazing system crafted for period homes.

www.mitchellanddickinson.co.uk

Next month we will provide ideas as to how to make your Money and Investments do good.

If you have ideas or comments, do contact us at mike@vertigosdc.com

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