

Sustainability Pathway 2024 January – Benchmarking

Topic Introduction

We'll cut to the chase – the first instalment of the Sustainability Pathway series isn't going to transform your environmental impact overnight. It will, however, show you where you could make the most meaningful changes over the coming year and where you are already doing pretty well.

The Scottish mathematician and physicist Lord Kelvin (1824—1907) said “*When you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind.*” Years later, the famous management consultant Peter Drucker was reputed to have put this more snappily – “*What gets measured gets managed*” – although the Drucker Institute vehemently denies that he ever said this!

Sustainability is a challengingly broad topic, and even with continuous media coverage of the current climate emergency it can be hard to know where to begin with understanding the issues, let alone changing our behaviours to improve sustainability. A good place to start would be to take the advice of Lord Kelvin and Peter Drucker and try to measure the problem – and hopefully, in doing so, to make our knowledge less meagre and unsatisfactory!

While sustainability is a much wider concept than simply reducing energy usage, this is a good place to start. Energy usage isn't just about what you see on the electricity or gas meter – as well as the energy that you use directly by turning lights or heating systems on, there is also the energy that other people use on your behalf (e.g. delivery drivers' fuel or the electricity to run the servers that supply us with websites, email and video-on-demand) as well as the energy taken to make the items that we buy (extracting and refining raw materials, manufacturing the finished product, packing and warehousing etc.) and even the energy required to take things away once we have finished with them. The energy used in all of these stages is expressed in terms of the amount of planet-warming gasses emitted to generate that energy. Carbon dioxide (CO₂) is the best known of these but there are many other gasses, and to simplify this so it can be boiled down to a single figure, these other gasses are expressed in terms of the amount of CO₂ that would cause the equivalent amount of global warming – or a “CO₂ equivalent”, written “CO₂e” and usually measured in kilograms or tonnes. As CO₂e is a bit of a mouthful, people tend to refer to this simply as “carbon” (much to the annoyance of scientific purists!) hence creating terms such as “carbon reduction” and “zero carbon.”

The energy used in the stages above can be categorised as either:

- “embodied carbon” i.e. the energy associated with making something
- “operational carbon” i.e. the energy associated with using something.

The budding accountants amongst you might have spotted that these are very similar to the financial concepts of “capital expenditure” and “operational expenditure” and this is a useful comparison. A cheap car that costs a fortune to run is no bargain, and likewise, a product with minimal embodied carbon that emits a large amount of operational carbon over its lifetime is hardly sustainable. **When choosing what to buy, it is important to weigh up the contribution of both the embodied and operational carbon, based on how you plan to use the item.** Sometime this gives unexpected results – for example, I've made a decision not to prioritise changing my petrol car for an electric car as the unusually low mileage I do every year means that it would take over four years for the saving in operational carbon to outweigh the embodied carbon – for someone who racks up a more typical annual mileage that figure would be closer to two years. (Of course there are other sustainability benefits to electric vehicles as well as saving energy, such as not releasing toxic gasses and particulates in built-up areas!)

To simplify analysis, there are tools to help us understand how much carbon we're causing to be emitted in the various areas of our lives – these help us generate our own “carbon footprint”. These tools ranging from some that ask a tiny number of superficial questions and produce generic, uninspiring results, to those that ask a terrifying number of detailed questions requiring the user to research this, measure that and probably lose heart before they ever get close to producing any results! Fortunately there are also some carbon footprint tools in the sensible middle of this range, where the effort required is manageable and the accuracy of the results is useful, even if not 100% accurate. So long as the results can illuminate where it is worth concentrating efforts on making improvements, that's accurate enough to be useful.

What can we do?

We will start the Sustainability Pathway by measuring your carbon footprint with a tool developed by the World Wildlife Fund. This can be accessed at <https://footprint.wwf.org.uk/>

- Click “Take the questionnaire” – you'll then be asked a series of questions on:
 - how often you eat meat
 - how much you spend eating out
 - your food waste
 - where your food comes from
 - your usual vehicle
 - your train, bus and plane use
 - your type of house
 - how you heat your home and your energy tariff
 - your buying habits, pets and recycling habits.

This takes about 5-10 minutes to complete – it's worth taking the time to make sure that you've read the questions properly.

- At the end of the questionnaire, you'll be shown for your annual carbon footprint measured in tonnes of CO₂e.
 - This will be compared to the UK average (9.3 tonnes in 2023), the world average (6.3 tonnes), and (if you enter the first part of your postcode) with your area – MK40 postcodes currently average 12.1 tonnes CO₂e while MK41 postcodes average 11.1 tonnes CO₂e.
 - This result is then broken down into categories of “home”, “food”, “travel” and “stuff”. For each of these there are suggestions as to what you can do to reduce this component of your footprint; while these are worthy suggestions, they don't seem to be affected by the answers that you gave to the questionnaire! In my case, food is the biggest contributor to my carbon footprint, and hence this is where I'd get the greatest value from making changes.
 - Note that the carbon footprint total includes a “Government allowance” of 2.35 tonnes of CO₂e per person. This accounts for the government's consumption of carbon on your behalf (e.g. building and maintaining roads and public buildings, education, defence, health.)
- Spend a few minutes considering whether you feel the breakdown you've been shown fits your expectations of what your carbon footprint would look like. It's easy to criticise a short questionnaire like this – for example there was no question that allowed me to include the long ferry journey that I'm taking next week (so the travel component of my footprint is probably over-optimistic) and it didn't ask about typical portion size (I'm above average in this department!) As mentioned earlier, this short questionnaire isn't absolutely accurate but it's good enough to point users in the right direction.
- Have a think about what you could do to reduce your carbon footprint, and maybe retry the questionnaire with different answers to see what the impact of these potential changes might be.
- Feel free to share your results, your thoughts on the results and what you might wish to do about the results to the extent that you are comfortable doing so.
 - There's an option on the website to share your results by Twitter, Facebook, WhatsApp or email, for those who are so inclined. The message that it would send simply says “*I just calculated my carbon footprint and I'm using xx% of my share vs the UK target. Find out*”

your score with @wwf_uk's footprint calculator: <https://footprint.wwf.org.uk>
#FightForYourWorld.” There’s minimal detail in this text but it’s a good way of encouraging others in your social circle to consider their carbon footprints too!

- Think about those new year resolutions again – over the course of this year, why not resolve to:
 - reduce your carbon footprint – choose something achievable in your particular circumstances. At the end of the year we’ll measure it again so you can see your progress and maybe consider more actions to make a further reduction in 2025!
 - learn a bit more about how carbon is emitted and measured so you can make better-informed choices in everyday life.

Over the course of this year, we will introduce a range of topics that will assist you with making a real impact on your sustainability.

Finally, please remember that sustainability isn’t just about hard-nosed measurement and hitting targets. It’s just as much about being more aware of the factors that contribute to emissions, pollution and material usage and their relative importance, so people can make better real-time decisions that will help them tread more lightly on our precious planet.

What’s coming up this month?

- **Discussion:** Those interested are invited to an informal discussion of this month’s topic during post-service refreshments on Sunday 21st January at 1115-1215 in the corner of the hall. Please come along and share your questions and your experience of and issues encountered investigating your carbon footprints – we promise there will be no league tables and you can share as much or as little as you wish about what you have learned!
- **Resolutions!** If you’re the type of person who makes New Year’s Resolutions (no judgement intended – some people find this more helpful than others!) we hope that you’ve made a resolution about finding out more about sustainability and making some pragmatic changes to what you do to improve your own sustainability and the sustainability of groups and organisations in which you are involved.
 - Are you ready to talk about this when the conversation at work, school etc drifts towards this year’s resolutions?
- **Futurebuild:** this is an exhibition of new construction technologies, with a strong bias toward improving sustainability of the build environment, with a conference running within the exhibition. While primarily a trade show, there’s nothing to stop people with sufficient interest attending in a personal capacity (or in some cases it might be relevant to your work or other involvements.) Last year a small delegation from the St. Andrew’s Creation Care team attended and collected some valuable information on products and techniques to improve sustainability which has helped to guide our ongoing path towards Carbon NetZero. This year Futurebuild will be held between 5-7 March at the ExCeL Centre in London; online registration is free. <https://www.futurebuild.co.uk/>