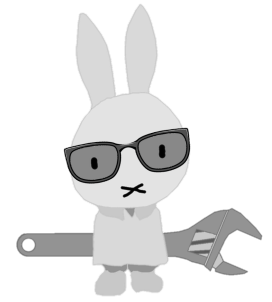


# Fuel Poverty, the Cost of Living Crisis, and Climate Change: A Data Blog

Finding solutions to immediate problems and our future needs requires some difficult decisions, and if not thought-out, short-term thinking might create contradictory responses.



Paul Mobbs, *The 'Meta-Blog'*, issue no.19, 1<sup>st</sup> February 2022

**Though often depoliticised by compartmentalising different problems, across society decisions on energy and the environment are innately tied to lifestyle and consumption. In looking at how we adapt to energy crises, or climate change, we have to focus on what relatively creates the greatest impact – nationally and globally.**

There's a big fuss at the moment about a ['cost of living crisis'](#)<sup>1</sup>, and with it the expanding spectre of [fuel poverty](#)<sup>2</sup>. It's not possible to talk about either without connecting to energy and climate change. More importantly, this debate has traditionally ignored the 'injustice' behind the thoroughly unequal levels of consumption in Britain, and the world, and the deep connections this that has to both poverty and climate change.

## Champagne, anyone?

There's a graph I love to throw at people – called the '*Champagne Glass Graph*'. It was first outlined in the United Nation's [Human Development Report](#)<sup>3</sup> in 1992. That work was updated in 2015 by Oxfam, as part of their '[Extreme Carbon Inequality](#)'<sup>4</sup> report.

The United Nations, because it is made-up of nation states, is fixated by the 'nation state'. But if you get rid of national boundaries, and just look at the lifestyle consumption of individuals, a clear trend emerges: Half of the carbon dioxide emissions are caused by just ten percent of the global population; and the bottom fifty percent of the global population only emit ten percent of the emissions.

In all the discussion about climate change, how often do you see this reality discussed? How often do you hear the people proposing to cut the egregious consumption of about 800 million people on the planet, so that the other 7 billion can have a chance of a future life?

Tackling inequality represents the fastest and most effective means to cut global carbon emissions quickly, and free-up resources for those who are in desperate need without expanding the global human footprint. Unfortunately, it's not a discussion that the mainstream media of the affluent 'Global North' like to give time to.

## How low can you go?

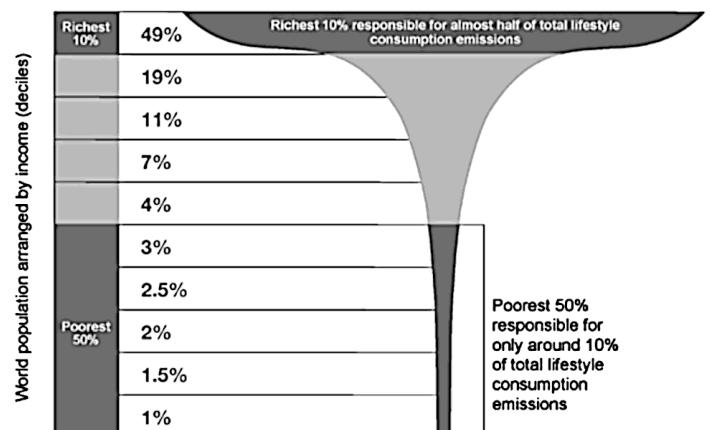
There are many research studies that project the contraction in consumption required to meet ecological limits. Many environmental pundits will [obliquely refer to this idea](#)<sup>5</sup>, but rarely do they interrogate the full detail in public – and what that would mean both for their own lives, and the other affluent citizens of the world's industrialised states.

A good place to start is the paper by [Millward-Hopkins et al.](#)<sup>6</sup> from '*Global Environmental Change*', published in 2020. From the beginning, they don't try to hide the facts:

*"It is increasingly clear that averting ecological breakdown will require drastic changes to contemporary human society and the global economy embedded within it."*

*'The Champagne Glass' from Oxfam's 2015 'Extreme Carbon Inequality' report*

Percentage of CO<sub>2</sub> emissions by world population



The study tries to find a path through the limitations of climate change and resource depletion on one side, and justice and fairness on the other. It takes known, available technologies, and how they might be deployed globally, and then finds how much we have to reduce the present level of consumption to reach sustainable levels.

It looks at what constitutes our 'essential needs' – for everyone on the planet – and then finds ways to create the energy to support that. That's not just food and shelter. It also includes transport, education, health care, and other 'advanced' services we regard as a basic measure for human well-being. They found this requires 13 giga-Joules (GJ) to 18GJ per person per year.

As [energy use correlates roughly](#)<sup>7</sup> to income, one of the easiest ways to look at this is in terms of annual income: Those living on the globally comparable equivalent of less than \$6,000 dollars a year don't use that energy much already – and so can have more; when you get to the equivalent of \$15,000 per year, those people are already 2 to 15 times the 'minimum' level; needless to say, this doesn't look good for the world's most affluent states, where individuals can easily consume 200 times the 'minimum'.

As the study states:

*“We find that, with a combination of the most efficient technologies available and radical demand-side transformations... the final energy requirements for providing decent living standards to the global population in 2050 could be over 60% lower than consumption today. In countries that are today's highest per-capita consumers, cuts of ~95% appear possible while still providing decent living standards to all.”*

Oh my God! A 95% cut in consumption! Surely that takes us back to the Stone Age?!

No. They suggest a lifestyle similar to consumption levels in the 1960s. The level of energy growth in the second half of the Twentieth Century was so steep, and the change in technological efficiency so great, that you don't have to go back very far to make an appreciable cut in energy consumption.

Actually, back in 2005, I had a book published called [‘Energy Beyond Oil’](#)<sup>8</sup>. It was subtitled, “Can you cut your energy consumption by 60%”, and made a similar argument.

How did I project that figure almost two decades before this study? A lot of this is just basic physics, and understanding the thermodynamics of human systems. No matter how you cut the energy cake, the total amount we can have, and how it is shared out, doesn't change that much with time.

## How big is your footprint?

Let's narrow the focus – to bring those inequalities nearer to home.

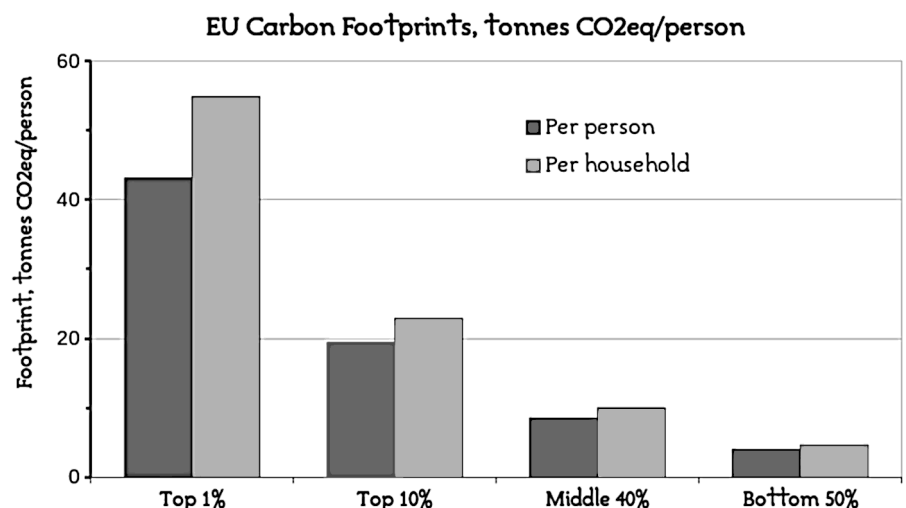
A study published in ‘Global Sustainability’ by [Ivanova and Wood](#)<sup>9</sup>, also in 2020, collected data to show how affluence across the globally affluent continent of Europe varies massively. It noted:

*“We need a good understanding of household carbon distributions in order to design equitable carbon policy... The top 10% of the population with the highest carbon footprints per capita account for 27% of the EU carbon footprint, a higher contribution to that of the bottom 50% of the population.”*

The graph below shows the distribution of household footprints in the EU, sorted by wealth. It's that pattern from the ‘Champagne Glass’ graph again: Even in globally affluent Europe, it's the rich who are by far the most significant problem, producing by far the most emissions per person.

The study concluded:

*“The EU has committed to an action programme towards a good life for all within the planetary boundaries... In our analysis of the carbon footprint*



(CF) of European households using household-level consumption data, we find significant inequality in the distribution of CFs. The top 10% of the EU population with the highest CFs contribute more carbon compared to the 50% of the EU population with the lowest CFs. Only 5% of the EU households live within a CF target of 2.5 tCO<sub>2eq</sub>/cap, while the top 1% of EU households have CFs of 55 tCO<sub>2eq</sub>/cap. The households with the highest CFs are by and large the households with the highest levels of income and expenditure.”

The Millward-Hopkins study said we needed to cut consumption by 60%. To meet the EU's 2.5 tonne target, the 'middle 40%' have to cut by about 75%. The 'bottom 50%' need only cut by about half. The 'top 10%', though, must cut 95%.

If you are in the bottom 50%, then, it is entirely possible that 'green' actions might reduce your impact by the level required. Those actions only create small changes in impact, but it is entirely possible they might create the 50% cut required.

If you're in that 'middle 40%', though, only radical lifestyle change can do that. That's because efficiency, or changing energy sources, can only deliver a minimal cut – and certainly not the 75% cut required.

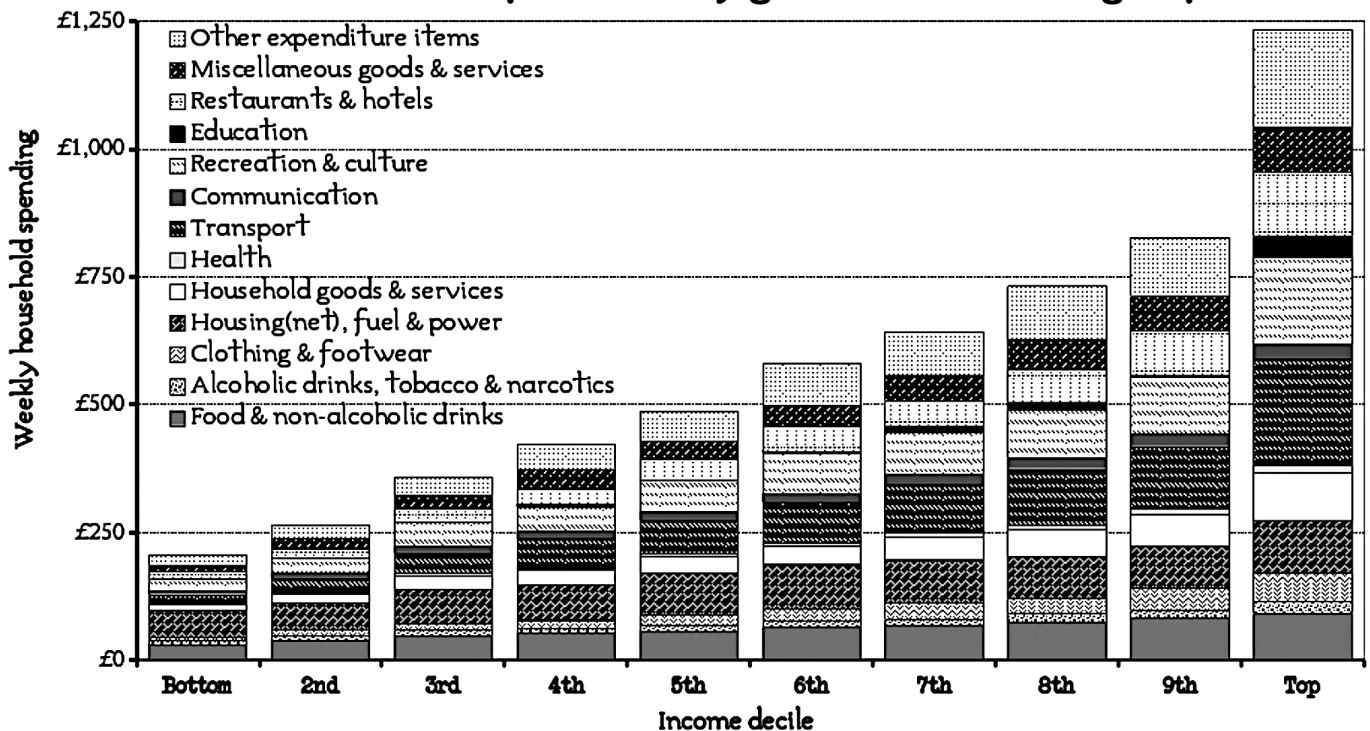
This should illustrate clearly that, although the level of reductions required to reduce consumption or prevent climate breakdown might seem massive overall, when you do the sums, globally only a small group are really badly affected: The affluent ones. The problem is, though, this is the group with all the wealth and political power – which is precisely why there has been no progress on tackling climate change after 30 years of summits, and why the latest COP26 summit in Glasgow was a failure.

### 'Carbon Inequality = Income Inequality'

To make this a more realistic comparison let's look just at Britain. The graph below, using recent [Office for National Statistics \(ONS\) data](#)<sup>10</sup>, shows the expenditure on different parts of the consumer lifestyle by different income groups. Each column contains the same number of households; what divides them is the rising level of income in each household.

Let's be clear here: Even the poorest 10% of British society would see a small reduction to their level of consumption. That's because, globally, even the poorest British household has and consumes more than households in poorer countries around the world. But again, most of the standard 'green' measures could achieve that.

Household expenditure by gross income decile group



The next three columns – the second to fourth deciles – are going to have to make some significant changes to their lifestyle; cutting consumption by a third to a half. A good proportion of that is still within the boundary of technological change.

The five columns after that – the fifth to ninth deciles – need to cut by 75%. This produces about the same level of consumption as the bottom 50%, around £174/week. But that cut represents a complete up-ending of their way of life because it moves beyond the limits of technological change alone. In effect, the middle class will have to live like the ‘average’ poor family in Britain.

The remaining top 10%? They have to cut by around 90%, which in terms of today’s perceptions we might describe as “catastrophic”. But the fact is, without that, all that cutting emissions proportionately would do in drive more people into absolute poverty, while exaggerating the wealth gap even further.

That, however, is the entire point...

### Why is there no action on climate change?

One of the reasons the COP26 conference failed was that rich countries tried to insulate themselves from the inevitable hard changes required to adapt to climate change. Likewise, poorer countries saw no point in selling such a difficult message to their own – poorer – populations, given that the rich nations were unwilling to commit to such radical change.

**The idea of a frugal, minimal lifestyle – such as the poorer people in Britain have been forced to live under as a result of long-standing structural economic policies – is the only real option for the most affluent states to sufficiently cut emissions within the time-scale required. That’s the storyline environmentalists should be promoting – or better still, not waiting for governments and actually doing it themselves. And in terms of the conundrum of fuel poverty, the cost of living crisis, and climate change, only a clear [focus on equalising consumption](#)<sup>18</sup> – spreading the impacts not just across nation states, but globally – can create the conditions where the majority of the population can have confidence that the ‘costs’ of climate adaptation are being borne equally by all.**

The material implications of [not just climate change](#)<sup>11</sup>, but also [resource depletion and pollution](#)<sup>12</sup>, require drastic cuts in consumption. That cannot happen without a sense of equity both between and within nations. This requires the most affluent to take the greater hit to their lifestyle.

At some point [we have to call ‘bullshit’](#)<sup>13</sup> on the mainstream debate over climate change in the most affluent countries. It not only bears no relationship to the data on individual impacts, but also neglects the most important factor that will dominate people’s future – [‘technology cannot save you’](#)<sup>14</sup>.

Yes, we can do lots of things to make devices more efficient, or reduce energy consumption; but when the consumption of a small minority massively outweighs that of people living just a few streets away, someone has to say truthfully that the solution to this lies beyond technology. To use a ‘conservative’ mantra, “the polluter must pay”.

Mass consumption, as it has been known by a globally affluent minority for the last century, has been [a ‘temporal illusion’](#)<sup>15</sup>. It was only made possible for a minuscule moment of human history, not only because of fossil fuels, and technological change, but significantly, to use a very unfashionable term, [‘resource imperialism’](#)<sup>16</sup>.

The reality is that period of time [is ending rapidly](#)<sup>17</sup>; and there’s nothing that can be done to avoid that. Arguably, the rise of fuel poverty, and the cost of living crisis, are a palpable sign that for the less affluent of the most developed nations, that period has already ended.

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