Revealed: the huge climate impact of the middle classes

Carbon emissions of richest 10% are up to 40 times bigger than poorest, and ignoring divide may make ending climate crisis impossible, experts say

- **The great carbon divide: charting a climate chasm**

Damian Carrington *Environment editor*
@dpcarrington
Mon 20 Nov 2023 16.03 GMT

- Illustration: Guardian Design
-

The richest 10% of people in many countries cause up to 40 times more climate-heating carbon emissions than the poorest 10% of their fellow citizens, according to data obtained by the Guardian.

Failing to account for this huge divide when making policies to cut emissions can cause a backlash over the affordability of climate action, experts say.

The world's richest 10% encompasses most of the middle classes in developed countries – anyone paid more than about $40,000 (£32,000) a year. The lavish

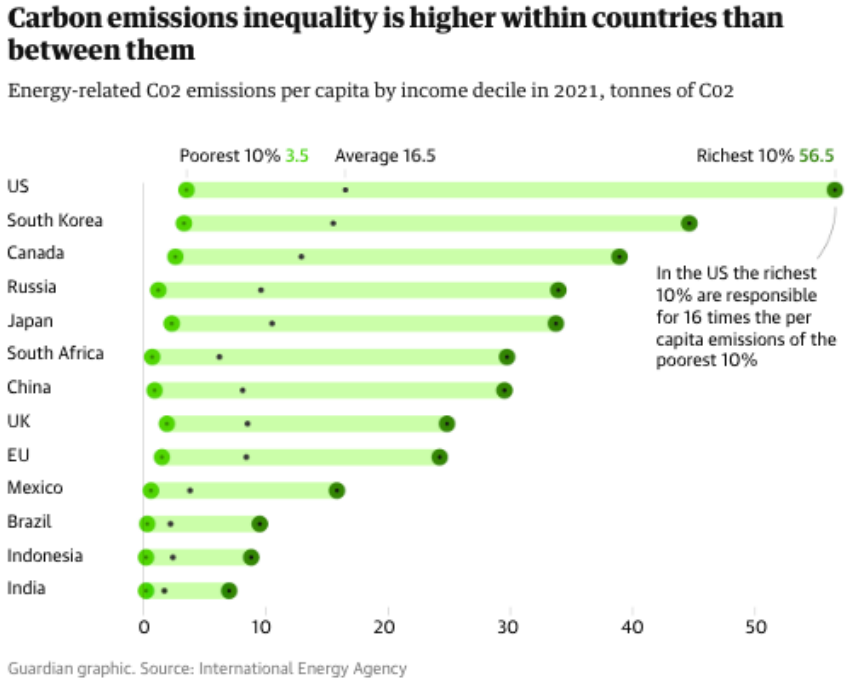
lifestyles of the very rich – the 1% – attract attention. But the 10% are responsible for half of all global emissions, making them key to ending the climate crisis.

The Cop28 UN climate summit begins on 30 November, at a time when the window to salvage a livable future for humanity is rapidly closing.

When climate negotiations began in the 1990s, most of the inequality in people's carbon emissions was between rich and poor nations. Three decades on, the situation has reversed. Now, most of the inequality in emissions between the rich and poor exists within individual countries.

This shift has enormous implications for how the climate crisis can be ended, researchers say, although international support for the poorest and least polluting nations remains vital.

Data from the International Energy Agency (IEA) details the energy-related CO2 emissions per person in 2021 in a dozen major countries, plus the 27-nation EU. In the US, UK, EU and Japan, the richest 10% have carbon footprints about 15 times greater than the poorest 10%. In China, South Africa, Brazil and India, the top 10% cause 30-40 times more emissions than the bottom 10%.



In all cases, the emissions of the top 10% are as high as those of at least the bottom 50%. In the US and China the situation is even less equal: the emissions

of the top 10% are higher than the bottom 70% combined. South Africa is the most extreme example, with the footprint of the top 10% as large as that of the remaining 90%.

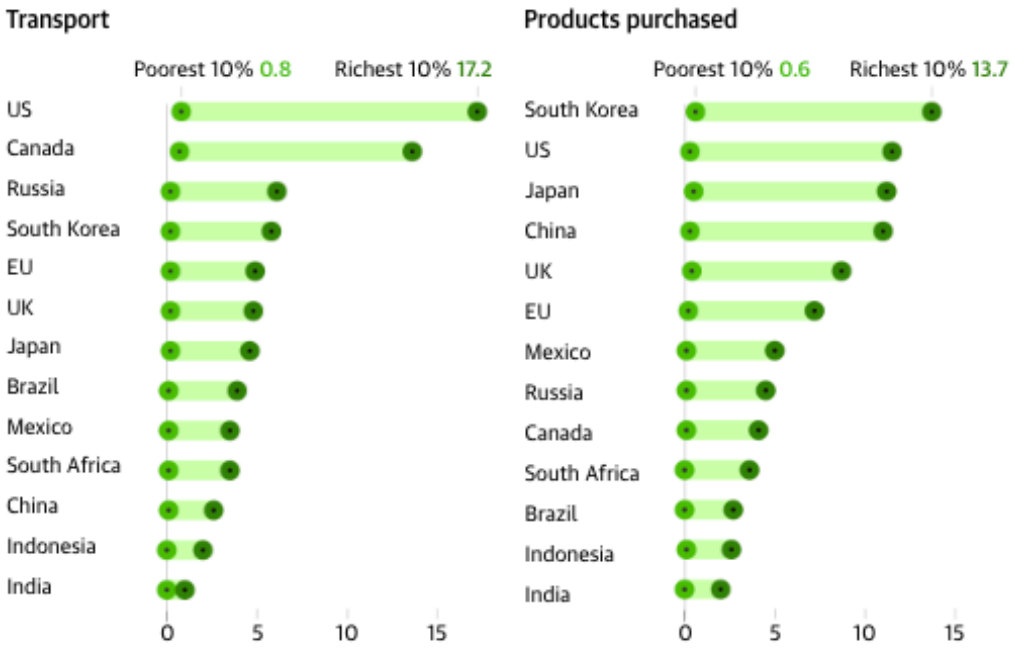
Transport, especially car use, is a major factor in the sky-high emissions of the richest 10%, with these emissions 20-40 times higher than the transport emissions of the poorest 10% in the countries analysed.

In the US and Canada, road transport makes up about a third of the footprint of the top 10%. The transport emissions of the richest 10% are the same as the transport footprint of the bottom 70% of the population in those countries.

Another major factor is the emissions embodied in the goods that people buy, such as furniture and electronics. These are 20-50 times higher for the richest 10%, and make up about a third of emissions in most countries.

Transport and bought products are the key reasons for the great carbon divide

Energy-related C02 emissions per capita by income decile in 2021, tonnes of C02



Guardian graphic. Source: International Energy Agency

In South Korea, the top 10% cause 14 tonnes of CO2 per person annually from buying goods, double the per-capita figure for the next richest 10% within the country.

In poorer countries, including India and Indonesia, the poorest 10% essentially have no emissions at all from road travel and buying products.

“If you just focus on the average, you’re missing a big part of the problem and you might also miss the right policy,” said Dr Lucas Chancel, a co-director of the World Inequality Lab at the Paris School of Economics, whose team have tracked the rise of carbon inequality within countries.

He said that if, for example, a government levied an emissions tax across the population instead of focusing on the high-emitting wealthy, it would miss a big part of the emissions reductions it could achieve.

“In the global north, when you don’t factor in emissions inequality, you can end up with ‘yellow vests’ protest situations,” Chancel said, referring to tax rises on diesel in France in 2018 that prompted mass demonstrations of the “*gilets jaunes*”.

“There were a lot of households that overall emitted relatively little, but their transport emissions were quite high because they live in rural places and they had no other option than to use the car,” Chancel said. “So the carbon tax just meant they had less disposable income – it did not reduce their emissions – and there was a backlash.

“The good news is that there are many ways to avoid that kind of deadlock,” Chancel said, citing the example of Canada’s carbon tax. “They use a big chunk of the revenues to compensate potential losers.”

Sticks and carrots

Carbon inequality between countries accounted for two-thirds of all carbon inequality in 1990, but now two-thirds of carbon inequality occurs within nations. This is because emissions in rapidly developing nations, such as China, have approached those in rich nations in recent decades, narrowing the difference between nations. The other key factor, Chancel said, was rising income inequality, particularly in the global south.

“It’s very important to stress that big gaps between countries still remain. But on top of this you now also have a lot of within-country inequality,” he said.

The IEA data shows that the poorest 10% in the US still have a footprint bigger than 90% of those in India.

Globally, the top 10% by income totals 770 million people, with almost two-thirds in high-income countries, according to a report from the Stockholm Environment Institute and Oxfam.

Within the UK, the top 10% are those paid more than £59,000.

Gilets jaunes protesters in Rochefort, France, in November 2018. Photograph: Xavier Leoty/ AFP/Getty Images

Ruth Townend, a research fellow at the Chatham House thinktank in the UK, said: “Without paying attention to inequality in policymaking, it will be impossible to have a just transition to a more sustainable society.”

She said a blanket approach by governments to shift to green lifestyles unfairly disadvantaged the poorest in society and undermined trust. “Policy sticks, such as taxation, should only be used to target those who have capacity to make cuts, ie those who are better off, whereas policy carrots, such as subsidies and support for lifestyle change, are needed for those who are unfairly burdened at the moment by rising fuel and food prices.”

Townend said the rich had the resources to change their high-carbon lifestyles without damaging their wellbeing, and supporting that shift among the wealthy could also help make greener lifestyles more aspirational.

Growth in millionaires

Tackling the high emissions of the rich takes on even more significance when looking to the future. A recent study found that the number of people with $1m in wealth – mostly the value of their homes – appeared likely to rise from about 52 million in 2020 to 511 million in 2050, taking inflation into account.

Restaurants, pets and holidays: how UK's well-off have outsize carbon footprints

The researchers estimated that the projected growth in millionaires, from 0.7% of the global population to 3.3%, would result in accumulated emissions of 286bn tonnes of CO2, about 70% of the emissions budget remaining in 2021 if global heating was to be kept to 1.5C above pre-industrial levels. A more recent estimate of the carbon budget was 250bn tonnes, suggesting the growth in millionaires alone could wipe it out completely.

"I think it is significant that such a small share of humanity will consume so much of the remaining carbon budget," said Prof Stefan Gössling, of Linnaeus University in Sweden, who led the study. "It will not be enough to just impose taxes on carbon, as the rich can essentially afford to pay the extra amount, while poor people would be more affected."

Chancel, in a recent report, noted that a "relatively modest" progressive wealth tax of 1.5% on people with $100m or more in assets – 0.001% of the global population – would raise $295bn a year. That is a similar amount to what is

needed to protect the world's people from the growing impacts of the climate crisis.

An international taxation taskforce is due to launch at Cop28 to push for new climate levies and will consider taxes on wealth, fossil fuels, shipping, aviation and financial transactions.

Townend said: "Rich lifestyles can change to reduce emissions without damaging wellbeing. What matters most to people is our relationships with others and our ability to be social, and those things aren't carbon intensive to enjoy or maintain."