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# Who should be responsible for emissions reductions?

Carbon taxes disproportionally hit the poor — both in the Global North and South. Instead, climate policies should tackle the consumption of the rich

It should be obvious: natural processes — and the 'anthropocene' effects on them — do not observe national boundaries. The atmosphere and the oceans do not rely on visas to cross borders, and the impact of climate change and the degradation of nature spread across locations.

Despite this, strategies to address climate change remain fundamentally national, even in international fora. The 'climate responsibility' of different countries forms the basis of negotiations and of national commitments to control greenhouse-gas emissions, as was most recently evident last November at the COP26 United Nations summit in Scotland.

## Historic responsibility for emissions

How is such climate responsibility determined? The standard method — going back to the UN Framework Convention on Climate Change agreed at the Earth Summit in Rio in 1992 — is based on carbon-dioxide-equivalent emissions generated by productive activity within national boundaries. Yet this ignores two major aspects: the historical $CO_2$ 'debt' and the ability of rich countries, in particular, to 'export' their emissions.

Consider first that debt. According to Climate Watch, today's developed countries are responsible for nearly 80 per cent of all human-related $CO_2$ emissions between 1850 and 2011. The climate impacts which confront the world are a result of over-exploitation and abuse of the planet by a small group of now-rich countries, which together account for only around 14 per cent of the current global population. Furthermore, more than half of these historical emissions occurred in the last 30 years — though climate change had become increasingly evident and widely accepted, and the technologies for mitigation had developed significantly.

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Clearly, rich countries could have done more to avert the crisis we now face. Meanwhile, the effects of climate change are being felt disproportionately by low- and middle-income countries. They are however less able to deal with the consequences, because of lower *per capita* incomes, less 'fiscal space' and less-favourable access to international capital markets.

The net-zero commitments made by some rich countries do not explicitly mention this vast negative impact of their past growth trajectories. If the climate debt they have incurred were to be incorporated, a major revamp of their proposals would be needed. For example, it has been estimated that the United States' fair share of the global mitigation effort by 2030 would require an emissions reduction to nearly half the 2005 level.

The advanced economies have however refused to discuss historical responsibility and climate debt, negotiating only over current and future emissions. Their own commitments assume that they will continue to grab most of the remaining global 'carbon budget' for the next three decades. This crucial point is often missed even by well-meaning climate activists in the global north.

In terms of production, the three largest emitters of $CO_2$ today — accounting for more than half the global total — are China, the US, and India. China and India have dramatically increased their emissions, especially since the turn of the century, while most advanced economies have exhibited lower increases and, in some cases, slight declines. This allowed much finger-pointing at China and India at COP26.

But in *per capita* terms the advanced economies still remain by far the greatest emitters. The US and Australia emit eight times as much $CO_2$ per head as low- and middle-income countries such as India, Indonesia, and Brazil, which are nevertheless castigated for allowing emissions to rise. Even China, despite recent increases, still emits less than half as much, relative to its population, as the US.

## Exporting emissions

Then there is the role of global trade. By sourcing high-carbon products and services from other countries, nations can effectively 'export' their emissions. Shifting from direct emissions to 'indirect' emissions through cross-border trade means that the full emissions embodied in the consumption and investment of the rich countries are not counted.

Recent changes in trade patterns reflect how rich countries have complied with the infamous proposition by the former US Treasury secretary Larry Summers that they should export polluting industries to the developing world. Carbon-emitting industries and production processes have been added to that list.

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Emissions exported by members of the Organisation for Economic Co-operation and Development increased rapidly from 2002 (notably, after China joined the World Trade Organization) and peaked in 2006 at a negative carbon balance of 2,278 million metric tons (mmt), or 17 per cent of the OECD's production-based emissions. These have been declining but still remain at around 1,577 mmt annually. *Per capita* emissions according to final demand show even starker differences, with the US rate 12 times that of India, three times that of China.

National averages can themselves also be misleading — disguising significant inequalities within countries, determined by incomes, locations, and occupations, among other factors. According to the World Inequality Report 2022, global inequalities in emissions are now mainly due to *within*-country inequalities: they account for nearly two-thirds of global emissions inequality, having nearly doubled in share from slightly more than one third in 1990.

There are global high emitters in low- and middle-income countries and global low emitters in rich countries. Predictably, the richest decile in north America are the most extravagant in the world, with an average of 73 tonnes of emissions per head each year — that's 73 times the *per capita* emissions of the poorest half of the population of south and south-east Asia. The rich in east Asia are also very high emitters, though still significantly less than in north America.

## The 1 per cent pollutes more

The surprise, however, is the relatively low emissions of the bottom half in the rich regions. In Europe, the lowest emitting 50 per cent of the population emit around five tonnes per person per year, the bottom 50 per cent in north America around ten tonnes and the bottom 50 per cent in east Asia around three tonnes.

These relatively small carbon footprints contrast sharply with those of the top 10 per cent of emitters in their own countries, but also with emissions by the richest in relatively poor regions. The top decile in south and south-east Asia, for example, emit more than twice as much $CO_2$ as the bottom half of the population in Europe, and even the top decile in sub-Saharan Africa emit more than the poorest in Europe.

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What is more, growing inequality seems to have been driving up emissions overall. While the bottom half of income groups in the US and Europe reduced *per capita* emissions by 15-20 per cent between 1990 and 2019, the richest 1 per cent increased their emissions quite significantly, everywhere. Today, the richest 10 per cent of people on the planet are responsible for nearly half of all carbon emissions.

This suggests that climate policies should target wealthy polluters more. Yet instead, carbon taxes fall more heavily upon low- and middle-income groups and have relatively little impact on the consumption of the wealthiest — in rich and poor regions.

Clearly, the strategies to reduce carbon emissions need to start focusing on containing the consumption of the rich, within countries and globally. This requires a major shift in how climate-alleviation policies are conceived and implemented.

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