

It's wrong to blame 'overpopulation' for climate change

By Sarah Kaplan, climate and science writer, [Washington Post](#), May 25, 2021

When the Census Bureau released data recently showing that the United States population is growing at its slowest rate in almost a century, an old question reappeared in environmental reporters' inboxes: Do we need a smaller population to save our warming planet? The answer is: Not necessarily. Climate change isn't caused by population growth. It's caused by greenhouse gas emissions from burning fossil fuels.

"But," you might respond, "doesn't having more people on the planet lead to more fossil fuel consumption, which leads to more emissions?" Again, not necessarily, says Princeton University environmental engineer [Anu Ramaswami](#), an expert on sustainable cities and contributor to the United Nations' [Global Resources Outlook](#) reports.

A small minority of wealthy people [produce the majority of global greenhouse gas emissions](#) — their consumption habits have a much greater impact than overall population numbers. It's true that the planet can't support unlimited population growth, Ramaswami said. But if people can figure out how to moderate our consumption and meet our needs without fossil fuels, experts say, it is possible for all of us to live sustainably and well — even if there are more of us.

To measure humanity's collective mark on the planet, environmental scientists like Ramaswami use the "IPAT" equation: Impact = Population x Affluence x Technology. In this formula, affluence is defined as the gross domestic product per capita, and technology is a measure of the amount of resources required to produce a unit of GDP.

Since the start of the millennium, [UN reports show](#), global resource use has been primarily driven by increases in affluence, not the population. This is especially true in high- to upper-middle-income nations, which account for 78 percent of material consumption, despite having slower population growth rates than the rest of the world.

Meanwhile in low-income countries, whose share of the global population has almost doubled, demand for resources has stayed constant at just about 3 percent of the global total.

The "technology" portion of the IPAT formula is also moving in the wrong direction, Ramaswami said. Since 2000, the world has used more resources to make less stuff, largely because globalization has moved production to places where energy systems and machinery are less efficient.

[Another UN study](#) has found that inequality within and between countries makes them less effective at tackling climate change. A lack of social cohesion and the concentration of power in the hands of wealthy people — who are more insulated from climate change's worst impacts — makes nations less likely to take the kinds of collective actions needed, analysts found. In turn, the effects of warming disproportionately harm low-income communities, which makes inequality even worse.

These data suggest that stabilizing the climate depends on addressing the affluence and technology aspects of the IPAT equation, Ramaswami said. “Fixating on population decrease doesn’t make much of a difference.”

Treating people as the problem isn’t just misguided — it’s dangerous. When concern about population becomes central to environmental policy, said researcher Betsy Hartman, “racism and xenophobia are always waiting in the wings.” The former director of the population and development program at Hampshire College and author of 'Reproductive Rights and Wrongs: the Global Politics of Population Control', Hartman can cite countless examples of this link. Many founders of America’s conservation movement were [fervent eugenicists](#). Native American tribes were [forced from their lands](#) so the United States government could establish national parks. More recently, the alleged perpetrators of mass shootings at mosques in New Zealand and a Walmart in El Paso cited “[eco-fascist](#)” concerns about overpopulation and environmental degradation.

“In this ideology of ‘too many people’ it’s always certain people who are ‘too many,’ ” Hartman said. “It just shifts the discourse away from the real problem of who has power and how the economy is organized.”

James, who posed the question at the beginning of this piece, is correct when he wrote that lifestyle changes can’t mitigate a person’s entire environmental impact. We all need to eat. We all need homes that are warm in the winter and cool in the summer. We all live in a world that generates most of its electricity, food and consumer goods with fossil fuels. There is no opting out of those systems. But systems can change.

“One of the biggest opportunities is what we call ‘decoupling,’ ” Ramaswami said. “You can still grow your population and GDP if you decouple your basic provisioning systems from resource use and greenhouse gas emissions.”

That task is difficult, but not impossible. According to the [International Energy Administration](#), it is now cheaper to build new solar power facilities than coal or gas power plants. Ramaswami’s research on sustainable cities has found that urban areas could halve their resource and material use simply through better design — more density, fewer cars, accessible green space. Scientists are working on ways to [reduce agriculture emissions](#) and even [turn farmland into a carbon sink](#). These technological changes can limit humanity’s impact without hurting the affluence or population parts of the equation.

People should also recognize that the IPAT equation is just one way of looking at the issue, said Indiana University’s Shahzeen Attari, an expert in resource use and environmental psychology. It doesn’t account for metrics like happiness, or public health or the strength of civil society — measures of well-being that can’t be quantified in terms of dollars spent or resources used.

To achieve a sustainable society, Attari said, we should also “decouple” consumption from our ideas about progress and growth. Instead of focusing solely on GDP, nations could seek to improve a metric known as the Human Development Index, which also considers things like life expectancy and access to schooling. They could even take it one step further and adopt the

“[planetary pressures-adjusted](#)” HDI, which rewards countries that promote human development without increasing greenhouse gas emissions and resource use.

The effort to build a safe, healthy and equitable world can’t be boiled down to a numbers game. But if you do want to focus on a number, it shouldn’t be in the number of people on the planet. It should be [419 parts per million](#) — the concentration of carbon dioxide in Earth’s atmosphere. In the end, that’s the number that most needs to come down.

Related reading: **The problem with the Human Development Index in an era of ecological breakdown**, by [Jason Hickel \(University of London\)](#), [published on his website, July 5, 2018](#)