

City dwellers can have an outsized impact on curbing global warming

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It's no secret that city folk like to eat, shop and travel. But all that consumption adds up to a hefty climate bill.

On the flip side, that means urbanites have a lot of power to rein in greenhouse gas emissions. By changing their diets, their purchasing habits and how they get around, [city dwellers](#) can help avert the worst effects of warming.

A new report from C40 Cities—a coalition of nearly 100 local-level governments committed to addressing climate change—offers a sweeping plan for [city leaders](#) and residents to reduce the emissions associated with their consumption. Along with other urban climate initiatives, these measures would allow C40 cities to achieve 35 percent of the emissions cuts the world needs from them to meet international targets.

"Cities can do a massive amount," said Tom Bailey, head of research at C40 and a lead author of the report. "It's actually quite a wonderful opportunity."

The reason cities have so much sway is that they are responsible for up to 70 percent of the greenhouse gases that are pumped into the atmosphere, according to the United Nations.

Some of those emissions come from the tailpipes of cars stuck in traffic and the power plants that keep our iPhones charged. Others are released in distant lands where our shoes, medicines and computers are made.

Until recently, these consumption-related emissions weren't included in most cities' accounting, since they occur outside [city](#) limits. Adding them up makes urban carbon footprints even bigger—and uncovers new avenues for city leaders and residents to combat climate change.

The new report, produced by C40, the consulting firm Arup, and researchers at the University of Leeds in England, focused on cities in the C40 network. They include Los Angeles, San Francisco and New

York (former mayor Michael R. Bloomberg is president of C40's board) as well as international hubs like Beijing, Moscow, Dubai and Sao Paulo, Brazil.

Together, consumption in these cities accounts for more than 10 percent of the world's [greenhouse gas emissions](#).

Cities are increasingly home to the wealthiest people, who tend to consume more, and thus have bigger carbon footprints, Bailey said. By 2050, consumption-related emissions are projected to nearly double as cities grow even bigger and more affluent.

That's why dealing with [climate change](#) will require getting a handle on urban consumption, said John Barrett, an economist at the University of Leeds who contributed to the report. "We can't ignore demand," he said.

Wealthy cities in the Northern Hemisphere have to take the most dramatic action. Already, the consumption habits of a C40 resident in a rich country like the U.S. or Japan give them a carbon footprint more than four times bigger than her counterpart in a C40 city in Africa or Southeast Asia.

These well-off urban dwellers need to eliminate two-thirds of their consumption-related emissions by 2030 to stay on track to limit global warming to 1.5 degrees Celsius above preindustrial temperatures, the most ambitious goal of the Paris climate accord. (Low-income residents of cities like Nairobi, Kenya, actually have to increase consumption to meet their basic needs.)

It sounds like a tall order, but the report lays out a few key steps that, together, could deliver 20 percent of cities' necessary emissions cuts. And many are things that individuals can do now.

For instance, eating less meat and dairy and reducing food waste could cut cities' food-related emissions in half. (Local governments could encourage these changes by launching meatless Monday campaigns in schools and creating community gardens, the authors suggested.)

No one has to go vegan, although that couldn't hurt. The report found that cities would be off to a good start if each resident reduces meat consumption to 35 pounds a year (compared with the current U.S. average of 222 pounds) and cuts their annual dairy consumption to 200 pounds (down from nearly 650 pounds).

Such changes would produce significant health benefits too; the authors estimated that shifting toward a plant-based diet would prevent 170,000 deaths due to heart disease, cancer and other ailments in C40 cities each year.

The report also recommended changing shopping habits, like extending the lifetime of computers and other electronic devices and buying fewer clothes (the authors suggest no more than eight new items per person per year as a progressive target and three items as an aggressive goal).

That can be a challenge, since many people want to keep up with trends, said Stephanie Pincetl, director of the California Center for Sustainable Communities at UCLA, who was not involved in the report.

Pincetl recommends buying high-quality items that will last a long time. "It sounds like deprivation, but it's also a way to make your consumption much more thoughtful."

Other measures listed in the report will fall on city governments more than individual residents, like creating incentives for better building practices.

By using materials more efficiently, substituting green alternatives like sustainable timber or low-carbon cement, and ensuring that buildings are fully occupied, cities could reduce construction-related emissions 44 percent by 2050, according to the analysis.

These measures would also lower the cost of a new apartment by \$10,000 in New York and by \$15,000 in London, the report found.

"That makes construction and infrastructure a really exciting opportunity," Barrett said. "It ticks all the boxes."

Reducing car ownership would help shrink cities' emissions as well. Not only does burning gasoline produce carbon dioxide, just building a car racks up a big carbon footprint due to the impact of mining and manufacturing its components.

Convincing urbanites to abandon their cars will likely require government policies to promote alternative transportation. It's particularly important in a city like Los Angeles, Pincetl said, adding, "We can create a totally transit-viable region. But we have to be willing to combat the car."

The report also notes that flying is a major source of urban emissions, and one that won't get greener anytime soon. Air travel is growing far faster than progress on electric planes and low-carbon jet fuel, Bailey said.

So the authors recommend that city dwellers cut back on flights under 1,000 miles (think L.A. to Portland, Ore.) to one every two years, and to choose options like trains instead.

But these measures are not enough to bring urban emissions in line with global climate targets, the report found. Cities have to transition to

renewable energy, make buildings more efficient and build low-carbon transportation options. Along with changes in consumption habits, such efforts would get C40 cities a third of the way to their emissions targets.

Beyond that, cities will need help from national governments on changes like moving power grids to clean energy sources. That would reduce the carbon footprint of the things city-dwellers consume, no matter where they're made.

If countries follow through with the commitments they've already made under the Paris deal, C40 cities could accomplish 70 percent of their needed emissions reductions. Closing the rest of that gap—which must happen by 2050 to hit the 1.5-degree Celsius temperature target—would require even more aggressive actions across the board.

Cutting consumption-related emissions may ultimately mean rethinking the growth-oriented nature of our modern economies, Pincetl said.

"What reducing consumption implies is a reduction of economic activity," she said. "And in a capitalist economic system, it's a little scary for people to think about that kind of change."

Many cities show encouraging signs. Already, 27 C40 cities have seen their emissions drop. San Francisco has reduced its carbon footprint by 36 percent since 1990 and aims to be carbon-neutral by 2050. In April, L.A. Mayor Eric Garcetti unrolled his version of the Green New Deal to put the city on the same path.

Bailey said he hopes the report will help city leaders and residents see just how much they can do.

"This is a conversation starter," he said.

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