

# THE NEW YORKER

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## Why S.U.V.s Are Still a Huge Environmental Problem

The world is moving toward heavier cars at a time when it should be doing precisely the reverse.

By Elizabeth Kolbert  
March 3, 2023

Last year, the world’s S.U.V.s collectively released almost a billion metric tons of carbon dioxide. If all the vehicles got together and formed their own country, it would be the world’s sixth-largest emitter, just after Japan. This is a disturbing figure, but, according to a new [report](#) from the International Energy Agency, it gets worse. Globally, S.U.V. sales continue to grow, even though, last year, total passenger-vehicle sales fell. And the trend has now spread to electric vehicles: in 2022, for the first time, the sale of electric S.U.V.s edged out the sale of other electric cars.

The move toward bigger and heavier vehicles, it seems pretty obvious, is incompatible with the goal of reducing global emissions. The I.E.A. report noted that the average S.U.V. consumes about twenty per cent more oil than the average medium-sized car does to drive the same number of miles. Oil use translates directly into CO<sub>2</sub>, so the average S.U.V. is also releasing twenty per cent more carbon per mile driven.

The calculations become more complicated when the vehicles are electric, but the same basic math applies. Heavier vehicles require more energy to move around, and so, until the world is operating on zero-carbon electricity, the more an E.V. weighs, the more emissions it will produce. (Indeed, with electric vehicles, the weight problem is compounded: bigger cars need heavier batteries, which adds to their weight.) Heavier vehicles also require more materials to

produce, and therefore more energy goes into processing those materials. As another recent [report](#)—from the American Council for an Energy-Efficient Economy, a Washington, D.C.-based research group—notes, with E.V.s, too, size matters. In fact, the A.C.E.E.E. report observes that, “because powertrain efficiency and vehicle weight . . . have a significant effect” on the total environmental impact per mile, some hybrid and gasoline-powered vehicles actually do better than some E.V.s.

Why is it that the world is moving toward heavier cars at a time when it should be doing precisely the reverse? Probably the reasons are complex, but a big one is that carmakers like it this way. They make more money on S.U.V.s. According to a 2017 [report](#) by *Automotive News*, average prices for S.U.V.s and so-called crossover vehicles were up to fifty-one per cent higher than those for sedans and hatchbacks of comparable sizes, even though the S.U.V.s cost roughly the same as cars to produce. (Historically, the difference between cars and S.U.V.s was that the latter were built on truck frames; many crossover vehicles are now built on car frames, but for regulatory purposes are still counted as “light trucks.”)

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In the United States, carmakers have long profited from what’s known as the S.U.V. loophole. This loophole allows auto manufacturers to get around federal regulations on fuel efficiency by selling cars that can be classified as trucks. Perversely, the more S.U.V.s an auto company sells, the lower the over-all efficiency standards it has to meet. Unfortunately, the electrical-vehicle tax credits approved last year as part of the [Inflation Reduction Act](#) give S.U.V.s similarly favorable treatment. Under the act, a person who buys an electric car is eligible for a tax credit on a vehicle that costs up to fifty-five thousand dollars. If the same person purchases an S.U.V., though, the vehicle can cost up to eighty thousand dollars and still be eligible for the credit. Just recently, automakers convinced the Biden Administration to [classify more](#) electric vehicles as S.U.V.s to enable more wealthy buyers to get the tax credit; these vehicles include G.M.’s Cadillac Lyriq, which sells for sixty-three thousand dollars, and Tesla’s Model Y, which goes for fifty-eight thousand dollars.

Bigger, heavier vehicles don’t just emit more than smaller ones, their tires can produce more particulate pollution, and they cause more pedestrian fatalities. One recent study found that, if between 2000 and 2019 all the drivers of S.U.V.s in the U.S. had been driving cars instead, more than three thousand pedestrian deaths would have been avoided.

What’s to be done about all this? Writing in [Nature](#), in 2021, a trio of researchers led by Blake Shaffer, an economist at the University of Calgary, recommended charging car owners by the pound. “Setting registration charges on the basis of vehicle weight can discourage heavy vehicles,” the researchers wrote. “Collecting weight-based charges also addresses another looming problem for governments—lost revenue from forgone petrol and diesel taxes as more electric vehicles hit the roads.” Some places are already opting to do this. France, for example, imposes a fee that applies at purchase to vehicles weighing more than four thousand pounds: every extra kilogram costs the buyer ten euros. (Electric vehicles are exempt from the charge.)

And, last year, Washington, D.C., decided to [impose](#) weight-based registration fees. Starting in 2024, owners of vehicles that weigh more than six thousand pounds will pay an annual five-hundred-dollar fee, compared with seventy-two dollars for a car that weighs less than thirty-five hundred pounds.

Better still would be to ditch cars altogether. France [offers](#) people who trade in a gas-powered car for an electric bicycle a subsidy of up to four thousand euros. Several states and municipalities in the U.S. offer incentives for people who [purchase e-bikes](#); however, it's hard to find any that are tied to a trade-in. Meanwhile, the Inflation Reduction Act included no credits or incentives for buying e-bikes, despite lobbying by groups such as the League of American Bicyclists. "We are incredibly frustrated," the league said in a statement last summer, when the bill was finalized. As a recent [report](#) from the Climate and Community Project, a think tank based at the University of California, Davis, noted, U.S. climate policy "has, thus far, largely doubled down on car dependency."

Transportation is now the U.S.'s [largest source of greenhouse-gas emissions](#). (This dubious honor used to belong to the power sector, but, as the country has moved away from burning coal, electricity production has become less carbon-intensive.) Replacing today's auto fleet with a similar but, owing to battery weight, even heavier fleet of electric cars and electric S.U.V.s will reduce emissions but likely would produce many other problems, including more pedestrian deaths and a surge in demand for materials like lithium to make those batteries. Automakers may profit from this arrangement, but the rest of us should hope for—indeed, should demand—something different. ♦