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Energy, the Environment and the Bottom Line

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## **E.P.A. Report Suggests Waste Reduction and Recycling Reduces CO2 Emissions**

By *JOHN COLLINS RUDOLF*

E.P.A. A new E.P.A. study examines the greenhouse gas impacts of the way Americans obtain, deliver and dispose of goods. The full report, including this chart, can be found [here](#).

A [new report](#) from the United States [Environmental Protection Agency](#) suggests that way Americans procure, produce, deliver and dispose of goods and services — what the agency refers to as “materials and land management” — accounts for 42 percent of the nation’s greenhouse gas emissions.

The study took stock of the emissions generated by land use, food and product production across the entire life cycle — from resource extraction (think mining, agriculture and forestry) to manufacturing, packaging, transportation and ultimately disposal.

The report breaks from [conventional analyses](#) of greenhouse gas emissions, which typically focus on sectors such as transportation or electricity generation. According to Joshua Stolaroff, a former science and technology policy fellow with E.P.A.’s [Office of Solid Waste and Emergency Response](#) and the report’s lead technical author, it suggests that emissions savings from waste reduction, recycling and improved product design can be significant.

“These are things that were essentially considered small or zero in terms of how important they are to the climate change mitigation toolbox,” said Mr. Stolaroff.

Doubling the recycling of construction and demolition debris, for example, would result in an emissions savings of 150 million metric tons of CO2 equivalent per year, equal to the [entire annual carbon emissions from the state of North Carolina](#), the study found.

Reducing product packaging by half could also reap significant benefits — as much as 105 million tons of CO2 equivalent per year. Increasing the lifespan of personal computers by 25 percent, meanwhile, could reduce greenhouse gas emissions in the United States by 15 million tons of per year.

“Extending the life of products in general is probably a huge opportunity,” said Mr. Stolaroff.

The E.P.A. report was released in tandem with a [similar report](#), also written by Mr. Stolaroff, from the [Product Policy Institute](#), a nonprofit group focused on promoting sustainable production and consumption. In the Product Policy Institute report, Mr. Stolaroff, citing statistics from his E.P.A. report on the carbon impact of products and packaging, pushed for state, local and federal government adoption of “[Extended Producer Responsibility](#)” laws, which hold manufacturers responsible for the afterlife of their products.

Similar laws have been adopted in [Western Europe](#), [Canada](#) and other countries. In the United States, a number of states and New York City require electronics manufacturers to [pay a fee for the future disposal or recycling of their products](#).

Advocates for increasing producer responsibility also seized on the E.P.A. report as proof that stronger policies were needed to reduce waste and bolster recycling. “This just verifies what we thought all along,” said Heidi Sanborn, the executive director of the [California Product Stewardship Council](#), a nonprofit advocacy group.

“Manufacturers need to reduce the lifecycle cost of their products.”