

## SUSTAINABILITY

## Waste Not, Want Not

*The first comprehensive global look at food waste is as basic as you'd expect.*

From produce that rots in delivery trucks to oversized portions on restaurant plates, we waste vast amounts of food.

In fact, researchers at the Potsdam Institute for Climate Impact Research in Germany recently found that the average amount of food wasted per person per day has increased from 310 kilocalories in 1965 to 510 kilocalories in 2010.

That is roughly the equivalent of going from dumping six apples in the trash to tossing 10 of them—every single day.

By 2050 that number could go as high as 850 kilocalories, the researchers predict.

An exact tally of food waste is impossible, so to calculate these numbers the Potsdam team used a proxy: food surplus, or the difference between the amount of food a country produces or imports for consumption and the total calories its populace requires.

They ran the numbers for 169 countries (98 percent of the world's population) and calculated that in 2010—the year with the most recent data available—20 percent more food was available globally than what the human population needed.

Overall, the higher a country's standard of living, the more food it wasted.

The results were published in *Environmental Science & Technology*. Is all that extra food literally going into the garbage?

Not necessarily, says co-author and geocologist Prajal Pradhan.

People often eat more than they require (a complex and subjective calculation in its own right), and some leftovers also become livestock feed.

That means the study probably overestimated food waste, although Pradhan says the study incorporated fluctuating body weight data that should at least partly compensate for many of the people who simply overeat.

This overestimation does not weaken Pradhan's findings, however, says Matti Kummu, a civil and environmental engineering professor at Aalto University in Finland who was not involved in the study.

"Food surplus might be a simplistic estimate of food waste, but it's a good one."

There is also a silver lining to this surplus situation: if we could slash food waste, we could feed the world's projected population of at least nine billion people in 2050 without heroic increases in agricultural productivity

