

What's for dinner? The foods that carbon-heavy households eat

Keiichiro Kanemoto
Daniel Moran
Yosuke Shigetomi
Christian Reynolds
Yasushi Kondo

Video Abstract

Keywords: meat, carbon-heavy foods, protein, emissions, carbon footprint, diet, Japan, vegetables, sweets, alcohol, restaurants, households, policymakers, luxury taxes, food waste

Posted Date: March 19th, 2020

DOI: <https://doi.org/10.21203/rs.2.24888/v2>

License:  This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Abstract

Meat is one of the most carbon-heavy foods we eat. Per gram of protein, producing beef, for example, requires 20 times the land and emits 20 times the emissions as growing beans. So steering away from meat is actually a great way to fight climate change, as it vastly shrinks our carbon footprint on the planet. But do households with small carbon footprints necessarily eat less meat than those with large footprints? A new study says no. The researchers behind the study recently examined data pertaining to diet and carbon footprint across 60,000 households in Japan, whose current diet and demographics, scientists believe, could set the trend for the rest of the world. Correlating food-spending patterns with the carbon intensity needed to produce different foods revealed that meat consumption was unrelated to the size of a household's carbon footprint. Households with small, medium, or large footprints ate nearly identical amounts of meat. Where these households did differ was in the amount they spent on fish, vegetables, sweets, alcohol, and dining out. In fact, compared with households with a small carbon footprint, large-footprint households spent, on average, 3.3 times more on alcohol and twice as much on sweets and restaurants. It is these food categories, the authors argue, not meat, that explain why certain households have a more carbon-heavy palate than others. But, to be sure, more work is needed. For one, the team's current analysis treated monetary and physical values as equivalent. So pricier items labeled organic, for example, were incorrectly considered more carbon-heavy than the same non-organic items. Also, the researchers had access only to data at the level of households, not at the level of individuals. Still, the implications of the study could be far-reaching. The correlation between household wealth and the purchase of foods such as sweets and alcohol could help policymakers create measures that reduce excessive consumption and dietary carbon footprint: from luxury taxes on food to programs that prevent food waste. Understanding how to shrink humanity's collective footprint is more crucial than ever. And while seemingly a daunting task, our response to the planet's changing climate doesn't have to be complex. As this and other research shows, it could very well begin with something as simple as the food we eat.