What's The Environmental Footprint Of A Loaf Of Bread? Now We Know

ARI SHAPIRO, HOST:

We're going to talk now about a loaf of bread. Specifically, we're going to talk about how from farm to grocery store shelf that loaf of bread impacts the planet.

AUDIE CORNISH, HOST:

And this story is going to come from NPR's food editor, Rhitu Chatterjee. Welcome to the studio.

RHITU CHATTERJEE, BYLINE: Thank you, Audie. Good to be here.

CORNISH: So, Rhitu, there's a study out that shows the connection between a loaf of bread and global warming - each step of production, right? How did it work?

CHATTERJEE: So, you know, think about a loaf of bread, which I brought with me. It's an average - you know, you can find this loaf of whole wheat bread in a grocery store. And think about every step of the process, Audie, that leads to making this loaf of bread - the growing of it, the milling and the baking of it.

So this team of researchers at the Grantham's Center for Sustainable Futures at the University of Sheffield in the U.K. looked at every single step of that process to figure out what are the emissions associated with each step and then added it all up.

CORNISH: And what did they find in terms of emissions? How much energy does it take to make this loaf of bread?

CHATTERJEE: So they were looking at greenhouse gas emissions. And what they found is if you look at a single loaf of bread, they found the entire process that went into making it releases about 21 ounces of greenhouse gases into the atmosphere. That's about the weight of this loaf of bread.

It doesn't seem much. But if you look at it at the country level, the U.K., where the study was done, consumes over 4 billion loaves every year. And using the researchers' calculations, that means about 2.6 million tons of greenhouse gases in the atmosphere just from the bread consumed in the U.K. That's not insignificant.

CORNISH: Now, what point of the production chain was the problem?

CHATTERJEE: Take a guess.

CORNISH: Not the transport?

CHATTERJEE: No, it was actually the growing of the wheat. The farming led to nearly 50 percent of the overall emissions associated with the bread. And that's what the researchers are saying. If we understand where our food comes from, how it's grown, if you look at every step, we can figure out where most of the emissions are coming from. And it's a good way for us to figure out how to cut back on the emissions associated with all the food we eat.

CORNISH: Did they offer any suggestions on that front, though, of ways we can cut back?

CHATTERJEE: They did. One of their solutions was, you know, start with the nitrogen fertilizers that are applied on the farms because 40 percent of the emissions are coming from the manufacture and the use of nitrogen fertilizers on farms. So that's a good place to start.

CORNISH: And what about for the rest of us? When I'm in the grocery store, how should I be thinking differently?

CHATTERJEE: Well, the hope is in the future this kind of information will be made available to consumers. So say, for example, I want to eat a pastrami sandwich. And today, I already know that's a beef, for example - leads to a lot higher emissions than slices of bread. But in the future, if I had the information on, well, how does the emissions from a cheese and tomato sandwich compare with that of a pastrami sandwich, then that helps me make a choice of eating food that's, say, climate smart - that has fewer emissions.

CORNISH: Climate smart - we'll be seeing that soon next to the nutritional label, right?

CHATTERJEE: Exactly.

CORNISH: That's NPR's food editor Rhitu Chatterjee. Thanks for stopping by.

CHATTERJEE: My pleasure.

(SOUNDBITE OF NATIONAL SYMPHONY ORCHESTRA PERFORMANCE OF CHABRIER'S "ESPANA")