

Columnists

Originally published October 7, 2011 at 5:14 PM | Page modified October 7, 2011 at 5:56 PM

EcoConsumer

'Carbon footprint' info can lead to wiser choices

If you think your impact on the environment matters, then you probably want to know how, when and why it matters. That's where "carbon footprints" step in.

By Tom Watson

Special to The Seattle Times

If you think your impact on the environment matters, then you probably want to know how, when and why it matters. That's where "carbon footprints" step in.

Top comments
comments

Hide / Show

A carbon footprint can be defined loosely as "the best estimate that we can get of the full climate-change impact of something," according to British author Mike Berners-Lee, one of the world's leading experts on carbon footprints. His new book, "How Bad Are Bananas? The Carbon Footprint of Everything," is a practical, entertaining guidebook for this 21st-century concept.

[Read all 5 comments >](#)

[Post a comment >](#)

Though Berners-Lee fully recognizes the difficulty of correctly estimating carbon footprints, he makes a persuasive case that we need to try. Getting a sense of the full environmental impact of products, services and activities is the only way we can make informed choices.

Q: Why is it called a carbon footprint?

A: The release of "greenhouse gases" into the atmosphere results in human-caused climate change, or global warming. Carbon dioxide is the main greenhouse gas humans generate by burning fossil fuels. However, other greenhouse gases we produce such as methane and nitrous oxide are also significant, and carbon footprints include the effects of these emissions as well. For a product, greenhouse gases are emitted during the extraction of raw materials, manufacture, shipping, product use, disposal and more.

Q: How do carbon footprints work?

A: Researchers use the best estimation tools they have available, sometimes several methods, to come up with a figure. For example, Berners-Lee estimates a 4-ounce cheeseburger has a carbon footprint of 5.5 pounds. Even more important than the number itself is the ability it gives us to compare the impact of that cheeseburger with other foods and products.

A veggie burger, for example, has an estimated carbon footprint of 2.2 pounds, less than half that of a cheeseburger. This illustrates a recurring point Berners-Lee makes: Meat and dairy products have a much higher carbon footprint than most other foods, primarily because of the inherent inefficiencies in raising the animals that produce dairy products and meat.

To put those figures in context, consider that the average person living in North America has an annual carbon footprint of 28 tons, according to Berners-Lee. Australians are slightly higher, at 30 tons, while an average resident of China has a carbon footprint of 3 tons per year.

Q: What else might surprise us about carbon footprints?

A: Various factors influence carbon footprints, Berners-Lee points out, especially how a product is used. For example, we can reduce the footprint of the food we eat by up to 25 percent simply by wasting less food.

Few individual activities have a larger carbon footprint than an airplane trip. Planes burn enormous amounts of fuel, and the footprint of air travel is magnified because high-altitude emissions do more damage than other carbon emissions. One round-trip flight from the West Coast to Europe has a carbon footprint of nearly 5 tons.

Several of Berners-Lee's findings contradict conventional wisdom. Paper shopping bags generally have a larger carbon footprint than plastic bags because the paper industry is so energy intensive. Reusing bags or using durable bags can reduce the footprint substantially.

A reusable diaper often has a larger carbon footprint than a disposable diaper, but it depends on how the reusable diaper gets washed and dried. A pair of cotton jeans has a much larger lifetime carbon footprint than a pair of synthetic nylon pants because the nylon pair is more durable and takes little energy to dry.

Q: So how bad are bananas, really?

A: Not bad! Even though they travel thousands of miles, bananas have a relatively small carbon footprint compared with their high nutritional value. Bananas provide their own packaging, are usually shipped by boat rather than airplane, and grow in natural sunlight, not greenhouses.

As Berners-Lee's book illustrates, environmental awareness is a constant work in progress as we try to mesh science with common sense. The increasing study of carbon footprints makes a big step in the right direction.

Tom Watson is project manager for King County's Recycling and Environmental Services. Reach him at tom.watson@kingcounty.gov, 206-296-4481 or www.KCecoconsumer.com