



The influence of nutrition on the climate

Cookbutler's sustainability overview for the food industry

1850

2023

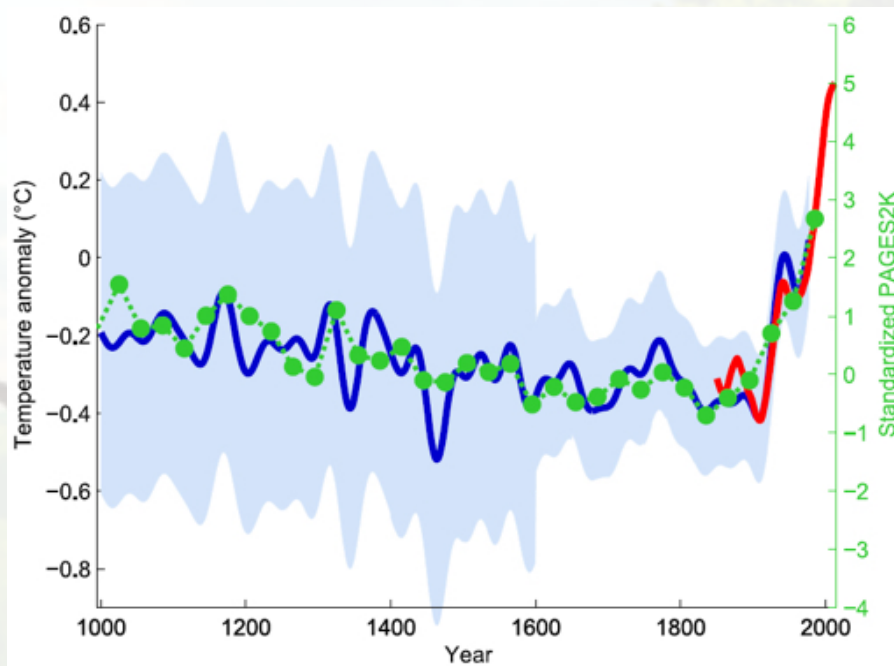


**IF YOU WERE THE CEO OF A FAMILY
BUSINESS, HOW WOULD YOU
REACT TO THE PERFORMANCE OF
YOUR STOCK PRICE?**



**WHY DON'T WE REACT JUST
THE SAME WHEN IT COMES TO
CLIMATE DEVELOPMENT?**

Development of the climate over the past 1,000 years



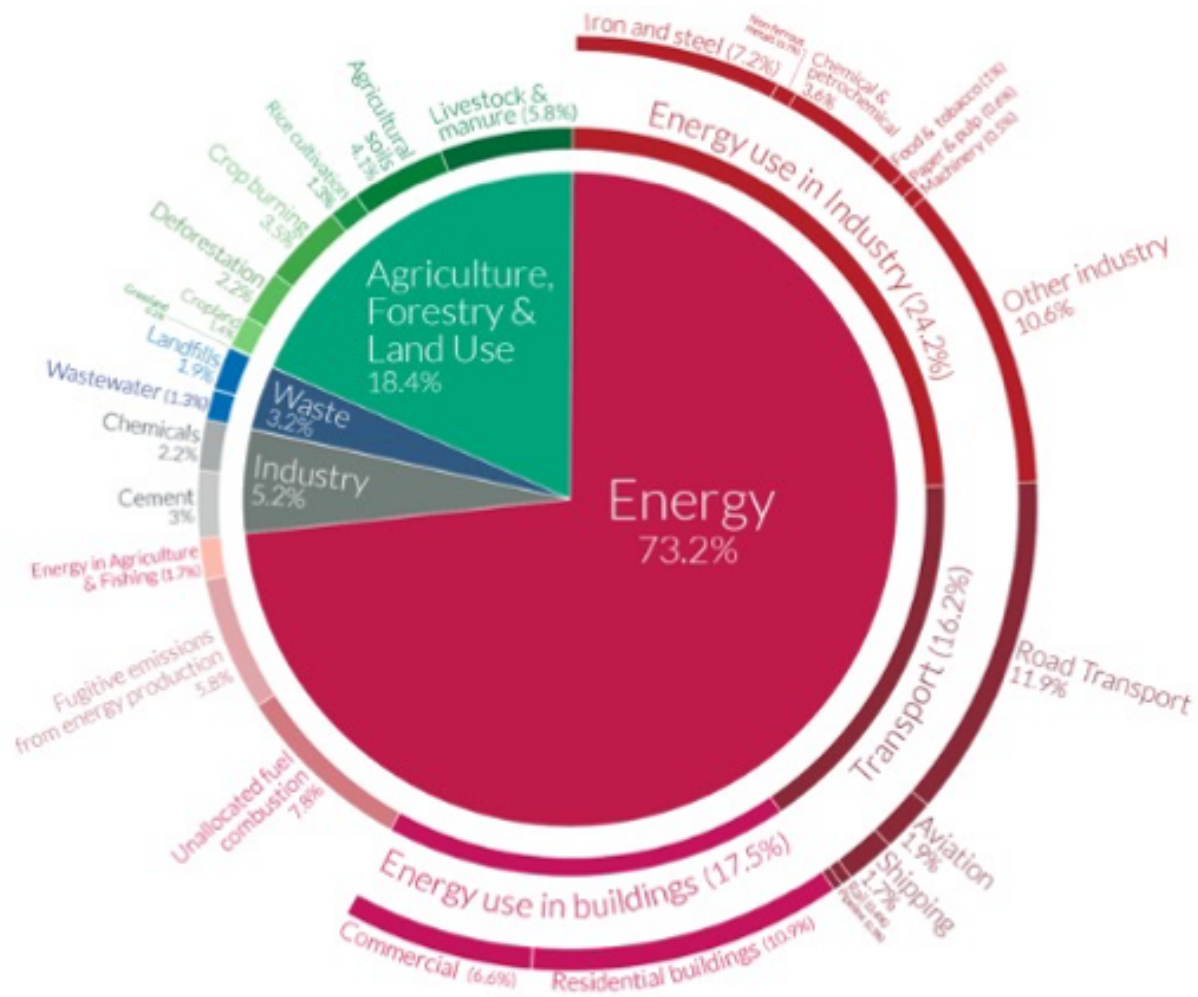
Climate change with the greenhouse effect cannot be denied. Every single person must act!

We give you tips for an alternative and eco-friendly nutrition.

GREEN: 30-year average (area-weighted mean across continents) of PAGES 2k reconstruction..

RED: Global mean temperature according to HadCRUT4 measured data from 1850 (smoothed with a 30-year window).

BLUE: Field hockey stick by Mann, Bradley, and Hughes (1999) with its uncertainty area (light blue)..



OurWorldinData.org – Research and data to make progress against the world's largest problems.
 Source: Climate Watch, the World Resources Institute (2020). Licensed under CC-BY by the author Hannah Ritchie (2020).

<https://ourworldindata.org/emissions-by-sector>



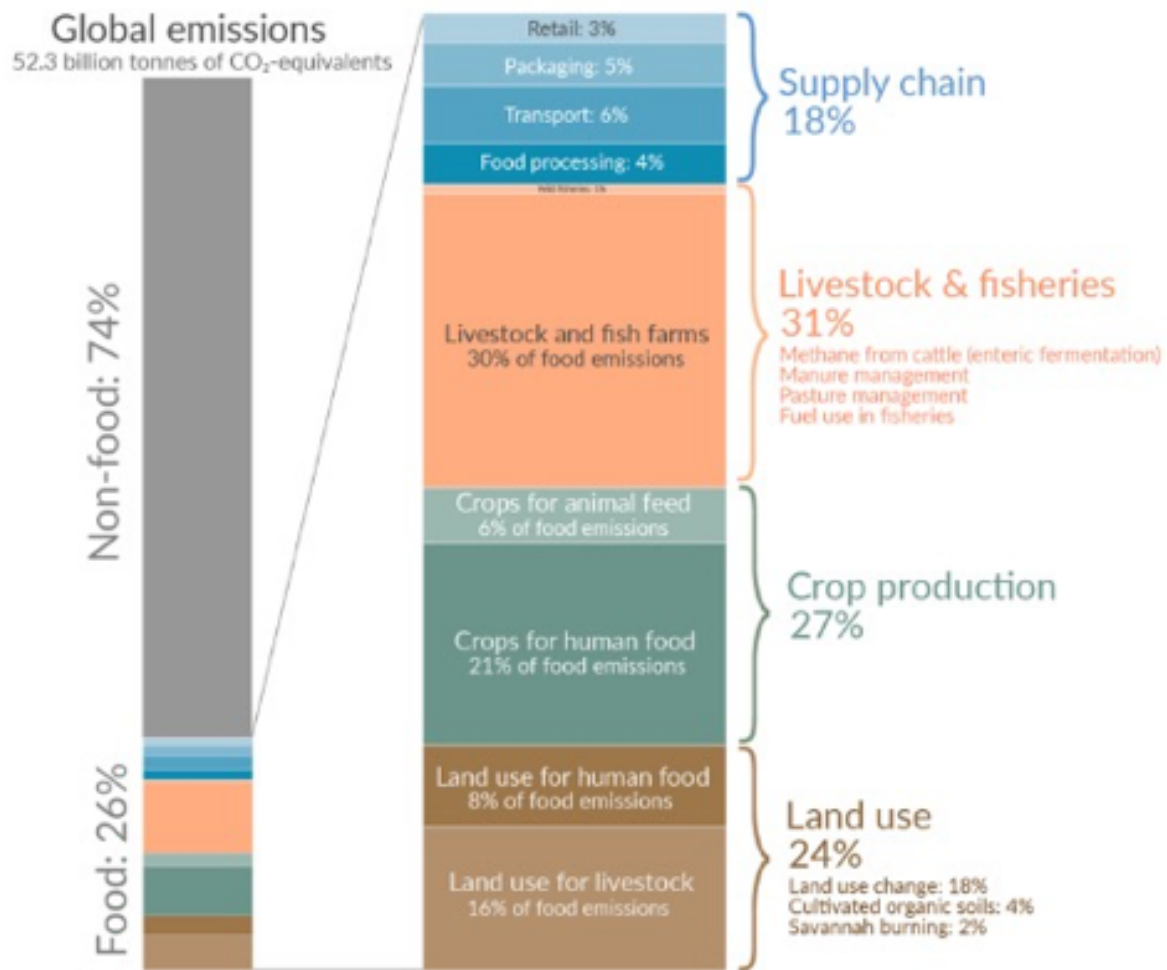
Drivers of climate change

A photograph of a red tractor with a white tank and orange nozzles spraying a vast green field. The sun is low on the horizon, creating a golden glow and long shadows. The sky is filled with wispy clouds and a few contrails.

26%

**Food production accounts
for over a quarter of global
greenhouse gas emissions**

Incl. Energy/Transportation/Processing/Buildings, etc.,
<https://ourworldindata.org/food-ghg-emissions>



Data source: Joseph Poore & Thomas Nemecek (2018). Reducing food's environmental impacts through producers and consumers. Published in Science. Licensed under CC-BY by the author Hannah Ritchie (Nov 2022).

<https://ourworldindata.org/food-ghg-emissions>



Emission share of food production

Influence of livestock

50%

Half of the world's habitable land is used for agriculture.

<https://ourworldindata.org/environmental-impacts-of-food>

77%

More than three-quarters of the arable land is used for livestock farming.

<https://ourworldindata.org/environmental-impacts-of-food>

96%

The majority of animals are livestock. Only 4% of the animal biomass are wild & free-living animals.

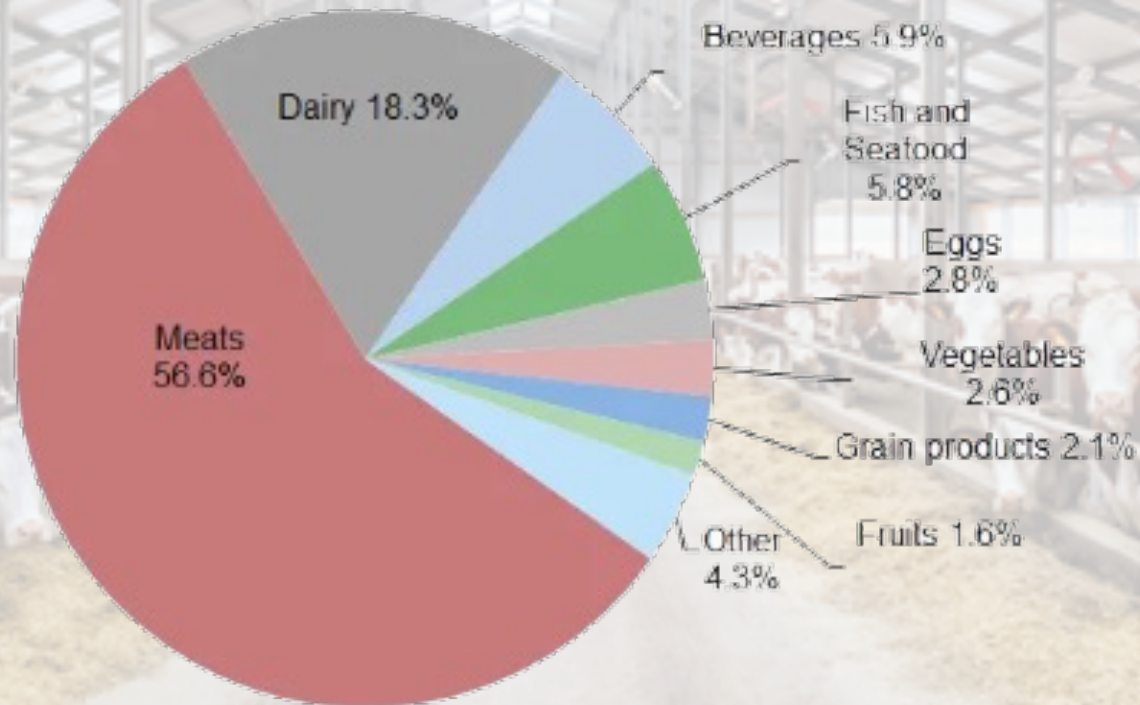
<https://ourworldindata.org/environmental-impacts-of-food>

18%

But only 18% of our daily calories we get from meat & dairy products. 82% from plant-based food.

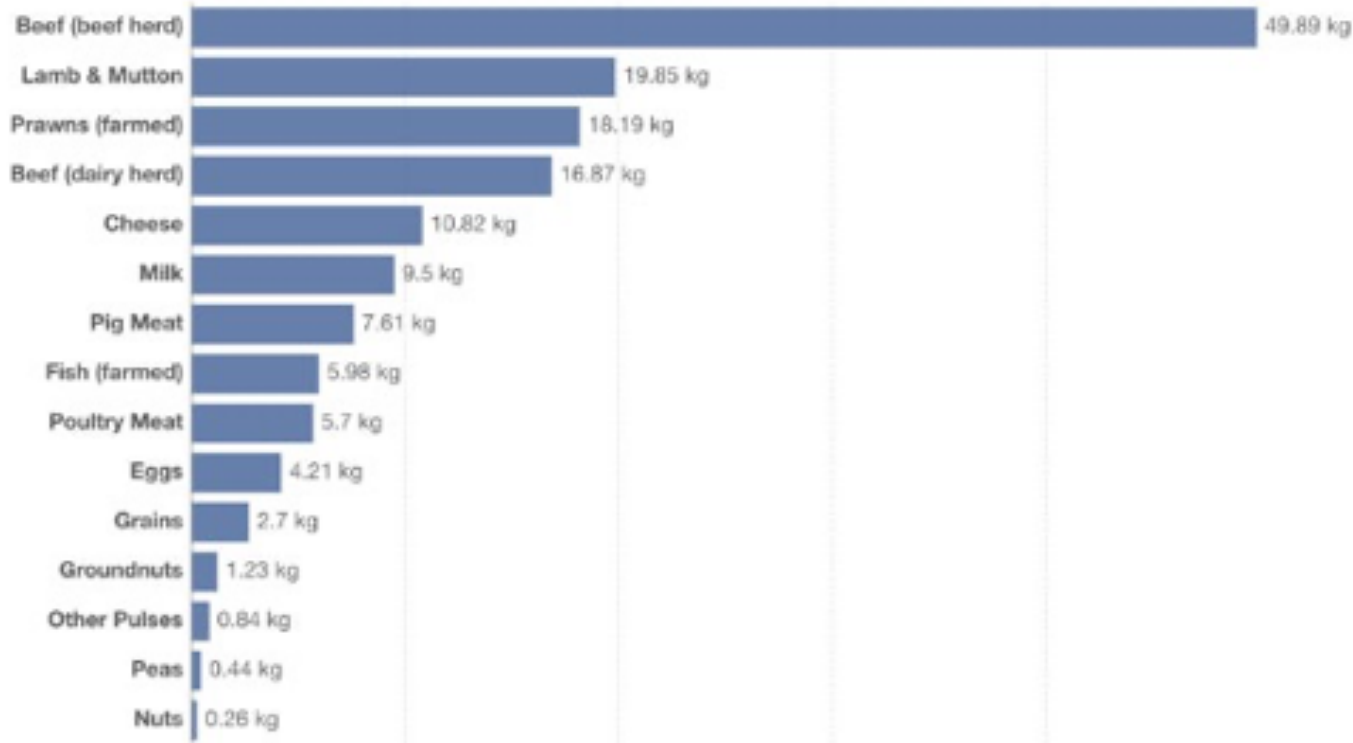
<https://ourworldindata.org/environmental-impacts-of-food>

Contribution of greenhouse gases by food category



CO2 per 100g protein

Emissions are measured in carbon dioxide-equivalents .



Source: Joseph Poore and Thomas Nemecek (2018). Additional calculations by Our World in Data. [OurWorldInData.org/environmental-impacts-of-food](https://ourworldindata.org/environmental-impacts-of-food) • CC BY

37%

Only 37% of protein comes from meat & dairy products. 63% via plant-based food.

<https://ourworldindata.org/environmental-impacts-of-food>



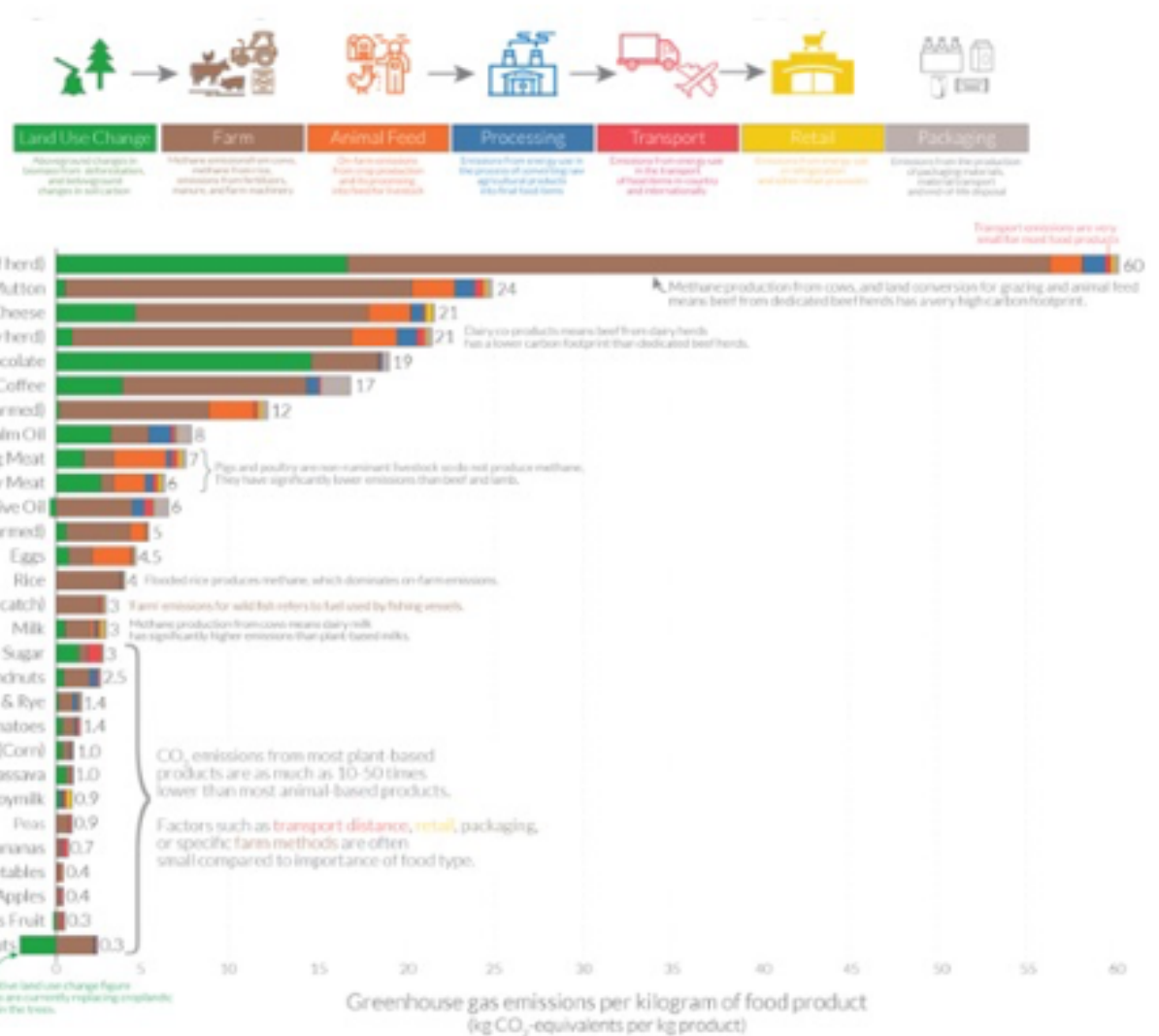
Transport

Globally, transportation accounts for only 5% of food system emissions.

Transport

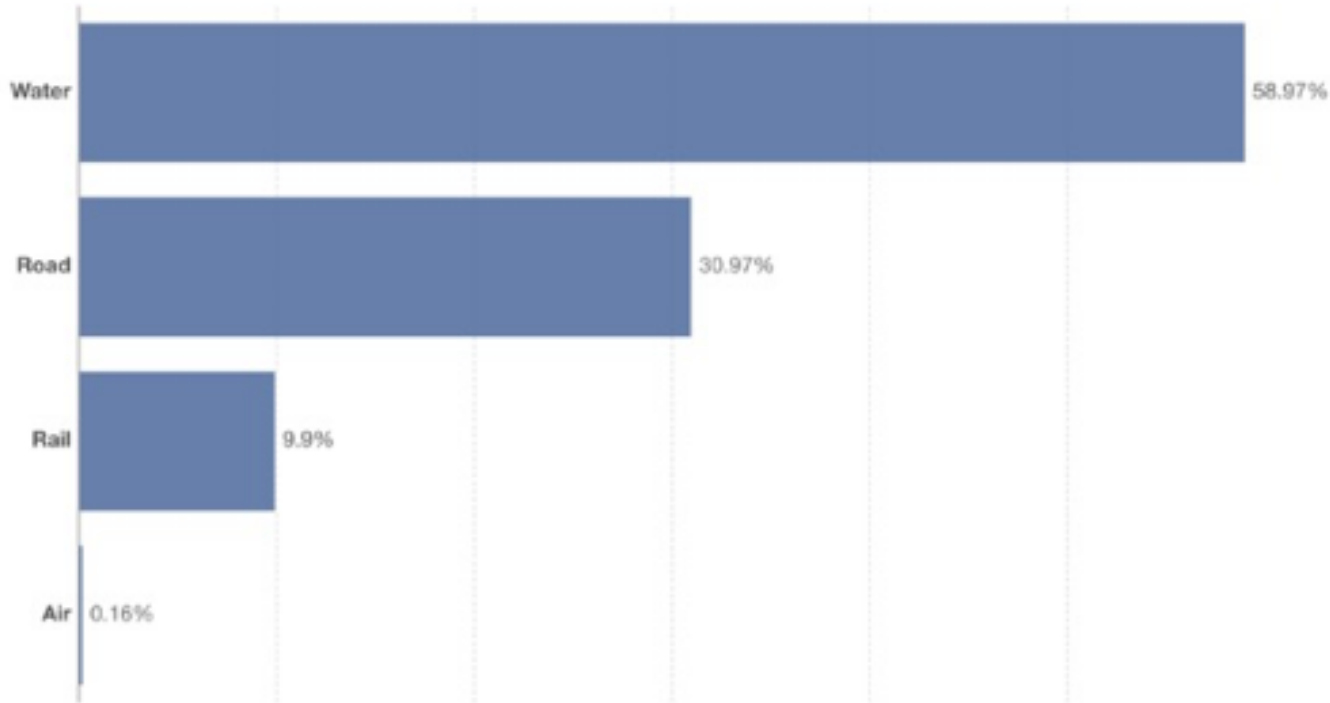
Depending on the product, the share of transport in total emissions is even lower.

<https://ourworldindata.org/environmental-impacts-of-food?insight=food-emissions-local#key-insights-on-the-environmental-impacts-of-food>



Note: Greenhouse gas emissions are given as global average values based on data across 38,700 commercially viable farms in 119 countries. Data source: Poore and Nemecek (2018). Reducing food's environmental impacts through producers and consumers. Science. Images sourced from the Noun Project. OurWorldInData.org - Research and data to make progress against the world's largest problems. Licensed under CC BY by the author Hannah Ritchie.

Food miles are measured in tonne-kilometers, which is a unit of measure of freight transport which represents the transport of one tonne of goods over a distance of one kilometre. Shown is each transport method's share of global food miles.



Source: Joseph Poore and Thomas Nemecek (2018).

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Transport mode	Ambient transport (kg CO ₂ e per tonne-kilometer)
Road Transport	0.2
Rail Transport	0.05
Sea / Inland Water Transport	0.01
Air Transport	1.13

<https://ourworldindata.org/food-transport-by-mode>

Air freight is 50 times more harmful than alternative transport routes.

However, very little food is transported by air.

Cookbutler's sustainability recommendations

1. The type of food we eat is much more important than the distance it has traveled.
2. Choose alternatives to air freight transportation.
3. Rethink your meat consumption, e.g. eat less but higher quality. Vegetarians or vegans live more sustainably.
4. Switch to meats with a lower CO2 footprint.
5. Optimize your shopping habits (means of transport, frequency of purchases, local and seasonal products, etc.).

Only we consumers have the power to change the system!

New Products & Services

- CO2 "foodprint": Calculation of the CO2 footprint on a recipe basis.



- Other indicators such as land use, water consumption, methane, nitrogen, phosphate, fair labor are conceivable.

Low impact meals are those with a CF value between 0.1 and 0.5 kg CO2e/kg meal. This threshold was set by WWF in line with IPCC reports (IPCC, 2018). To eat in line with the Paris Agreement and keep temperature rise below 1.5°C above pre-industrial levels by 2050, we are allocated a daily carbon budget of 1.62 kg CO2e, with one meal accounting for 30% of this budget (WWF One Planet Plate, 2019).

Together for a better world!

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