



THE UNIVERSITY of EDINBURGH
Global Academy of
Agriculture and Food Systems

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Sustainable diets

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Myths about sustainable diets

- There is just one way to have a sustainable diet
- Sustainable diets cannot meet nutrient needs
- There is one way to measure the sustainability of a diet
- Diets cannot be sustainable if they contain any animal products at all

Image by [Max Franke](#) from [Pixabay](#)



Sustainable diets meet the needs of humans while protecting the environment

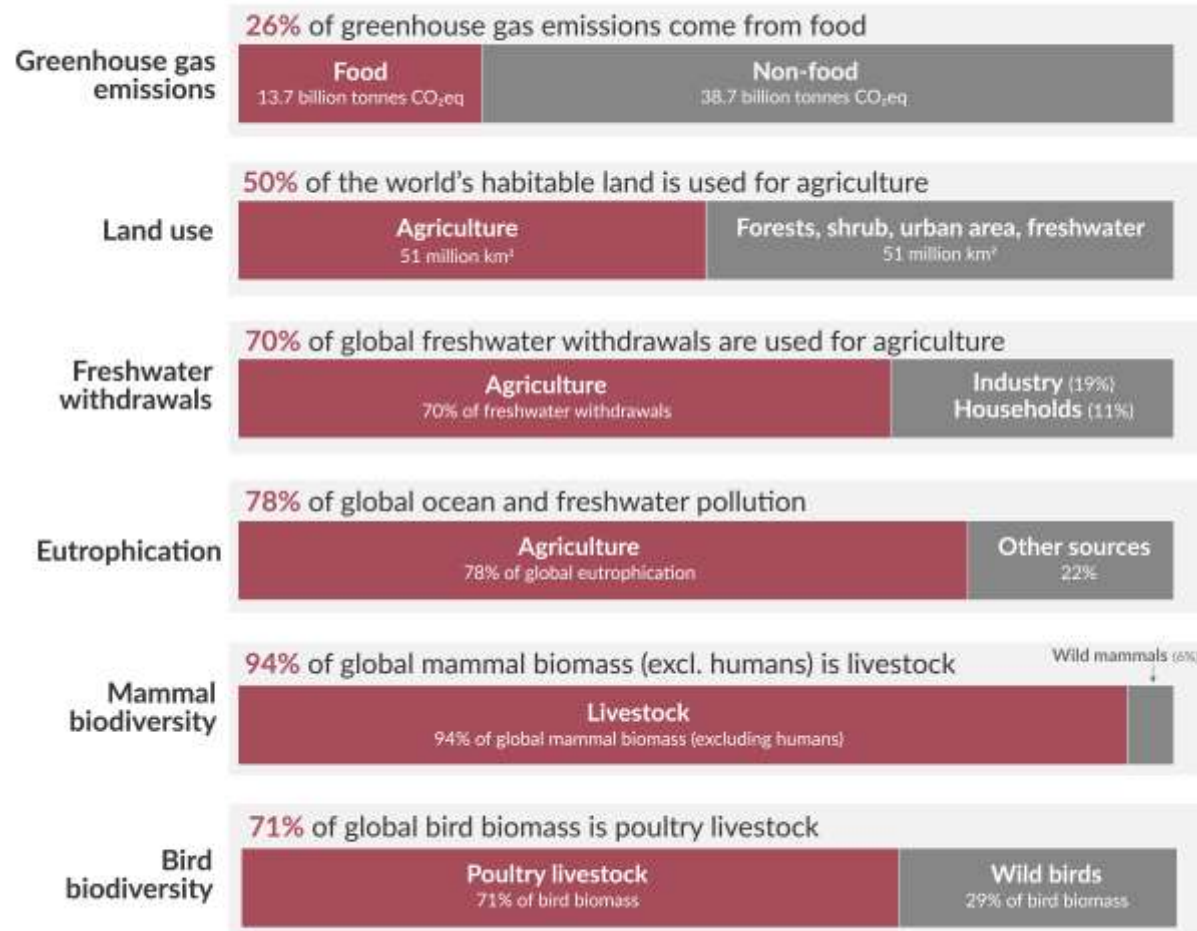
“Sustainable diets are dietary patterns that promote all dimensions of individuals' health and wellbeing; have low environmental pressure and impact, are accessible, affordable, safe, and equitable, and are culturally acceptable.”

- Food and Agriculture Organization (2010)

Image by [onehundredseventyfive](#) from [Pixabay](#)



The environmental impacts of food and agriculture



Data sources: Poore & Nemecek (2018); UN FAO; UN AQUASTAT; Bar-On et al. (2018).
OurWorldinData.org - Research and data to make progress against the world's largest problems.

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Date published: November 2022.

- Food production has a large environmental impact
- About ~25% of greenhouse gasses are from food production



Sustainability can be measured across many dimensions

Dimension

- Land use
- Greenhouse gas emissions
- Water use
- Water pollution
- Soil losses
- Biodiversity

Basis

- Per calorie / joule
- Per unit of any nutrient
- Per kilogram
- Per serving
- Per person
- Per population
- Per year
- Per day

Image by [Pexels](#) from [Pixabay](#)



Is sustainability part of national dietary guidelines?



By Cornell Atkinson, available here



The Lancet Planetary Health
Volume 6, Issue 12, December 2022, Pages e977-e986



Review

Environmental sustainability in national food-based dietary guidelines: a global review

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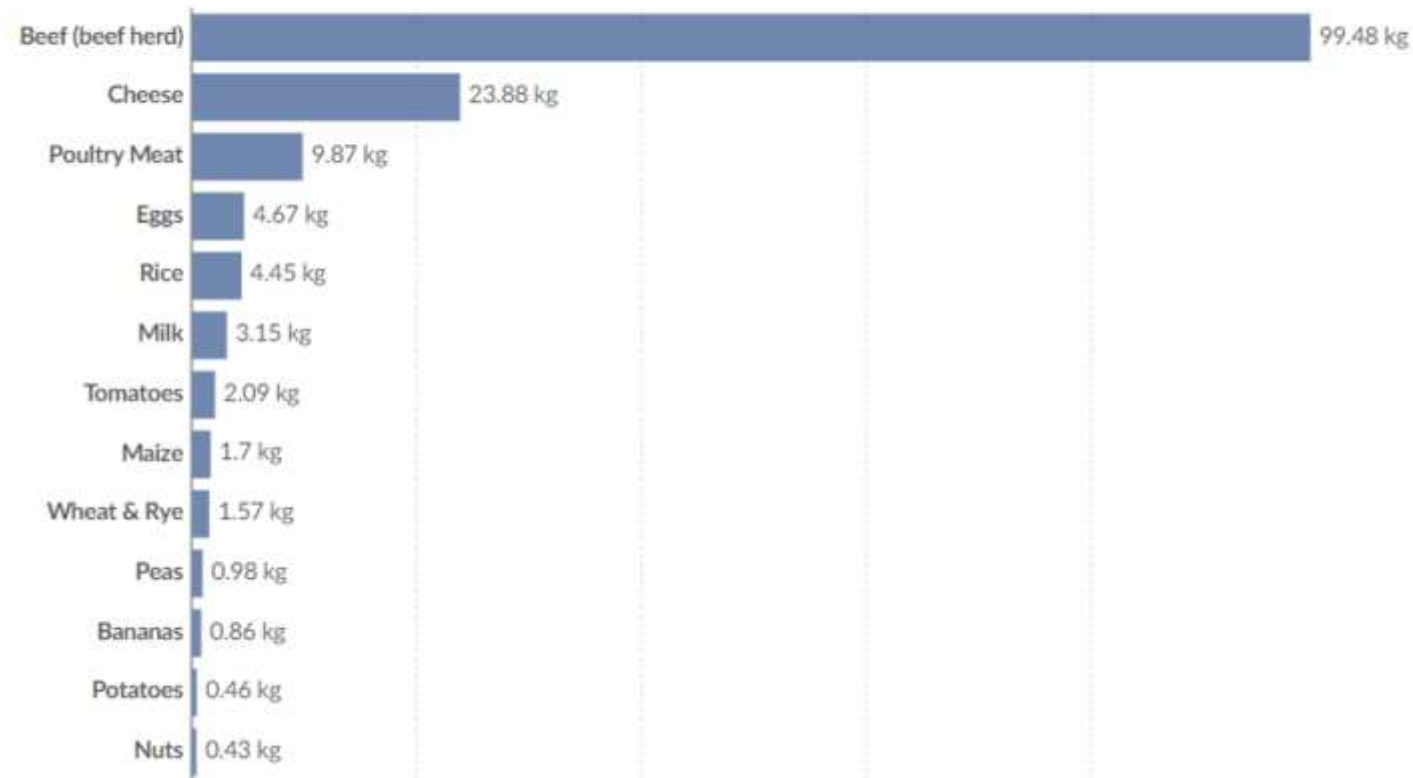
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Foods vary widely in their impact on the environment

Greenhouse gas emissions per kilogram of food product



Greenhouse gas emissions¹ are measured in kilograms of carbon dioxide-equivalents². This means non-CO₂ gases are weighted by the amount of warming they cause over a 100-year timescale.



Data source: Poore and Nemecek (2018)

OurWorldInData.org/environmental-impacts-of-food | CC BY

Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*. – processed by Our World in Data. "Greenhouse gas emissions per kilogram" [dataset]. Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. *Science*. [original data].



Different regions and cultures will have different approaches to dietary sustainability

- Some effort towards dietary sustainability is better than none
 - Huge progress is possible without perfection
- Some strategies may include:
 - Encouraging plant-based diets
 - Encouraging seasonal diets
 - Reducing food waste
 - Portion mindfulness
 - Diversify protein sources
 - Promote sustainable agriculture
 - Promoting sustainable fisheries
 - Labeling foods for environmental impact
 - Education about sustainable diets

Photo by [Adrian Infernus](#) on [Unsplash](#)



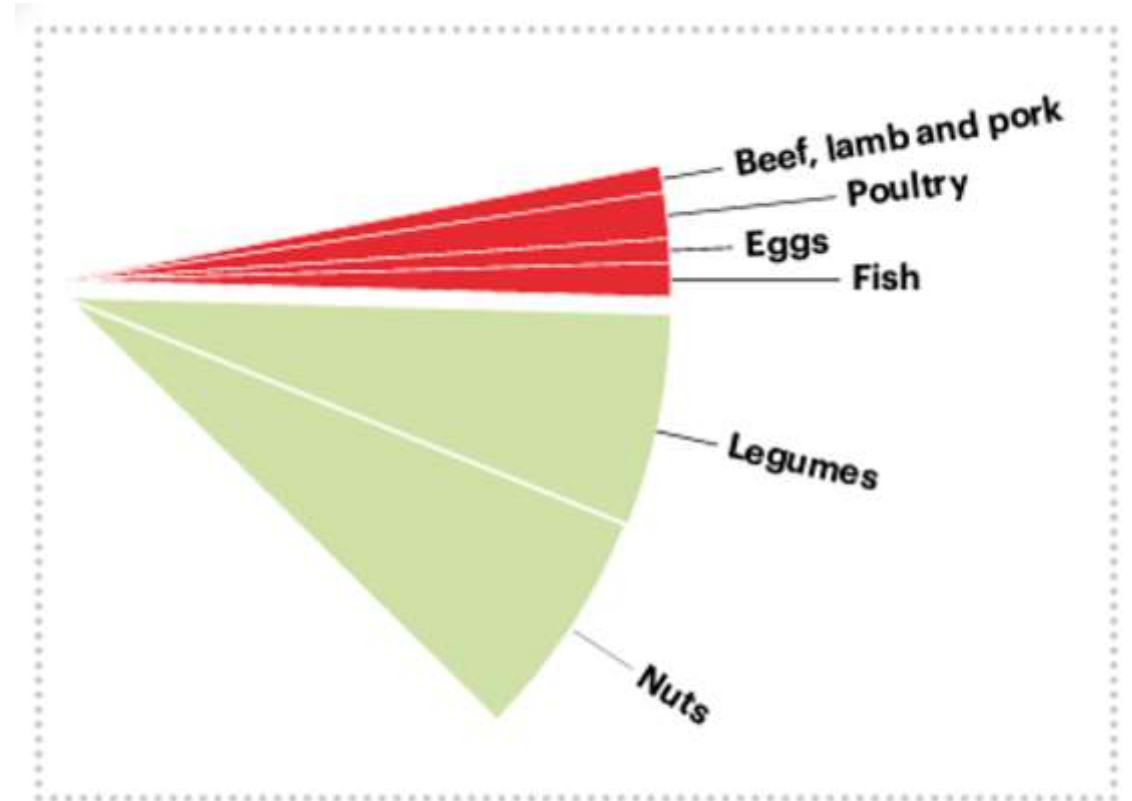
The EAT-Lancet Commission Report



The screenshot shows the top portion of a webpage. In the top left corner is the EAT logo, consisting of the letters 'E' and 'A' in orange with two dots above them, and 'T' in orange below them. To the right of the logo is a navigation menu with links for 'News', 'Knowledge', 'Initiatives', 'Partners', 'Events', and 'About EAT'. Further right are icons for a search function and a hamburger menu. Below the navigation is a breadcrumb trail: 'Home → The EAT-Lancet Commiss...'. The main heading is 'The EAT-Lancet Commission on Food, Planet, Health' in a large, bold, black serif font. Below the heading is a sub-heading in a smaller, black sans-serif font: 'Can we feed a future population of 10 billion people a healthy diet within planetary boundaries?'.



The Planetary Health diet is a "Flexitarian Diet"



Critiques and controversies around the EAT-Lancet Planetary Health Diet

- Diverse cultures and traditions around the world
- Livelihoods of farmers and ranchers need attention
- Feasibility given diverse nutrient needs?
- Access to all necessary foods?
- Nutrient adequacy for certain nutrients?
- Cost of the planetary health diet?



Image by [lumix2004](#) from [Pixabay](#)



Data and resources

- Our World in Data [has a great article on the land use of diets](#)
- [EAT-Lancet Commission on Food, Planet, and Health](#)
- Article from James-Martin et al. (2022) in [The Lancet Planetary Health](#)
- Article from Beal et al. (2023) in [The Journal of Nutrition](#) on nutrient adequacy of the EAT-Lancet diet
- Article from Hirvonen et al. (2020) in [The Lancet Global Health](#) on the cost of the EAT-Lancet diet



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Thank you

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