

CAN WE FEED A FUTURE POPULATION A HEALTHY DIET WITHIN PLANETARY BOUNDARIES?

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A vibrant outdoor market scene featuring a stall with various fresh produce. In the foreground, there are several woven baskets and wooden crates filled with green citrus fruits, likely lemons or limes, and some red and green mangoes. A man in a brown jacket is seen in the background, looking towards the camera. The stall is set up under a simple wooden structure. The background shows a busy market with many people and other stalls, suggesting a bustling community hub.

FOOD IS THE SINGLE STRONGEST LEVER TO OPTIMIZE HUMAN HEALTH AND ENVIRONMENTAL SUSTAINABILITY ON EARTH. HOWEVER, FOOD IS CURRENTLY THREATENING BOTH PEOPLE AND PLANET.

EAT Lancet Commission Report, 2019.

The **EAT Lancet Commission** brought together 37 world-leading scientist to answer the following question: *Can we feed a future population of 10 billion people a healthy diet within planetary boundaries?*



The EAT-Lancet Commission on
Healthy Diets From
Sustainable Food Systems

**Food
Planet
Health**

The answer to this question is yes, but it will be impossible without transforming eating habits, improving food production and reducing food waste.



The definition of sustainable consumption

„the use of services and related products, which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations”

UN environment programme



WHAT DOES SUSTAINABLE FOOD CONSUMPTION MEAN IN PRACTICE?

- eat less meat and processed foods
- shop local
- choose seasonal food
- reduce your food waste
- compost your food waste
- bring your own bag to the shop
- recycle
- take a look on food labels



WHAT CAN WE RECYCLE?

RECYCLE

PUT RECYCLABLES
IN THE RECYCLING BIN



glass



metal and cans



plastics #1 - 7



cardboard
and cartons

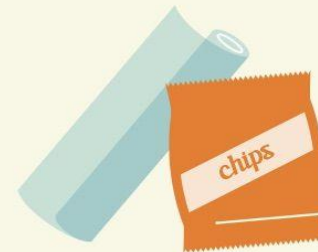


paper and
newspaper



TRASH

PUT NON-RECYCLABLES IN YOUR
TRASH OR COMPOST



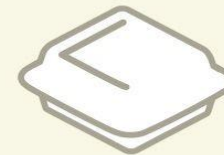
film plastic (plastic wrap,
bags, bubble wrap, etc.)



yard clippings
(if not composting)



dirty diapers
or cat litter



foam



food (if not
composting)



LABELS ON FOOD PRODUCTS



THE EFFECTS OF THE CURRENT GLOBAL FOOD CONSUMPTION

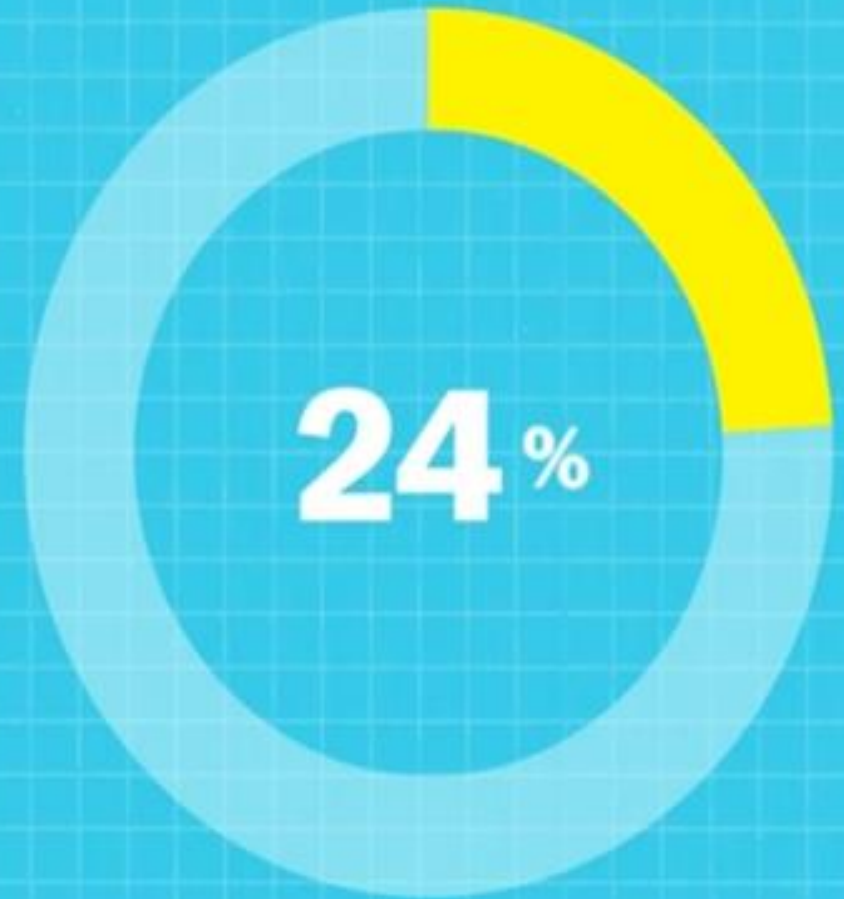
The consumption of animal-sourced food products by humans is one of the most powerful negative forces affecting the conservation of terrestrial ecosystems and biological diversity. Livestock production is the single largest driver of habitat loss, and both livestock and feedstock production are increasing in developing tropical countries where the majority of biological diversity resides.

The projected land base required by 2050 to support livestock production in several megadiverse countries exceeds 30–50% of their current agricultural areas. Livestock production is also a leading cause of climate change, soil loss, water and nutrient pollution, and decreases of apex predators and wild herbivores, compounding pressures on ecosystems and biodiversity.

Machovina, B., Feeley, J. K., Ripple, W. J. (2015). Biodiversity conservation: The key is reducing meat consumption. *Science of The Total Environment*, p.419-431.

Global greenhouse gas emissions from agriculture, forestry and other land use

UN IPCC Fifth Assessment Report, 2014



THE PLANETARY HEALTHY DIET



	Macronutrient intake grams per day (possible range)	Caloric intake kcal per day
Whole grains Rice, wheat, corn and other	232	811
Tubers or starchy vegetables Potatoes and cassava	50 (0-100)	39
Vegetables All vegetables	300 (200-600)	78
Fruits All fruits	200 (100-300)	126
Dairy foods Whole milk or equivalents	250 (0-500)	153
Protein sources		
Beef, lamb and pork	14 (0-28)	30
Chicken and other poultry	29 (0-58)	62
Eggs	13 (0-25)	19
Fish	28 (0-100)	40
Legumes	75 (0-100)	284
Nuts	50 (0-75)	291
Added fats		
Unsaturated oils	40 (20-80)	354
Saturated oils	11.8 (0-11.8)	96
Added sugars		
All sugars	31 (0-31)	120

SOME FOODS ARE „WIN-WIN” OTHERS ARE „LOSE-LOSE”

Health and environmental impacts of various foods

- Emphasized foods
- Optional foods
- Limited foods

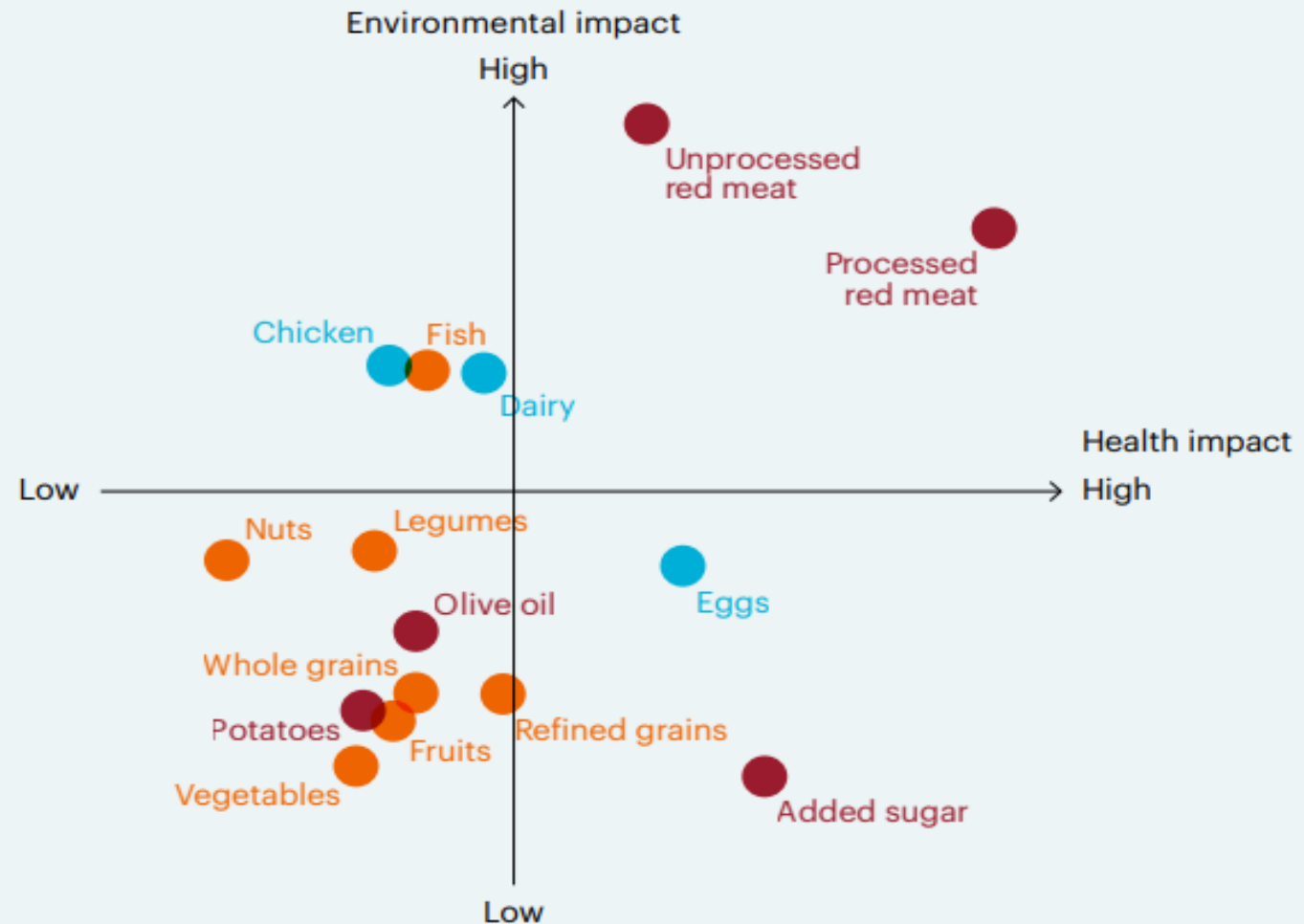
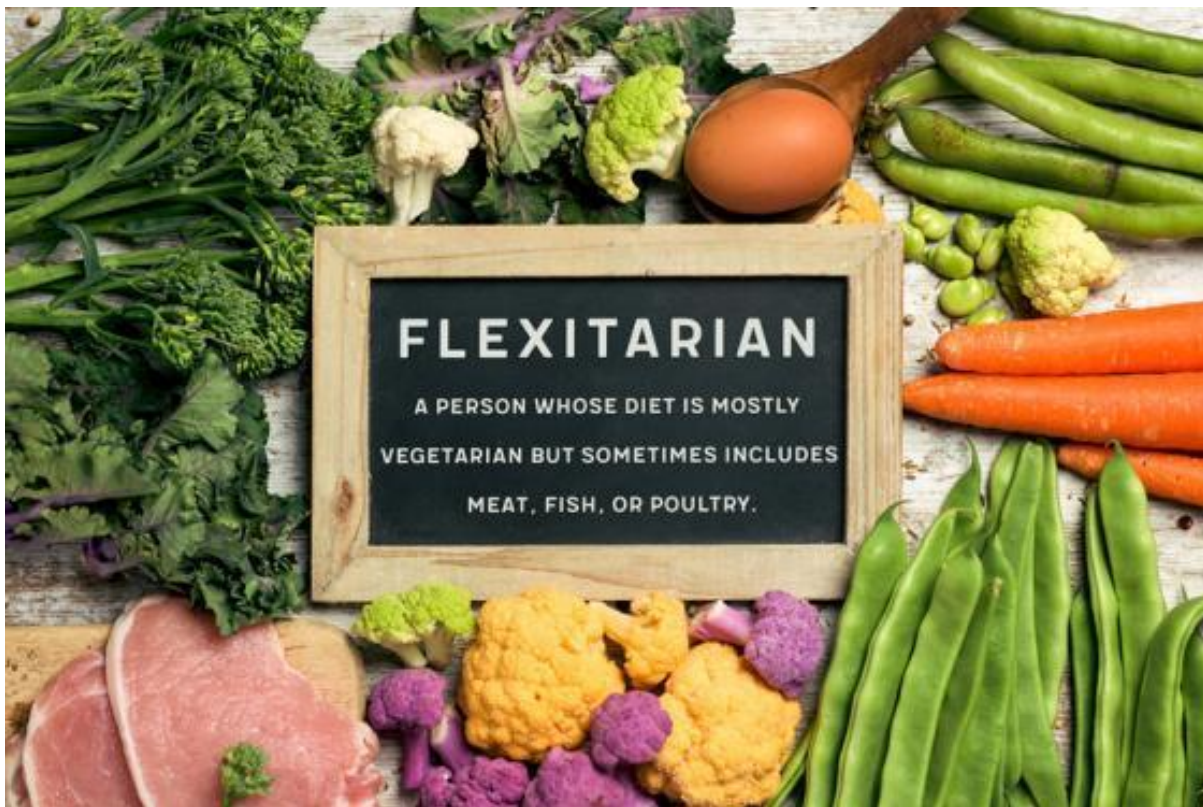
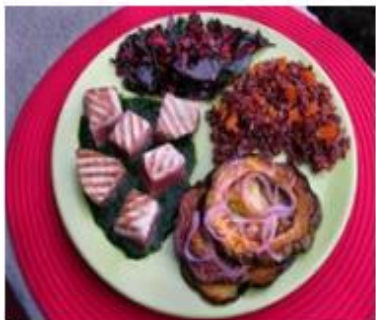


Figure 4.

The health and environmental impacts of various foods. Overconsumption of red and processed meats increases the risk to both human health and the environment. Plant foods tend to be good for both people and planet. Added sugar is a major driver of poor health but has much lower environmental impacts.

Source: Clark et al. (2019).¹⁷

EXAMPLES OF A PLANETARY HEALTHY DIET, according to the EAT Lancet Commision



Dietary changes from current diets toward healthy diets are likely to result in significant health benefits.

Approach 1
Comparative Risk

19%

or

11.1 million
adult deaths per year

Approach 2
Global Burden of Disease

22.4%

or

10.8 million
adult deaths per year

Approach 3
Empirical Disease Risk

23.6%

or

11.6 million
adult deaths per year

The Eat Lancet Commission, 2019.



Plant-based eating can be cost-effective

A study suggests that if 10% of the total population commit to a high adherence of the **Mediterranean diet**, societal cost savings of €1.30 billion in Belgium and even £5.21 billion in the United Kingdom are estimated over 20 y.

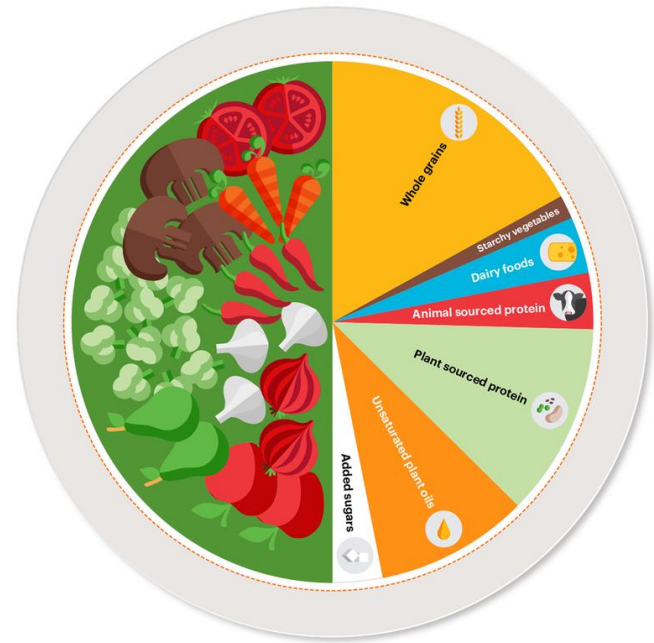
If 10% of the total population commit to consuming a **high soy-containing** diet, the corresponding estimated savings would be €1.53 billion and £7.54 billion for Belgium and the United Kingdom, respectively.

Schepers, J., M.Sc., Annemans, L., Ph.D. (2018). The potential health and economic effects of plant-based food patterns in Belgium and the United Kingdom. *Nutrition*. 48:24-32.

PLANT-BASED DIETS ARE IN LINE WITH...

- AMERICAN HEART ASSOCIATION
- AMERICAN INSTITUTE FOR CANCER RESEARCH
- AMERICAN CANCER SOCIETY, 2020
- CANADA FOOD GUIDE, 2020
- EAT LANCET, 2019

The Planetary Health Plate



NATIONAL DIETARY GUIDELINES (NDGs)



A shift toward healthy and sustainable diets should be a priority in all G20 countries.

Following the current national dietary guidelines of the G20 countries will not ensure that global warming stays below 1.5°C.

National dietary guidelines are an opportunity for policymakers to support coherent food and agriculture priorities aligned with the Paris Agreement and Sustainable Development Goals.

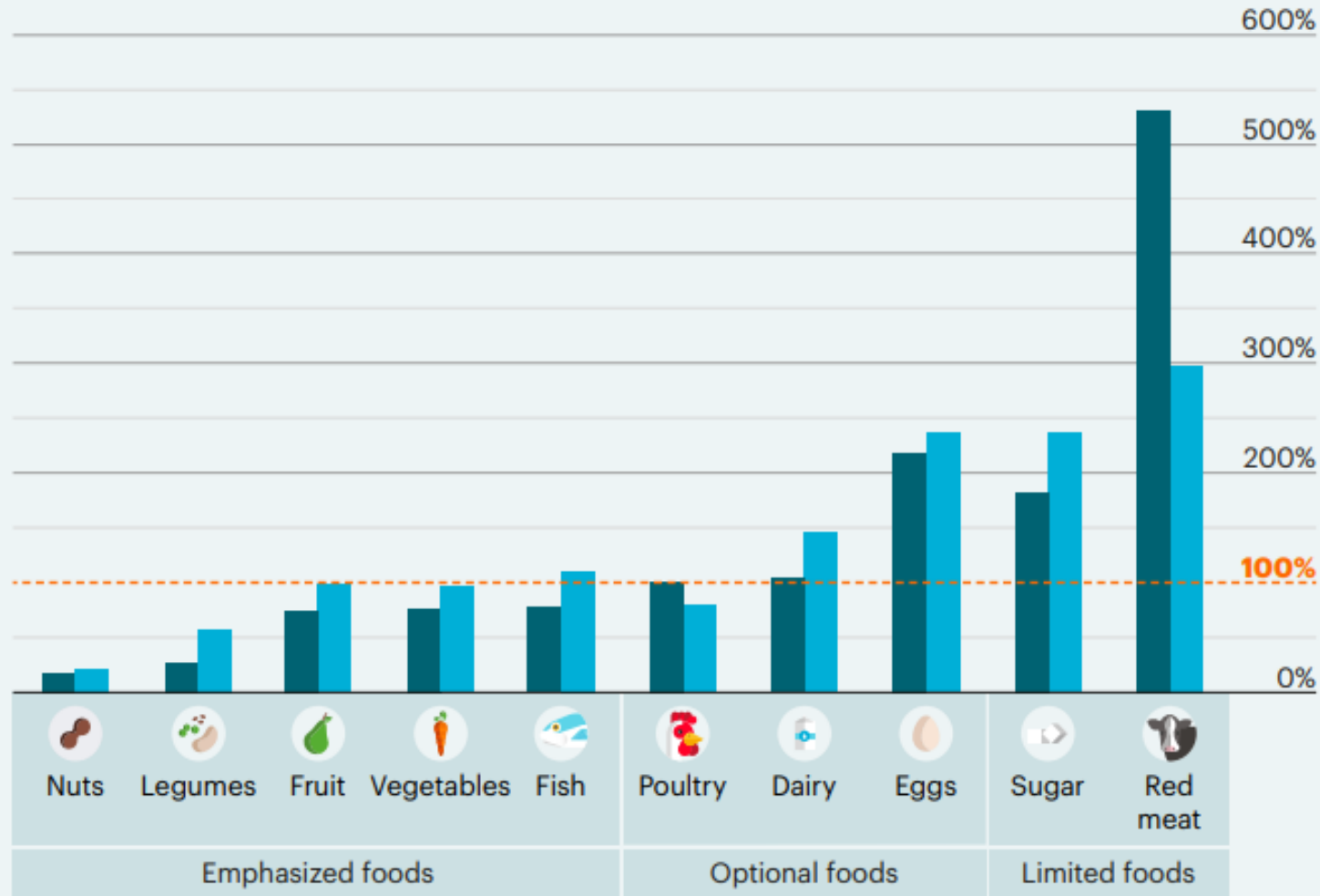
The national dietary guidelines of G20 countries are inconsistent in their dietary recommendations, and few integrate both health and environmental sustainability.

The Eat Lancet Commission Report, 2020.

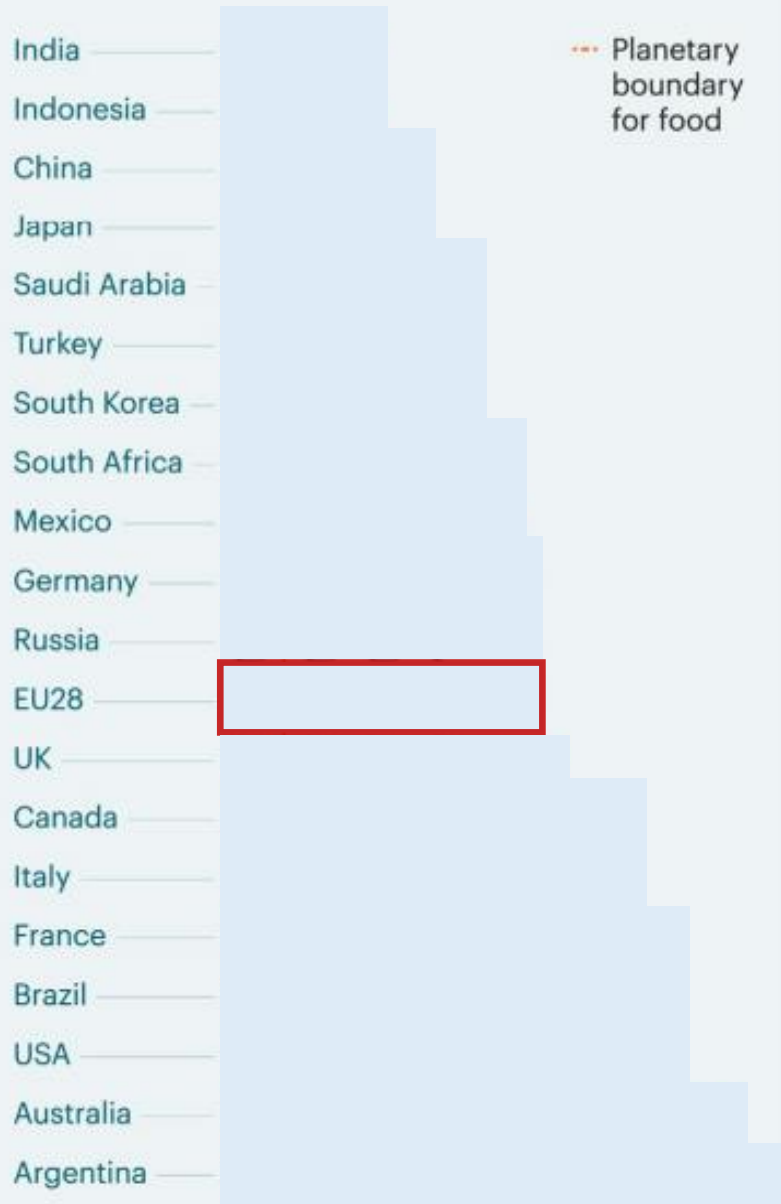
Current consumption and NDGs for G20 countries compared to optimal intake

- Current Consumption
- National Dietary Guidelines
- Planetary Health Diet

% above or below the optimal intake level



The ecological footprint if G20 food consumption patterns are adopted globally



The ecological footprint if NDGs are adopted globally



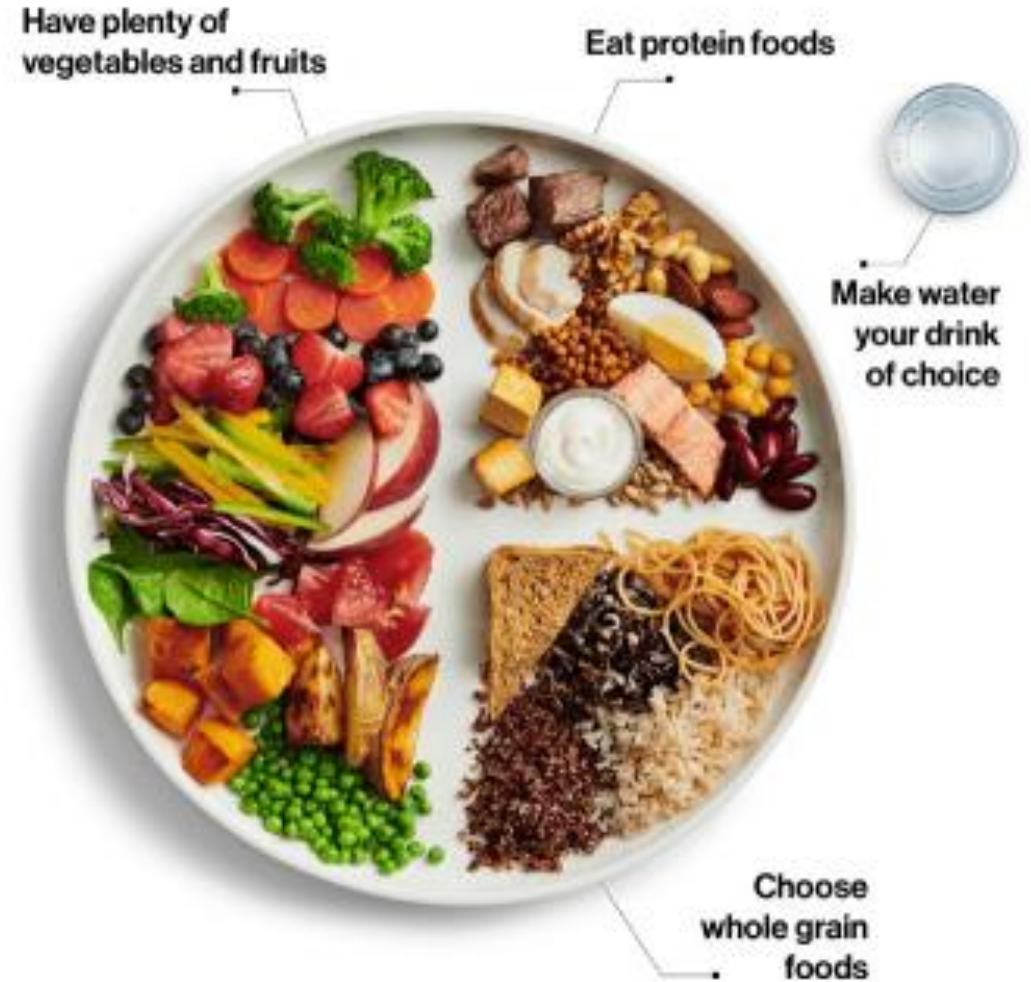
National Dietary Guidelines of Canada

Canada recently launched a food guide with the words “Eat Well. Live Well.” across the top of their guidelines.

Their recommendations are to: have plenty of vegetables and fruits (half of the plate), eat protein foods (quarter of the plate), choose whole-grain foods (quarter of the plate), and make water the drink of choice.

The “guide emphasizes getting protein from plant-based sources such as beans, lentils and nuts, rather than always choosing animal-based foods such as milk, meat and poultry.

The Eat Lancet Commission, 2020.





THANK YOU FOR YOUR ATTENTION!



ADDITIONAL SOURCES

<https://eatforum.org/eat-lancet-commission/>

<https://www.greenpeace.org/international/story/6803/will-europe-lead-the-way-towards-zero-deforestation/>

<https://littleshopofdreams.tumblr.com/post/121888136092>

https://pngtree.com/freepng/yellow-car-cartoon-car-classic-cars-car-illustration_3899207.html

https://www.freepik.com/premium-vector/ecology-friendly-electric-car-modern-transport-vehicle-red-passenger-auto-with-cable-plug-white-illustration_8803400.htm

https://dribbble.com/tags/fossil_fuel_power_station

<https://www.istockphoto.com/illustrations/renewable-energy>

<https://www.foodbusinessnews.net/articles/13143-plant-based-becoming-a-pillar-of-food-infrastructure>

<https://humusz.hu/termekjelzesek>

<https://www.proteinreport.org/research/creating-sustainable-food-future>

<https://east-africa.hivos.org/blog/access-to-healthy-food-crucial-in-the-fight-against-covid-19/>

<https://parenting.firstcry.com/articles/10-best-gardening-activities-for-your-children/>

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<https://eletszepitok.hu/azsia-delkeleti-csucske-vietnam-erdekessegek-furcsasagok-viki-uti-naplojabol/>

<https://www.cumberlandmaine.com/waste-and-recycling/pages/recycling>

<https://medium.com/@abhimanyupanwar/me-before-mother-877a586a1473>

<https://thecookingschool.com/product/plant-based-persian-cookery-2/>