The dietary plan that maintains human health and saves the planet

Minh-Hoang Nguyen, AISDL
https://orcid.org/0000-0002-7520-3844

September 10, 2022

Humans need to take in food and water to survive and grow, so it is detrimental to growth if one does not consume the necessary amount and types of nutrients. Nevertheless, the more food we eat, the more footprints we create on the planet, leading to negative environmental impacts. Scientists estimate that even if all fossil fuel emissions were abolished immediately, emissions from the global food system would make it impossible to restrict warming to 1.5°C. Even achieving the 2°C target would be challenging [1]. Moreover, the greenhouse gas emissions from global food production are also projected to rise by 80% from 2009 to 2050 due to growing population and urbanization [2].

The EAT-Lancet Commission, consisting of 37 nutritionists, ecologists, and other experts from 16 countries, proposed safe operating space for food systems [3]. This space helps to set ranges of food intake to ensure universal human health and a stable Earth system (not passing the planetary boundaries [4]). Eventually, the Commission developed a 2,500-calorie-per-day eating plan for keeping the food systems in a safe operating space. The plan is diverse, largely plant-based, and low in red meat. Specifically, the planetary health dietary plan should contain the following components per day [5]:

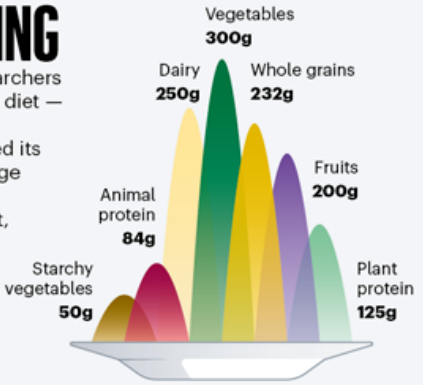
- 300 grams of vegetables
- 250 grams of dairy
- 232 grams of whole grains
- 200 grams of fruit
- 125 grams of plant protein
- 84 grams of animal protein
- 50 grams of starchy vegetables

The Commission also noted that the proposed dietary plant is a reference and should be flexibly tailored to the personal preference and cultures of different populations [3].

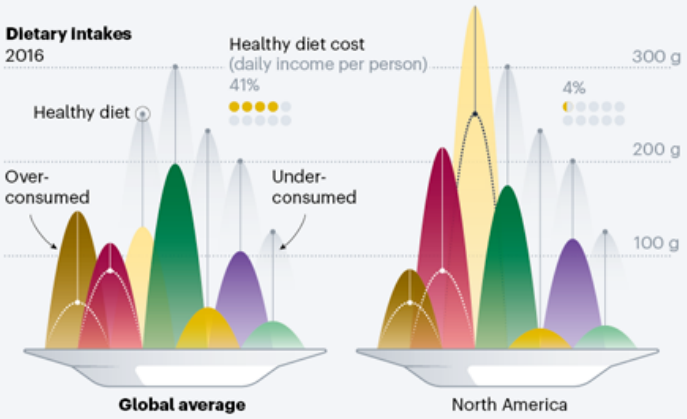
HEALTHY EATING

A commission of food researchers devised a 'planetary health' diet — meant to be nutritious and sustainable — and compared its composition with the average diets in different regions. Further studies showed that, in many regions, following the proposed diet would be prohibitively expensive.

By Kerri Smith
Design by Jasiek Krzysztofiak

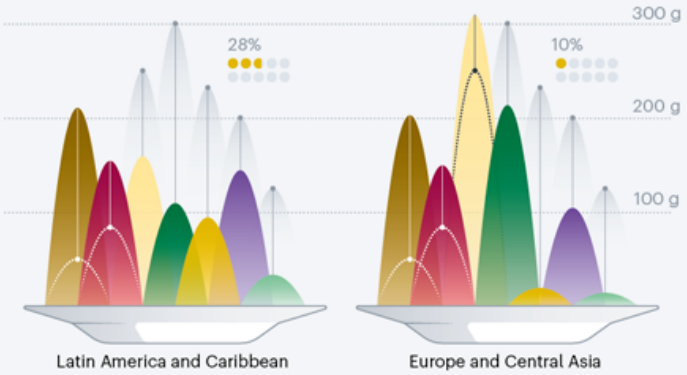


Planetary health diet
grams per day



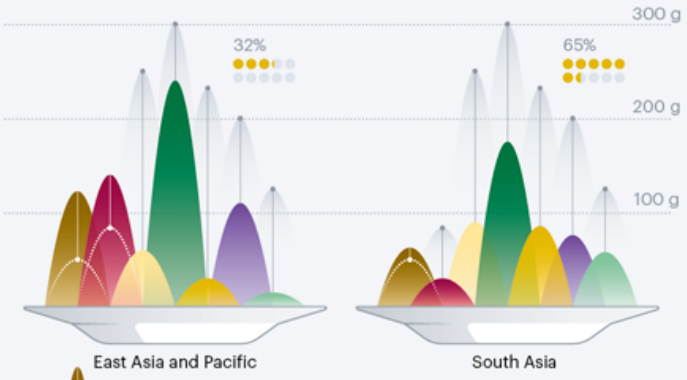
Global average

North America



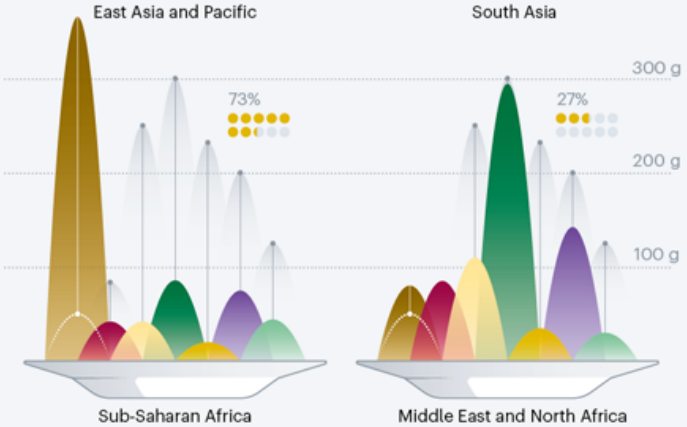
Latin America and Caribbean

Europe and Central Asia



East Asia and Pacific

South Asia



Sub-Saharan Africa

Middle East and North Africa

Region key Middle East and North Africa Europe and Central Asia

Figure: Planetary health diet, retrieved from Vaidyanathan [5] (CC BY 4.0); https://media.nature.com/lw800/magazine-assets/d41586-021-03565-5/d41586-021-03565-5_19903660.png

Even so, changing a person's eating habits is not an easy task, not to mention most of the human population. Humans' thinking and behaviors are greatly influenced by mindsets (or sets of core values), which shape their value systems [6,7]. Therefore, building environmental-oriented mindsets among populations is crucial for the planetary health diet to be widely accepted and applied [8].

References

[1] Clark MA, et al. (2020). Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets. *Science*, 370(6517), 705-708. https://www.science.org/doi/10.1126/science.aba7357

[2] Tilman D & Clark M. (2014). Global diets link environmental sustainability and human health. *Nature*, 515, 518–522. https://www.nature.com/articles/nature13959

[3] Willett W, et al. (2019). Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems. *Lancet*, 393(10170), 447-492. https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31788-4/fulltext

[4] Steffen W, et al. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), 1259855. https://www.science.org/doi/10.1126/science.1259855

[5] Vaidyanathan G. (2021). What humanity should eat to stay healthy and save the planet. *Nature*, 600, 22-25. https://www.nature.com/articles/d41586-021-03565-5

[6] Vuong QH. (2022). *Mindsponge theory*. AISDL. https://books.google.com/books?id=OSiGEAAAQBAJ

[7] Nguyen MH, et al. (2022). Introduction to Bayesian Mindsponge Framework analytics: An innovative method for social and psychological research. *MethodsX*, 9, 101808. https://www.sciencedirect.com/science/article/pii/S2215016122001881

[8] Vuong QH. (2021). The semiconducting principle of monetary and environmental values exchange. *Economics and Business Letters*, 10(3), 284-290. https://reunido.uniovi.es/index.php/EBL/article/view/15872