

NUTRITION AND PLANETARY HEALTH

The World Health Organisation (WHO) has stated that climate change is the biggest threat facing humanity.



Unstable and extreme weather conditions will jeopardise the world's food and water supply. Extreme weather contributes to crop failure, flooding and the spread of zoonotic disease (1). The WHO estimates that between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress.



The effect of agriculture on the environment?

The global food system is responsible for about a third of all greenhouse gas emissions, so transformation of this system is extremely important if we want to stem the flow of climate change (2). More than half of the emissions in the food sector come from industrial livestock farming to produce animal food products. This includes enormous requirements for water, land, feed and energy - as well as the production of waste products such as methane gas (3).



What do we need to do to prevent climate change?

We can avoid most of these crises by stabilising global warming temperatures to a maximum of 1.5 °C. For this to happen, all economic and societal sectors must cut carbon dioxide emissions dramatically. To reach the goals of the Paris Climate Agreement, global emissions need to be down to 50% by 2030 and at the latest down to (net) zero by 2050 (4). At this point, none of the countries aligned with the Paris Agreement are on track to reach these targets (5).

"The global food system is responsible for about a third of all greenhouse gas emissions, so transformation of this system is extremely important if we want to stem the flow of climate change (2)."

We cannot wait for governments to make changes. We can make climate change a priority for ourselves and our families. **Excluding animal products from our diets is the single biggest step any one of us can make to reduce our food-related emissions (6).** Through a global switch to plant-based nutrition, we would cut emissions of the food system to a level aligned with the Paris Climate Agreement.

Transitioning to plant-based nutrition has the potential to reduce the following (6).



Food system land use by **76%**



Food system greenhouse gas emissions by **49%**



Eutrophication (harmful algae growth) by **49%**



Green and blue water use by **21%** and **14%**, respectively

To effectively tackle the climate crisis, the future crisis of healthcare and the greatest health threat in human history, we need to empower as many people as possible to adopt whole food, plant-based nutrition.



Not only is plant-based nutrition good for the environment, it is also good for our health. A whole food plant-based diet has been proven to prevent and control non-communicable diseases such as heart disease and diabetes (7).

References

1. Climate change and health [Internet]. [cited 2023 Mar 9]. Available from: <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
2. Crippa M, Solazzo E, Guizzardi D, Monforti-Ferrario F, Tubiello FN, Leip A. Food systems are responsible for a third of global anthropogenic GHG emissions. *Nat Food*. 2021 Mar;2(3):198–209.
3. Gerber PJ, Food and Agriculture Organization of the United Nations, editors. Tackling climate change through livestock: a global assessment of emissions and mitigation opportunities. Rome: Food and Agriculture Organization of the United Nations; 2013. 115 p.
4. The Paris Agreement | UNFCCC [Internet]. [cited 2023 Mar 8]. Available from: <https://unfccc.int/process-and-meetings/the-paris-agreement>
5. Nations U. Net Zero Coalition [Internet]. United Nations. United Nations; [cited 2023 Mar 9]. Available from: <https://www.un.org/en/climatechange/net-zero-coalition>
6. Gibbs J, Cappuccio FP. Plant-Based Dietary Patterns for Human and Planetary Health. *Nutrients* [Internet]. 2022 Apr [cited 2023 Mar 8];14(8). Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9024616/>
7. Plant-based diets and their impact on health, sustainability and the environment.pdf [Internet]. [cited 2023 Mar 8]. Available from: <https://apps.who.int/iris/bitstream/handle/10665/349086/WHO-EURO-2021-4007-43766-61591-eng.pdf?sequence=1&isAllowed=y>