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COVID-19 and the future of food systems at the UNFCCC



The COVID-19 pandemic is both a wake-up call to the vulnerability of our food systems and an insight into the ongoing threat posed by the climate crisis to nutritional security and our collective health. Although these two crises threaten food systems through different mechanisms, they share a disproportionate impact on the most vulnerable and emphasise the need for a global food systems transformation.¹ As a result of the COVID-19 pandemic, market supply chain and trade disruptions have been predicted to limit food accessibility, especially in areas that are already substantially affected by food insecurity.² Furthermore, some areas of the world could experience an increase in food prices and global models predict that the number of people living in poverty could substantially increase—exacerbating poverty and hunger in developing countries.³ Over the course of the coming year, our food system will be put to the test and we must ask whether a food system that is already strained is capable of providing for a projected population of 10 billion people by 2050, in the context of a rapidly changing climate.

A 2019 *Lancet* Commission⁴ emphasised the crucial role of food systems in relation to both human and planetary health. Food insecurity and low-quality diets cause undernutrition, micronutrient deficiencies, and rising overweight and obesity rates, which in turn are notable risk factors for admission to hospital and death due to complications from COVID-19.⁵ Not only do our food systems fail to sustain us nutritionally, but they are also the single greatest driver of environmental degradation, causing unprecedented biodiversity loss, environmental pollution, and water shortages.⁶ In 2019, the EAT-*Lancet* Commission, *Food in the Anthropocene: healthy diets from sustainable food systems*⁴ proposed the planetary health diet. The diet emphasises a high intake of fruits and vegetables, in addition to legumes, nuts, fish, and whole grains, and calls for reduced animal-source food consumption (in high-income countries), highly-processed foods, and free sugars.⁴ Furthermore, the report's authors proposed that it might not be possible to meet the Paris Agreement without substantial changes to each of agricultural production practises, dietary patterns, and food loss and waste.

The UN Framework Convention on Climate Change (UNFCCC) is the primary global forum dedicated to climate change. Despite increasing attention to food security in UNFCCC processes and outcomes over the past decade, including in the preamble of the Paris Agreement and Koronivia workshops, dietary practises have thus far been relatively neglected.^{7,8} The Intergovernmental Panel on Climate Change identified that dietary practises could mitigate up to the equivalent of approximately 15% of current greenhouse gas emissions per year by 2050.⁶ Alongside curbing air pollution, greater adoption of healthy and sustainable diets is potentially the greatest synergy between human and planetary health.

Before the Paris Agreement was adopted at Conference of Parties (COP)21 in 2015, the International Federation of Medical Students Associations' (IFMSA) delegation to the UNFCCC COP16 in 2010 conducted a survey which addressed the importance of health to the climate agenda.⁹ The IFMSA delegation to the 2019 UNFCCC COP25 in Madrid undertook a follow-up survey to explore participants understanding of, and attitudes towards sustainable food systems.

The survey was distributed in public areas during both weeks of COP25. We received 278 responses (1% of total attendees), of which 210 were non-governmental organisation delegates, 57 were party delegates, and 11 were UN Specialised Agency Delegates. Respondents represented 84 countries. Further details regarding survey strategy, respondent details, and full results are presented in the appendix (pp 1–2).

We found a statistically significant increase in non-governmental organisations (5.32/10 in 2019 vs 3.85/10 in 2011; $p < 0.0001$) and Party delegates' (6.04/10 in 2019 vs 4.77/10 in 2011; $p = 0.0006$) views about the importance of health in UNFCCC negotiations and outcomes (appendix p 1). There was also a statistically significant increase in perceptions of how important health should be in UNFCCC processes in the non-governmental organisation delegate group (9.02 in 2019 vs 8.19 in 2011; $p < 0.0001$; appendix (p 1). Although we appreciate our small sample size, we conclude that as presence and representation of health grows at UNFCCC meetings, delegates are considering health to be increasingly important to climate change

See Online for appendix

mitigation and adaptation. We believe the topic should become even more prominent.

All delegates—including farmers and individuals from low-income and middle-income countries—believed that dietary practises should be almost as important as food production practises in UNFCCC negotiations and outcomes (Farmers Q6 7·2/10 vs Q8 6·8/10, individuals representing low-income and middle-income countries Q6 8·39/10 vs Q8 7·75, overall delegate average Q6 8·30/10 vs Q8 7·58/10 (appendix p 2). Propositions to bring about global dietary shifts have drawn criticism surrounding the viability of such changes in low-income and middle-income countries, as well as the potential impact on agricultural livelihoods. Although further research is needed to understand the barriers and facilitators to dietary changes amongst diverse populations, this support from farmers and the representatives from low-income and middle-income countries suggests that including dietary changes in UNFCCC processes and outcomes could receive broad-based support from COP attendees.

Although only 36·2% of delegates surveyed were familiar with the *EAT-Lancet* Planetary Health Diet, participants indicated that their health and personal environmental footprints can be motivating factors towards dietary change (appendix p 2). Once participants were introduced to the *EAT-Lancet* nutritional table and planetary health plate, they expressed an overall willingness to adopt the planetary health diet (average score for all delegates 7·08/10; appendix p 2).

All groups, including farmers and delegates from low-income and middle-income countries, indicated that given the health and environmental effects of food systems, the UNFCCC should cater food in accordance with the planetary health diet at future events (average score for all delegates 8·39/10, farmers 7·9/10, representatives from low-income and middle-income countries 8·6/10; appendix p 2).

There is both a need and opportunity to pursue food systems change considering the threats to food security brought about by COVID-19. There is an imminent need to take planetary health into account and pave the way for a green post-pandemic recovery with clear commitments towards healthy, equitable, and sustainable food systems. We call on the UNFCCC to mobilise parties to face this challenge with a rational

and collaborative approach. As such, we make the following recommendations.

Firstly, as evidenced by our survey, the prominence of health in climate change negotiations is increasing. Furthermore, the respondents supported increasing attention to health in climate negotiations and outcomes, which could extend to the inclusion of health in Nationally Determined Contributions (NDCs). To meet the Paris agreement, food systems, including dietary change, must be included in NDCs.

Secondly, we commend the UNFCCC on recognising the need to address agriculture in climate change negotiations with the instigation of the Koronivia workshops. However, at present these workshops only address food production practices. Evidence has shown that meeting the Paris Agreement is not possible without widespread dietary change; we therefore strongly encourage the inclusion of food production, food loss and waste, and dietary changes in negotiations related to Agriculture, Forestry and Other Land Use at the UNFCCC.

Finally, we call upon the UNFCCC to mandate that catering at all current and future events follows the latest guidance on healthy and sustainable diets. As the central forum for climate action, the UNFCCC must recognise the importance of dietary change as a mitigation strategy and reflect this in the food offered at their events. Delegates who were surveyed at COP25 considered dietary changes to be important to UNFCCC negotiations and outcomes and were open to personally making changes in line with the planetary health diet. The authors have unanimously observed that UNFCCC events are the exception, rather than the rule, among climate change focused events regarding their neglect of sustainable food procurement. Therefore, we call on COP26 in Glasgow to set a precedent and ongoing standard for catering at future UNFCCC events. COVID-19 should be a wake-up call to reinvigorate efforts towards healthy and sustainable food systems, and the UNFCCC is an excellent place to start. Considering the postponement of COP26 to late 2021 because of COVID-19, government mitigation of the accelerating impacts of climate change and consideration of the vulnerability of our food systems is more important than ever.

We declare no competing interests.

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