Higher education institutions need to include food in climate policy

David A. Cleveland^{1*}, Sapna E. Thottathil², Jennifer A. Jay³

 ¹Environmental Studies Program and Department of Geography, University of California, Santa Barbara, CA 93106–4160, USA.
²Office of the President, University of California, Oakland, CA 94612, USA.
³Civil and Environmental Engineering, University of California Los Angeles, CA 90095, USA.

*Corresponding author. Email: <u>cleveland@.ucsb.edu</u>

eLetter online https://science.sciencemag.org/content/370/6517/705/tab-e-letters

(25 November 2020)

Response to :Clark, M.A., Domingo, N.G.G., Colgan, K., Thakrar, S.K., Tilman, D., Lynch, J., Azevedo, I.L., and Hill, J.D. 2020. Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets. *Science* 370(6517):705-708. DOI: 10.1126/science.aba7357.

Clark et al. (6 November, p. 705) add to the increasing evidence that immediate, "extensive and unprecedented" food system change needs to be part of climate policy to meet Paris Agreement goals.

Higher education institutions (HEIs) are key to making this policy change (1)—much of the supporting research is generated by HEIs, HEIs consider themselves leaders in climate change mitigation policies (2), and HEIs have the potential to both encourage food choices, and the purchasing power to promote food system changes, that support bold climate and food policies (3).

However, while many HEIs have policies promoting healthier and more climate-friendly food, frequently driven by student demand (4), campuses are often dominated by ultraprocessed and animal-source foods (5) that drive climate change and poor health (6).

Furthermore, most HEI climate policies include only Scope 1 and 2 emissions (on-site energy generation and imported energy), and not food or other Scope 3 indirect emissions (or sometimes just the employee commute and air travel portions) (7), even though Scope 3 comprise the majority of institutional emissions (8). This leads to distorted decisions overemphasizing costs, and failing to reach goals (9), as Clark et al. emphasize.

A major obstacle to policy integration is that decisions about food on campus are often constrained by the need to generate revenue, and the COVID-19 pandemic has dramatically reduced HEI income. However, food system changes that are good for the climate can also save money—two of Clark et al.'s five recommended changes (plant-rich diets, reduced food waste) could reduce per capita food expenses on campus (1).

Even when needed food system changes, e.g. some climate-friendly production methods, could increase HEI food costs, analysis in a global, public good framework would show net financial benefit, many environmental, health and social co-benefits (6), and better align with HEIs mission statements (*10*).

A 2019 Climate Emergency Letter (*11*) representing hundreds of HEIs world-wide stated "the need for a drastic societal shift to combat the growing threat of climate change." Clark et al. confirm that food system change is an essential part of that shift. HEIs need to help lead this shift by beginning now to make the "extensive and unprecedented" food system changes needed for a 67% chance of meeting Paris goals.

References

- 1. D. A. Cleveland, J. A. Jay, *Climate Policy*, 1 (2020).
- 2. SN UC3, *The University Climate Change Coalition* (2020), https://secondnature.org/initiative/uc3-coalition/, date accessed: 2020 November 8.
- 3. S. E. Thottathil, in *Institutions as Conscious Food Consumers* S. E. Thottathil, A. M. Goger, Eds. (Academic Press, 2019) pp. 3-20.
- 4. K. Middleton, E. Littler, in *Institutions as Conscious Food Consumers* S. E. Thottathil, A. M. Goger, Eds. (Academic Press, 2019) pp. 307-326.
- 5. T. M. Horacek *et al.*, *Public Health Nutrition* **16**, 1186 (2013/007/001, 2013).
- 6. M. Springmann, H. C. J. Godfray, M. Rayner, P. Scarborough, *Proceedings of the National Academy of Sciences* **113**, 4146 (March 21, 2016, 2016).
- AASHE, The Sustainability Tracking, Assessment & Rating System. STARS Report Content (2019), https://reports.aashe.org/institutions/datadisplays/2.0/content/?institution_ms_institution_country=United+States&reporting_field =4973, date accessed: 2019 March 10.
- 8. GHGP, "Corporate Value Chain (Scope 3) Accounting and Reporting Standard. Supplement to the GHG Protocol Corporate Accounting and Reporting Standard" (World Resources Institute; World Business Council for Sustainable Development, 2011).
- 9. M. Karlsson, E. Alfredsson, N. Westling, *Climate Policy*, 1 (2020).
- 10. J. H. Marks, *The Perils of Partnership. Industry Influence, Institutional Integrity, and Public Health* (Oxford University Press, New York, 2019).
- 11. EAUC, *Climate Change Letter: Raising a flag for the Climate Emergency* (2019), https://www.eauc.org.uk/climate_change_letter_raising_a_flag_for_the_cl, date accessed: 2020 February 21.