



2-2023

Latest Research: Summary 2. Importance of Food-Demand Management for Climate Mitigation

Follow this and additional works at: <https://scholarsarchive.byu.edu/joni>



Part of the [Civic and Community Engagement Commons](#), [International Relations Commons](#), and the [Nonprofit Administration and Management Commons](#)

Recommended Citation

(2023) "Latest Research: Summary 2. Importance of Food-Demand Management for Climate Mitigation," *Journal of Nonprofit Innovation*: Vol. 3: Iss. 1, Article 3.

Available at: <https://scholarsarchive.byu.edu/joni/vol3/iss1/3>

This Literature Reviews is brought to you for free and open access by the Journals at BYU ScholarsArchive. It has been accepted for inclusion in Journal of Nonprofit Innovation by an authorized editor of BYU ScholarsArchive. For more information, please contact ellen_amatangelo@byu.edu.

Latest Research: Summary 2

Importance of Food-Demand Management for Climate Mitigation

From Bojana Bajzelj, Keith Richards, Julian Allwood, Pete Smith, John Dennis et al., *Nature Climate Change*, Vol. 4 (2014), <https://doi.org/10.1021/es400399h>.

Context

As the global population rises, demand for food increases across the globe. This demand simultaneously expands unsustainable agriculture practices, which contribute significant amounts of carbon emissions to the atmosphere, primarily through the increase in the number of livestock and production of livestock feed.



Much of current research on climate change focuses on energy supply and increasing efficiency, but relatively few papers have considered reducing demand, particularly in food and land-use scenarios. This new insight may be necessary given expected increases in population and food demand by 2050.

A strategy for reducing demand for animal products and other energy-rich foods (like sugars and saturated fats) is through encouraging large-scale dietary changes, which also reduce food waste. Consumption of energy-rich foods, waste

from agricultural processes, and food waste are all significant contributors to the issue of climate change and inefficient food production. The adoption of “healthy diets” with fewer animal products, specifically in heavily industrialized regions or countries where greater wealth is concentrated and more energy-rich foods are consumed, can greatly reduce greenhouse gas emissions compared to strategies focused on closing crop yield gaps.

Key Takeaways

- Current food yields are not enough to meet global demand in 2050, requiring more intensive agricultural expansion. Because agricultural expansion is the main driver of losses of biodiversity and a major contributor to climate change, expanding current agricultural practices to meet growing demand is not ideal.
- Current strategies focus on closing crop yield gaps, but closing these gaps is not enough to combat climate change and deforestation if combined with increasingly higher use of crop and pastureland for energy-rich but inefficient foods, such as livestock.

Application

Organizations interested in reducing demand for energy-rich foods can consider several strategies. First, they can educate the public about healthier diet options that require less land and resources to produce, such as wheat, beans, and nuts.

Second, organizations can lobby local governments to include healthier and more efficient food options in schools and other publicly funded institutions and events.

Finally, organizations can provide tools, training, and funding to those interested in transitioning to more sustainable forms of food production that rely less on livestock and livestock feed.