

The Scoop on Climate Justice

A Local Vegan Ice Cream Shop’s Role in a Changing World

ELIZABETH VOSS AND SARAH THOMFORDE IN
CONVERSATION WITH ALINE JUNG

The concepts of sustainability and sustainable development have been around for a long time, but came to wider prominence after the publication of the 1987 Brundtland report, which states, “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”¹, and was further refined by the UN sustainable development goals to include the concept of “living well within certain ecological boundaries”². Deeply intertwined with sustainable development is the concept of climate justice. Climate justice extends beyond scientific realities of a warming planet into ethical dimensions of who bears climate change’s burdens and who benefits from its solutions. It highlights disproportionate impacts on vulnerable communities while advocating for equitable responses. One claim of climate justice is a claim to mitigation. In practical terms this means finding ways to reduce greenhouse gas emissions (GGEs) to stop global warming and thereby protect those most vulnerable from harm. Because we in the Global North are responsible for the large majority of GGEs, we are ethically obligated to take action against climate change. While policy and structural change are necessary to bring about large-scale mitigation, we as individuals can and must also take action. One way is through our diets, and small local enterprises can also contribute meaningfully to this global challenge. This essay explores the climate justice implications of “enila,” a vegan ice cream shop in Basel, Switzerland, run by Aline Jung, examining how such a business contributes to a more just and sustainable food future. We begin by discussing the environmental impact of the food system, followed by an analysis of

enila’s role in providing positive change towards climate justice. The paper ends by providing some reflection and limitations to the role a vegan diet and a single vegan restaurant play within the climate justice movement.

The Food System’s Environmental Impact

The global food system significantly contributes to environmental degradation, accounting for 21-37% of total anthropogenic GGEs³, using approximately half of Earth’s habitable land⁴, and consuming over 70% of global freshwater withdrawals⁵. The Traditional Western Pattern Diet (WPD), characterized by high meat, dairy, and processed food consumption⁶, carries a particularly heavy ecological burden. In contrast, vegan diets demonstrate 50-75% lower GGEs, 75% lower land use, and 50% lower eutrophication potential than high-meat diets⁷. While complexities exist, evidence strongly points to ecological advantages in shifting toward plant-centric eating.

A person eating a plant-based diet requires 60-80% less agricultural land to sustain their diets than an omnivore⁸, because instead of growing food to feed livestock, the plant-based food goes directly to humans. The vast majority of vegans chose this lifestyle for animal rights and not environmental reasons: 68% vs 9.7%⁹. Regardless of the intentions for choosing a vegan diet, the beneficial impacts on climate justice are the same. The graph below provides an overview of GGEs per kg of food product for various vegan and non-vegan foodstuffs¹⁰.

1 (Brundtland, p. 41)

2 (United Nations)

3 (Intergovernmental Panel on Climate Change, “Chapter 5 - Food Security”)

4 (Halpern et al.)

5 (Halpern et al.)

6 (Nichols)

7 (Aydoğdu and Gezmen Karadağ)

8 (Aleksandrowicz et al.)

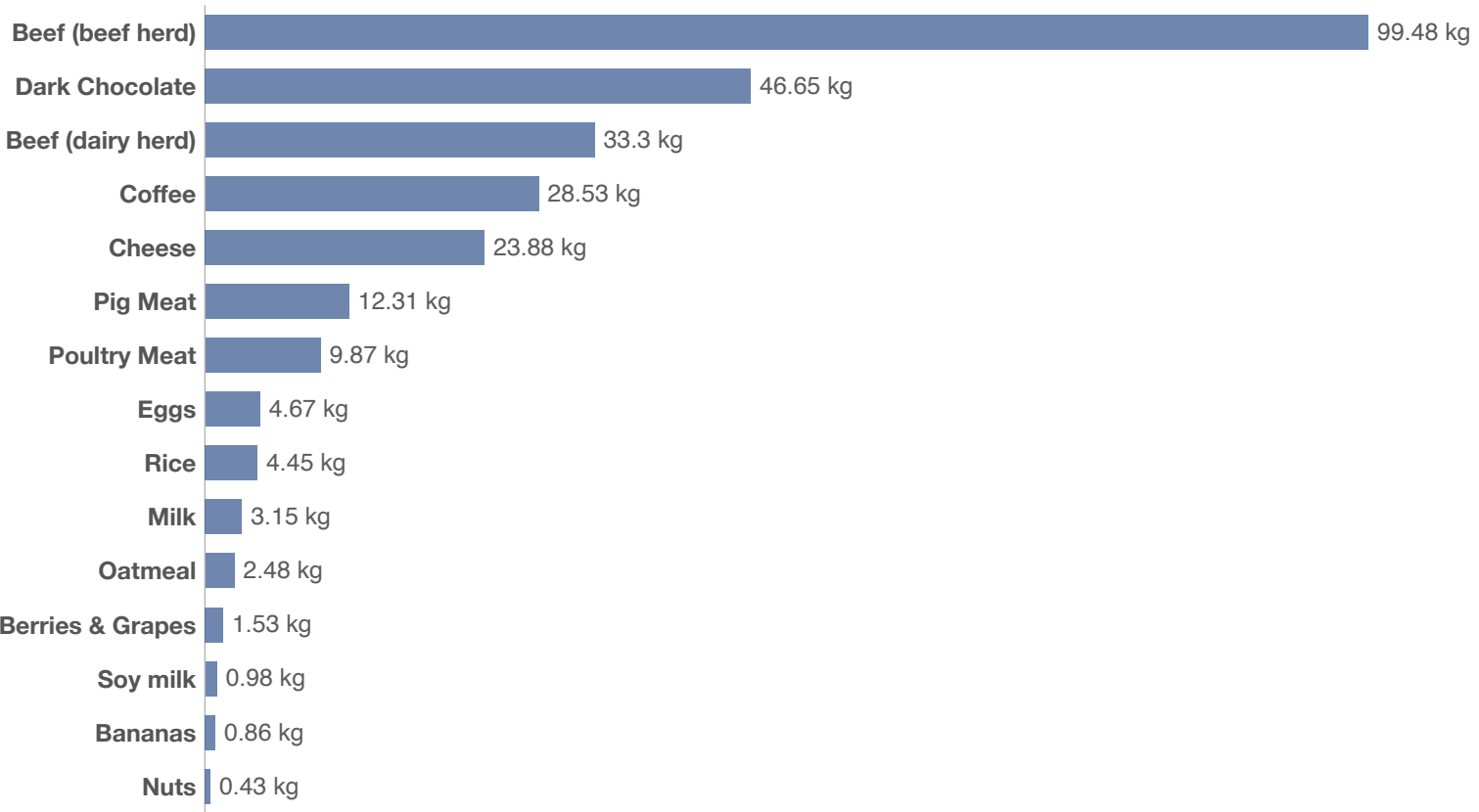
9 (“Why People Go Vegan: 2019 Global Survey Results”)

10 (Ritchie et al.)

Greenhouse gas emissions per kilogram of food product

Our World in Data

Greenhouse gas emissions¹ are measured in kilograms of carbon dioxide-equivalents². This means non-CO₂ gases are weighted by the amount of warming they cause over a 100-year timescale.



Data source: Poore and Nemecek (2018)

OurWorldinData.org/environmental-impacts-of-food | CC BY

Enila: A Microcosm of Solutions

Opened in May 2022, “enila” represents more than a business—it’s a manifestation of Ms. Jung’s ethical commitments, which evolved from personal health and animal rights concerns to a broader understanding of veganism’s benefits ¹¹. By offering exclusively vegan ice cream, enila directly addresses dairy’s high environmental impact, a significant component of conventional ice cream and the WPD. Dairy production generates substantial methane emissions and requires extensive resources for feed production, making plant-based alternatives significantly more environmentally friendly¹².

Enila is Switzerland’s first 100% vegan ice cream shop and was inspired by a visit to a vegan ice cream shop while Ms. Jung was on holiday in Greece. Encouraged by her mother, who is also an entrepreneur, Ms. Jung bought an ice cream machine and started experimenting with recipes for the ice cream base as well as vegan mix-ins, sauces, and toppings. Since Ms. Jung already enjoyed cooking and baking, this new venture combined several interests

successfully. Enila’s ice cream is handmade in small batches of 10 liters each. She is able to produce a maximum of 140 liters of ice cream per day. However, since she also has to make the ice cream bases, prepare the mix-ins and keep up with the administrative work of running a business, she isn’t able to produce at maximum capacity every day she is in the shop. She has eight permanent flavors and four seasonal flavors that change monthly¹³.

Enila’s operational choices amplify its positive climate impact. Jung crafts her own cashew milk base and uses store-bought coconut milk¹⁴, aligning with findings that plant-based milks generally have lower environmental impacts than dairy, particularly regarding GGEs and land use¹⁵. Her decision to source fair-trade cashews introduces social justice into her supply chain, ensuring better prices and working conditions for farmers in developing countries¹⁶—regions often most vulnerable to climate change, as illustrated by the image below¹⁷.

Furthermore, enila’s commitment to in-house production of mix-ins and emphasis on local and

11 (Jung)

12 (Ritchie et al.)

13 (Jung)

14 (Jung)

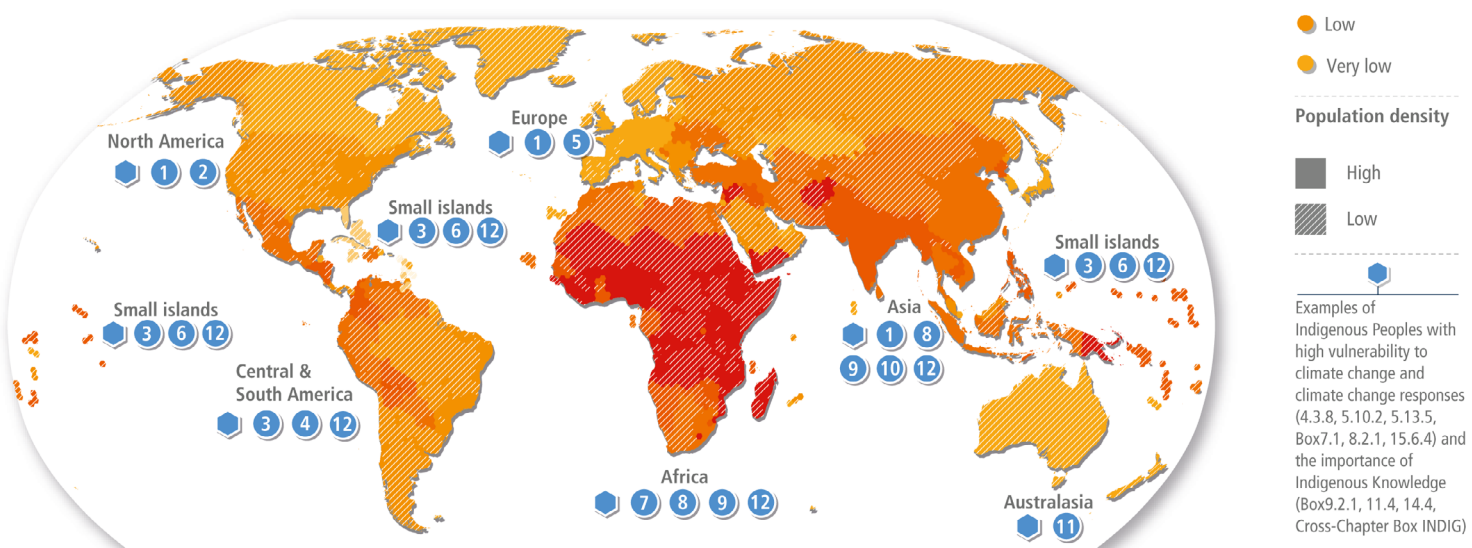
15 (Aydoğdu and Gezmen Karadağ)

16 (Fairtrade Foundation)

17 (Intergovernmental Panel on Climate Change, “Global Map of Vulnerability”)

Observed human vulnerability differs between and within countries and strongly determines how climate hazards impact people and society

(a) Map of observed human vulnerability based on two comprehensive global indicator-systems using national data, plus examples of selected local vulnerable populations and Indigenous Peoples



Examples of local vulnerable populations | Examples of some aspects of vulnerability | Chapter references

- | | |
|---|---|
| <p>1 Indigenous Peoples of the Arctic health inequality, limited access to subsistence resources and culture CCP 6.2.3, CCP 6.3.1</p> <p>2 Urban ethnic minorities structural inequality, marginalisation, exclusion from planning processes 14.5.9, 14.5.5, 6.3.6</p> <p>3 Smallholder coffee producers limited market access & stability, single crop dependency, limited institutional support 5.4.2</p> <p>4 Indigenous Peoples in the Amazon land degradation, deforestation, poverty, lack of support 8.2.1, Box 8.6</p> <p>5 Older people, especially those poor & socially isolated health issues, disability, limited access to support 8.2.1, 13.7.1, 6.2.3, 7.1.7</p> <p>6 Island communities limited land, population growth and coastal ecosystem degradation 15.3.2</p> | <p>7 Children in rural low-income communities food insecurity, sensitivity to undernutrition and disease 5.12.3</p> <p>8 People uprooted by conflict in the Near East and Sahel prolonged temporary status, limited mobility Box 8.1, Box 8.4</p> <p>9 Women & non-binary limited access to & control over resources, e.g. water, land, credit Box 9.1, CCB-GENDER, 4.8.3, 5.4.2, 10.3.3</p> <p>10 Migrants informal status, limited access to health services & shelter, exclusion from decision-making processes 6.3.6, Box 10.2</p> <p>11 Aboriginal and Torres Strait Islander Peoples poverty, food & housing insecurity, dislocation from community 11.4.1</p> <p>12 People living in informal settlements poverty, limited basic services & often located in areas with high exposure to climate hazards 6.2.3, Box 9.1, 9.9, 10.4.6, 12.3.2, 12.3.5, 15.3.4</p> |
|---|---|

seasonal ingredients demonstrates efforts to minimize its footprint. Using local Swiss berries in summer and sourcing coffee from Basel's Kaffeemacher:innen reduces reliance on energy-intensive, pre-packaged foods and supports local economy resilience. While production emissions and dietary choices remain dominant factors in overall environmental impact, local sourcing can reduce transportation emissions and foster community strength.

Waste reduction represents another area where enila demonstrates responsible practices. The shop uses biodegradable paper products for takeaways and ceramic and glass dishes for in-house consumption, including reusable glass drinking straws. Non-coffee beverages come in glass bottles or aluminum cans, which have higher recycling rates than plastic.

Climate Justice Implications

Enila's climate justice implications are multifaceted. First, regarding mitigation, the shop directly contributes to reducing GGEs by offering products with inherently lower carbon

and land footprints. Each vegan ice cream scoop chosen over a dairy-based alternative represents a tangible reduction in demand for resource-intensive animal agriculture. Widespread adoption of diets low in animal products could yield global GGE mitigation potentials of 4-8 GtCO₂e annually by 2050¹⁸, and enila helps foster this dietary shift by making vegan options appealing and accessible.

Second, regarding equity and access, enila serves diverse clientele, including neighbors, tourists, and individuals with dairy intolerances, thereby normalizing and promoting plant-based eating within its community. Climate justice demands that sustainable options become accessible to broader society¹⁹, not merely remain niche products for the affluent. Local businesses like enila can tailor offerings to community needs and preferences. Jung's involvement in a loose "vegan restaurant alliance" with other Basel businesses like Mystify and Vegitat suggests collective efforts to build a supportive ecosystem for plant-based choices, enhancing their visibility and accessibility. Further, enila opened in the same building and at the same time as Chemiserie, a buy/sell/trade

¹⁸ (Intergovernmental Panel on Climate Change,
¹⁹ (United Nations)

shop specializing in recycled fashion. Per the World Economic Forum, using recycled content in clothing can reduce CO2 by up to 80%, as well as reducing chemical and water use, improving soil quality, and stopping the diversion of water from surface and groundwater sources²⁰. Offering eco-friendly food and clothing in a neighborhood helps normalize making these conscious decisions.

Third, enila challenges dominant food narratives. The WPD, with its reliance on animal agriculture, is deeply entrenched culturally and economically. Small independent businesses successfully modeling alternatives demonstrate the viability and appeal of different eating patterns. Jung’s journey from personal health quest to vegan entrepreneurship illustrates how individual actions can seed local change. Her business, approaching profitability after three years, exemplifies how sustainable practices can align with economic viability²¹.

Limitations and Context

Despite its positive contributions, limitations exist. Not all vegan diets are equally sustainable—environmental footprints vary based on crop type, farming practices, and transportation methods. While enila makes commendable efforts, the full lifecycle assessment of every ingredient remains complex. For instance, coconut milk production raises questions about sustainable harvesting and labor practices in some regions.

Moreover, one small ice cream shop cannot single-handedly reverse global food system impacts. Meaningful change requires widespread adoption of sustainable diets, sustainable agricultural practices, and drastic reductions

in food waste. More citizens of the Global North becoming “reductionist” would have a larger impact than a smaller population being vegan.

Enila’s significance lies in its role as a catalyst, educator, and alternative provider. The shop’s focus on quality and manageable production within its existing space reflects a sustainable business ethos contrasting with the growth-at-all-costs mentality driving many unsustainable practices in the food industry.

Conclusion

Climate justice requires action on various fronts to stop environmental destruction, reduce greenhouse gas emissions and create a sustainable and just world. Within the food and agriculture sector, there are various leverage points that can be used to reduce GGEs and thereby mitigate climate change. In this article, we discuss diet as a form of climate activism, specifically veganism, as part of the transformation to a sustainable food system. While governance and policy change are absolutely necessary to reduce GGEs and bring about a just transformation on a large scale, smaller, local action is a vital part of the movement. Aline Jung’s enila serves as a compelling example of how business practices aligned with vegan principles can positively contribute to climate justice. By addressing dairy’s high environmental footprint, conscious sourcing, waste reduction, and community focus, enila enhances its positive impact on the climate justice movement. Local enterprises like enila are indispensable for translating ecological data and ethical imperatives into tangible experiences, demonstrating that choices aligning with planetary health and social equity can also be delicious, one scoop at a time.

20 (Hua and Chatterji)

21 (Jung)

Claude, version 3.7, Sonnet: via <https://claude.ai/new>

Help with refining Ms. Voss's initial draft with the prompt: "Could you please refine this essay into a 1,000 word essay?", output from 10 May 2025

Note that after using Claude AI, Ms. Voss and Ms. Thomforde combined their texts and made additional edits.

Aleksandrowicz, Lukasz, et al. "The Impacts of Dietary Change on Greenhouse Gas Emissions, Land Use, Water Use, and Health: A Systematic Review." *PLOS One*, edited by Andrea S. Wiley, vol. 11, no. 11, Nov. 2016, p. e0165797, doi.org/10.1371/journal.pone.0165797. Accessed 10 May 2025.

Aydoğdu, Gökçe Sueda, and Makbule Gezmen Karadağ. "The Two Dimensions of Nutrition for the Planet: Environment and Health." *Current Nutrition Reports*, vol. 14, no. 1, Springer Science and Business Media LLC, Mar. 2025, doi.org/10.1007/s13668-025-00642-3. Accessed 5 Apr. 2025.

Brundtland, Gro Harlem. *Report of the World Commission on Environment and Development: Our Common Future*. United Nations, 1987, sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf. Accessed 10 May 2025.

Clark, Michael, and David Tilman. "Comparative Analysis of Environmental Impacts of Agricultural Production Systems, Agricultural Input Efficiency, and Food Choice." *Environmental Research Letters*, vol. 12, no. 6, June 2017, p. 064016, doi.org/10.1088/1748-9326/aa6cd5. Accessed 10 May 2025.

Fairtrade Foundation. "Why Partner with Fairtrade." *Fairtrade Foundation*, 2024, fairtrade.org.uk/for-business/why-partner-with-fairtrade/. Accessed 10 May 2025.

Halpern, Benjamin S., et al. "The Environmental Footprint of Global Food Production." *Nature Sustainability*, vol. 5, Oct. 2022, pp. 1-13, doi.org/10.1038/s41893-022-00965-x. Accessed 10 May 2025.

Hua, Mel, and Mo Chatterji. "How Recycled Material Could Make Fashion More Sustainable." *World Economic Forum*, 6 June 2023, weforum.org/stories/2023/06/recycled-material-could-solve-most-of-fast-fashion-s-sustainability-problems-here-s-how/. Accessed 10 May 2025.

Intergovernmental Panel on Climate Change. "Chapter 5 - Food Security." *Ipcc.ch*, Special Report on Climate Change and Land, 2019, ipcc.ch/srccl/chapter/chapter-5/. Accessed 10 May 2025.

—. "Global Map of Vulnerability." *Ipcc.ch*, Climate Change 2022: Impacts, Adaptation and Vulnerability, 2022, ipcc.ch/report/ar6/wg2/figures/chapter-8/figure-8-006. Accessed 10 May 2025.

Jung, Aline. *Enila Interview*. Interview by Elizabeth Voss and Sarah Thomforde, 25 Apr. 2025.

Nichols, Hannah. "Western Diet: How It Affects Health, Risks, and Complications." *medicalnewstoday.com*, edited by Kathy W. Warwick, 27 Oct. 2023, medicalnewstoday.com/articles/western-diet#standard-american-diet. Accessed 10 May 2025.

Ritchie, Hannah, et al. "Environmental Impacts of Food Production." *Our World in Data*, Our World in Data, 2022, ourworldindata.org/environmental-impacts-of-food. Accessed 10 May 2025.

United Nations. "The 17 Sustainable Development Goals." *United Nations*, 2025, sdgs.un.org/goals. Accessed 10 May 2025.

"Why People Go Vegan: 2019 Global Survey Results." *Vomadlife.com*, 2019, vomadlife.com/survey. Accessed 10 May 2025.