

Study shows how the meat and dairy sector resists competition from alternative animal products

August 18 2023



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A new Stanford study reveals how meat and dairy industry lobbying has influenced government regulations and funding to stifle competition from alternative meat products with smaller climate and environmental

impacts. The analysis, published Aug. 18 in *One Earth*, compares innovations and policies related to plant-based meat alternatives and lab-grown meat in the U.S. and European Union.

"The lack of policies focused on reducing our reliance on animal-derived products and the lack of sufficient support to alternative technologies to make them competitive are symptomatic of a system still resisting fundamental changes," said study lead author Simona Vallone, an Earth system science research associate in the Stanford Doerr School of Sustainability at the time of the research.

A growing problem

Livestock production is the agriculture sector's largest emitter of the potent greenhouse gas methane, due to emissions from ruminants such as cattle, sheep, and goats. It's also the main direct cause of tropical deforestation, due to pasture expansion and feed crop production.

Numerous studies have demonstrated that dietary changes hold great potential to reduce humanity's ecological footprint, especially a reduction in red meat consumption. At the same time, Western-style meat-heavy diets are becoming more popular around the world.

The researchers reviewed major agricultural policies from 2014 to 2020 that supported either the animal food product system or alternative technologies, and compared government spending on both systems. They also looked at related lobbying trends.

They found that governments consistently devoted most of their agricultural funding to livestock and feed production systems, avoided highlighting food production sustainability dimensions in nutrition guidelines, and attempted to introduce regulatory hurdles, such as narrow labeling standards, to the commercialization of meat alternatives. Major

U.S. meat and dairy companies actively lobbied against environmental issues and regulations to tip the scales in their favor.

In the U.S., about 800 times more public funding and 190 times more lobbying money goes to animal-source food products than alternatives. In the EU, about 1,200 times more [public funding](#) and three times more lobbying money goes to animal-source food products. In both regions, nearly all plant-based meat patents were published by a small number of private companies or individuals, with just one U.S. company, Impossible Foods, owning half of the patents.

Among the anecdotes cited by the study:

- EU cattle producers were highly dependent on direct subsidy payments, which constituted at least 50% of their income during the study period. Some of these payments incentivized farmers to maintain herd size, keep pasture in production, or increase overall output.
- In 2017, following a European Court of Justice ruling, dairy terms such as milk and cheese could no longer be used to market most alternative milk and dairy products. Similarly, a proposed amendment to the U.S. Federal Food, Drug, and Cosmetic Act would prohibit the sale of alternative meats unless the product label included the word "imitation" and other clarifying statements indicating the non-animal origin.

Restoring competition

This past June, the U.S. Department of Agriculture approved the sale of lab-grown chicken, the first such authorization to cultivated meat producers in the country.

The Stanford study points to recent policy developments as similar glimmers of hope for a shift to more sustainable diets. In the U.S., the Inflation Reduction Act passed last year includes investments in technical and financial assistance to support farmers and ranchers implementing practices to reduce greenhouse emissions or sequester carbon.

In the EU, a policy proposal set for debate this fall aims at accelerating a sustainable transition of the food system to support climate mitigation solutions, and reduce biodiversity loss and environmental impacts.

To ensure a fair marketplace for alternative meat products, policymakers should craft legislation that ensures meat's price reflects its environmental costs, increases research on alternative meat and dairy products, and informs consumers on alternatives to [meat](#) via dietary guidelines, according to the researchers.

"It's clear that powerful vested interests have exerted political influence to maintain the animal-farming system status quo," said study senior author Eric Lambin, the George and Setsuko Ishiyama Provostial Professor at Stanford and senior fellow at the Stanford Woods Institute for the Environment. "A significant policy shift is required to reduce the food system impact on climate, land use, and biodiversity."

More information: Simona Vallone, Public policies and vested interests preserve the animal farming status quo at the expense of animal product analogs, *One Earth* (2023). [DOI: 10.1016/j.oneear.2023.07.013](https://doi.org/10.1016/j.oneear.2023.07.013). [www.cell.com/one-earth/fulltext ... 2590-3322\(23\)00347-0](https://www.cell.com/one-earth/fulltext/S2590-3322(23)00347-0)

Provided by Stanford University

Citation: Study shows how the meat and dairy sector resists competition from alternative animal products (2023, August 18) retrieved 2 May 2024 from <https://phys.org/news/2023-08-meat-dairy-sector-resists-competition.html>

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