



# RESEARCH BRIEF

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## Changing Our Diet to Meet Climate Goals

*By favoring the status quo animal-based farming system through their agriculture policies, the United States and European Union governments are failing to promote a food system transformation that tackles the sector's main and significant contribution to climate change.*

### Background

Climate impacts such as extreme heat, prolonged drought, megafires and severe flooding are predicted to increase in severity and occurrence if greenhouse gas emissions are not dramatically decreased. While much of the climate discussion regarding agriculture focuses on adaptation to these and other climate effects on global food security, agriculture also has an important role to play in achieving mitigation goals. The sector is responsible for producing approximately 10 to 20 percent of global greenhouse gas emissions, largely from methane, that arise from livestock production, which is not only the largest source of agricultural methane but is also a main cause of tropical deforestation.

Research has shown that dietary changes, especially reducing red meat consumption, have great potential to reduce humanity's ecological and climate footprint. Manufacturers are now able to produce comparable products to meat, milk, and other dairy items due to significant investments in the development of food substitutes derived from plants and developed in laboratories. These innovations will help lower the barriers to reducing consumption of animal-source

### POINTS FOR POLICYMAKERS

After reviewing the major agricultural policies from 2014-2020, the Stanford study found that the US and EU public policies **mostly hindered the establishment and proliferation of non-animal products as viable substitutes for animal products**. Except for early-stage research funding, US and individual EU country governments impeded this transition by investing most of their agricultural financial support into livestock and feed production systems; promoting meat and dairy over alternatives in national dietary guidelines while largely failing to mention links between food choices and environmental sustainability; and through food labeling regulations. Specifically, the findings include:

► **Financial support from both the US and EU governments predominantly goes to the status quo system of animal farming.** Despite public support for further research into plant-based and lab-derived meat and dairy alternatives, US and EU financial assistance still significantly favored animal production, including both livestock raising and feed production. In the EU, animal source food products benefit from about 1,200 times the public funding and three times the lobbying expenses of alternatives to the current animal system. In the US, the respective figures are about 800 times the public funding and 190 times the lobbying expenses.

► **US and EU national dietary guidelines prioritize products derived from the incumbent animal farming system and fail to address sustainability issues.** Plant-based alternatives receive only sparse or secondary mentions in nutritional recommendations. Not including information about the environmentally damaging role played by the current and dominant animal-centric food production systems through the nutrition guidelines is also a missed opportunity to educate the public.

► **Farm industry and farm NGOs exert great influence over US and EU governments and use their power to actively lobby against policies that would benefit plant-based alternative meat products.** This influence is manifested throughout the supply chain, for example on policy decisions affecting trade, the environment, animal health and welfare, marketing standards and labeling of plant-based alternatives. The animal farm industry also attempts to influence the content of dietary guidelines.

products, but a robust assessment of the interactions between policies, barriers and drivers of systemic change and the adoption of meat and dairy alternatives is lacking and needed to inform effective decision-making.

To better understand these interactions, researchers at Stanford University conducted a comparative analysis between the United States and the European Union – two regions chosen because of their similarities in consumption patterns, support for research and innovation, and agricultural policies. The research examined the policies that shape or hinder the transition from an exclusive reliance on animal-based products to a greater consumption of more sustainable alternatives and looked at activity by the prevailing animal farming industry to determine if industry actors and organizations working in their interest are actively obstructing a transition in the food system through political influence.

## Conclusion

The US and EU have both acknowledged a need to reduce emissions from the agriculture sector and legislation such as the US Farm Bill and the EU Common Agriculture Policy have made some progress towards this goal. However, based on the analysis of US and EU policies, they are failing to incentivize a scaling down of the current agriculture production system at a level necessary to significantly address climate emissions from the sector. An opportunity to highlight the environmental sustainability aspects of food production in nutrition guidelines has also not been taken advantage of. Furthermore, powerful lobbying groups have exerted influence over policymakers to introduce regulatory hurdles to the commercialization of new animal-alternative products, further slowing transition.

Animal farming is regulated by policies, anchored in an established production system with institutionalized competencies and a highly developed infrastructure. This system has been shaped for decades by public institutions, industry, non-governmental organizations, and consumers. The alternatives to animal foods are the product of technological innovations, experiencing growing consumer interest and attracting an expanding pool of stakeholders. Often presented as a low-carbon solution to animal farming, these niche innovations likely require new policies and financial incentives to achieve greater market share. As more and more countries adopt western-style diets, a systemic analysis to identify pathways towards more sustainable food production and consumption is needed.

*The Stanford Woods Institute for the Environment is part of the Stanford Doerr School of Sustainability.*

## ABOUT THE AUTHORS



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This brief is based on “**Public policies and vested interests preserve the animal farming status quo at the expense of animal product analogs**” published in the journal *One Earth*.

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## FOR MORE INFORMATION

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