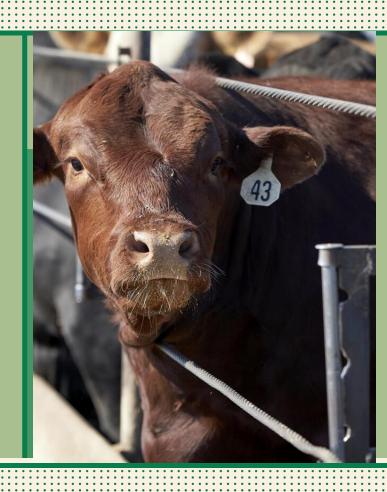
Beef in the United States

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Environmental Policy Major Energy & Environmental Policy // Environmental Humanities Minors 5/8/2024



The Problem: Emissions

- -The average American citizen consumes about 55 lbs of beef per year (3x the global average!)
- -Beef production and consumption accounts for about 37% of all U.S. agricultural emissions
- -Grain production and consumption only account for about 2.1% of U.S. agricultural emissions
 - -Beef to emissions ratio is 1.5 lbs per capita
 - -Poultry to emissions ratio is 10 lbs per capita
 - -Grains to emissions ratio is 62 lbs per capito



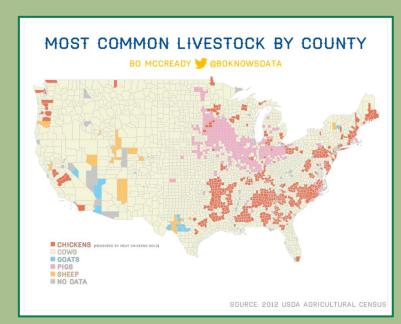
The Problem: Subsidies

- -Payments to industry actors by the government for:
 - -Mitigating pricing fluctuations
 - -Ensuring a basic level of income
 - -Research into more efficient practices
- -Only 2% of farm households below the national median are receiving benefits
- -Over \$20 billion has been allocated to the beef industry since 2020
- -Only \$124 million has been allocated to plant based proteins and meat substitutes since 2001



History

- -Cattle industry boomed as Westward expansion happened
- -Corn based diets allowed for much larger cows
- -Demand increased due to rise in incomes, growth of two-income families, and urbanization
- -People no longer had the space to raise their own cattle, so they had to buy it elsewhere
- -Improvements in transportation and refrigeration helped make this possible
- -Between 1980 and 2010, the amount of beef cattle farms reduced by 42%



Laws and Regulations

- -Homestead Acts (19th Century
 - -Encouraged westward expansion and facilitated establishment of cattle ranches
- -Grain Subsidies and Feedlot Expansion (20th century)
 - -Focus more on supporting crops like corn and soybeans to be used as feed for cattle
- -Food Safety Regulations
 - -United States Department of Agriculture and United States Food and Drug Administration
- -Environmental Regulations
- -Regulations to reduce water usage, practice better land management, and manage greenhouse gas emissions

Official and Unofficial Actors

- -Agencies
 - -Department of Agriculture
 - -Food and Drug Administration



- -National Cattlemen's Beef Association
- -Companies like Tyson, Cargill Meat Solutions, and Sysco
- -Small farmers
- -Retailers and Restaurants
- -Individual consumers!

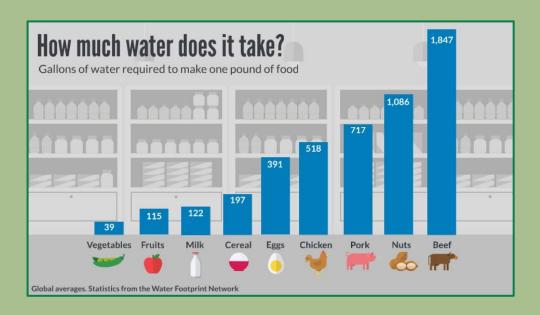






Sustainability

- -By solving the problems...
 - -Less emissions
 - -More funds to go to other programs
 - -More water for other uses
 - -More land for other uses



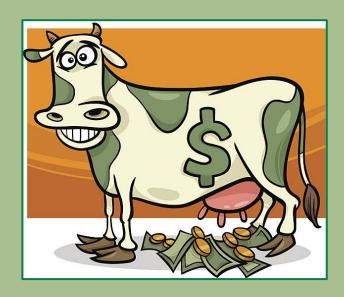
Solutions

-Reduction

- -Reduce subsidies on beef
 - -Decrease overall demand and production
 - -Allows for alternatives to rise

-Reallocation

- -Move funds to...
 - -Incentivize alternatives
 - -Promote smaller, sustainable production
- Incentivize increased production of other food as like fruits and vegetables
- Research and development into plant-based alternatives and possibly lab grown meat



Benefits

- -Climate change reduction
- -Encourages smaller and more local agriculture
- -Less plants for animals and more for people
- -Healthier diets
- -More ethical animal treatment
- -Preventing deforestation



Thank you!

Sources

Arrowquip. (2017, June 6). A Timeline of Changes: Beef Cattle Farming in North America. https://arrowquip.com/blog/cattle-research/timeline-of-changes-beef-cattle-north-america/

Daniel, C. R., Cross, A. J., Koebnick, C., & Sinha, R. (2011). Trends in meat consumption in the USA. Public Health Nutrition, 14(4), 575-583. Cambridge Core. https://doi.org/10.1017/S1368980010002077

Davis, C. G., & Lin, B.-H. (2005). Factors affecting US beef consumption. US Department of Agriculture, Economic Research Service Washington, DC, USA.

Ding, H., Anderson, W., & Cristales, R. Z. (2021, August 25). Smarter Farm Subsidies Can Drive Ecosystem Restoration, World Resources Institute.

https://www.wri.org/insights/how-farm-subsidies-combat-land-degradation

Farmer, E. R. (2018). Restoring the Small Family Farm: Sustainable Practices and Sustainable Subsidy Payments. Appalachian JL, 18, 45.

Gillette, D. (2022, April 21). The True Cost of a Hamburger. American Institute for Economic Research. https://www.aier.org/article/the-true-cost-of-a-hamburger/

Hayes, J. (2023, December 1). USDA livestock subsidies top \$59 billion. Environmental Working Group. https://www.ewg.org/news-insights/news/2023/08/usda-livestock-subsidies-top-59-billion

Maeder, B., Walter, H. N., Dongoski, R., & Krupke, T. (2023, March 14). Meatless happiness – alternative proteins on the rise. EY.

https://www.ev.com/en_us/strategy/how-alternative-proteins-are-reshaping-meat-industries

Post, M. J. (2014). An alternative animal protein source: Cultured beef. Annals of the New York Academy of Sciences, 1328(1), 29–33. https://doi.org/10.1111/nyas.12569

Strauss, A. (2020, November 16). The feed-meat complex: Unpacking the truth about how big meat pockets billions in farm subsidies. Farm Action. https://farmaction.us/2020/11/16/thefeedmeatcomplex/

Wilde, W. (2022, October 30). Fact check: How bad is eating meat for the climate?. dw.com

 $https://www.dw.com/en/fact-check-is-eating-meat-bad-for-the-environment/a-63595148\#: \sim: text = With \%2099.48\%20 kilograms \%20of \%20 carbon, biggest \%20 source \%20of \%20 greenhouse \%20$