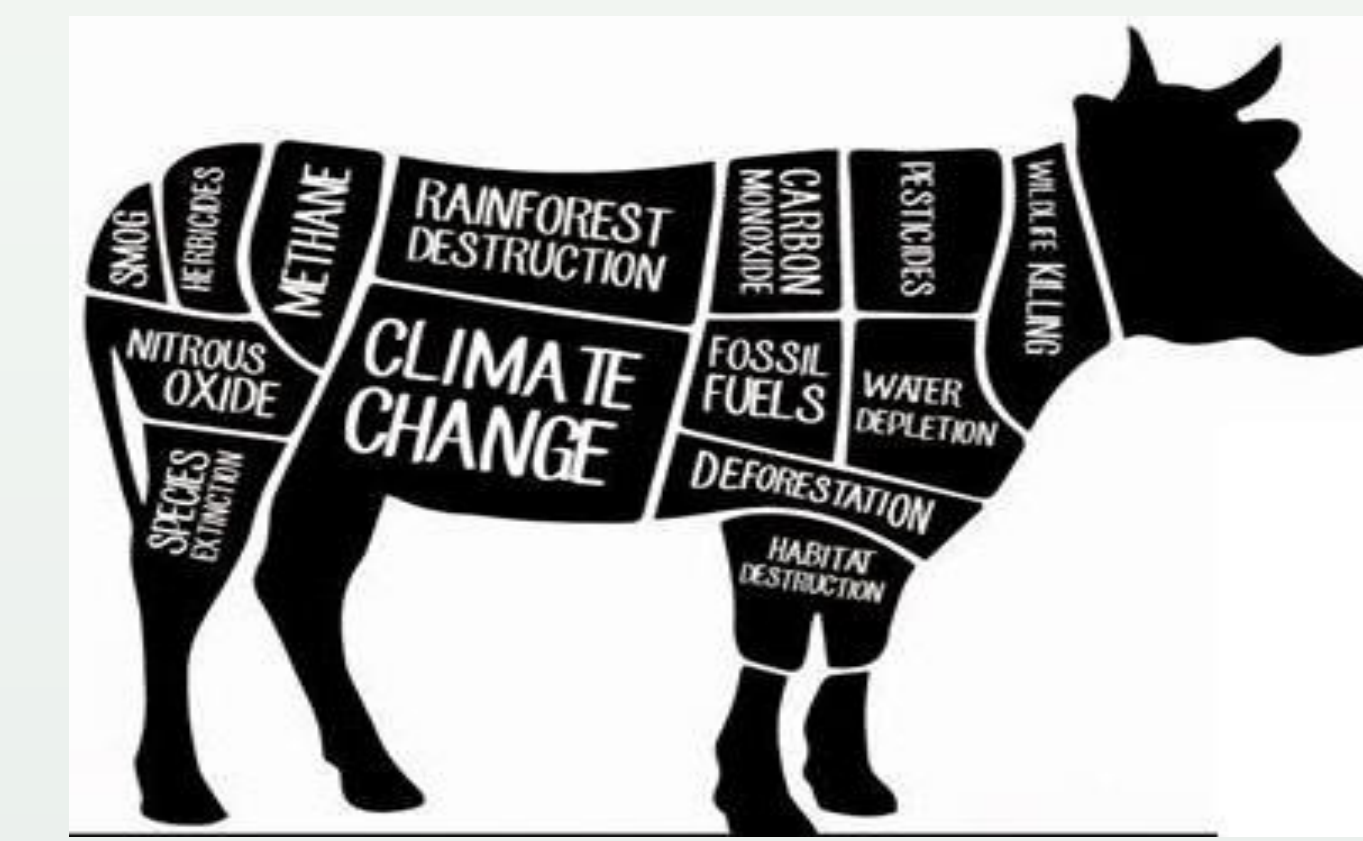
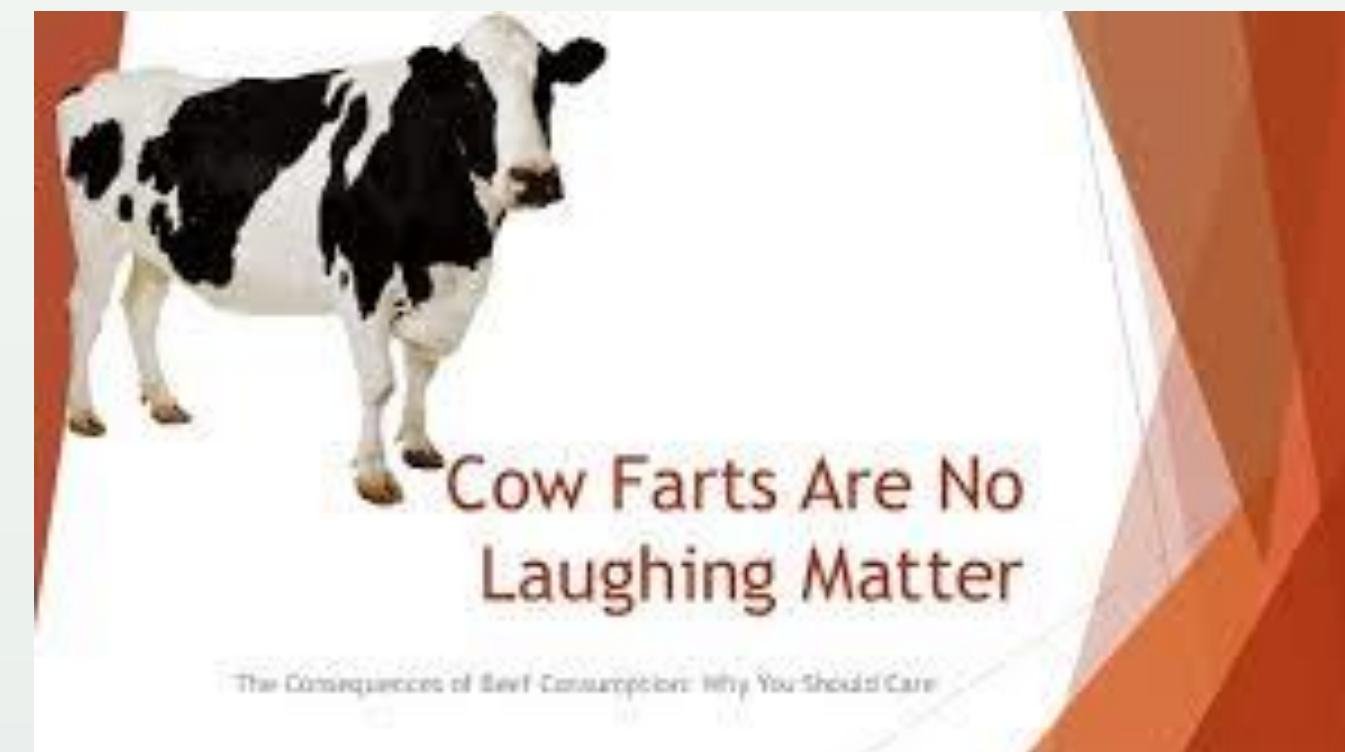


Animal Agriculture and The Environment: Why Cow Farts are No Laughing Matter

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Abstract

Global warming is the result of pollutants such as carbon dioxide, methane, and other gases being emitted into the atmosphere in a large amount. As a result the earth's temperatures are rising, leading to glaciers melting, changing weather patterns, and forest fires. This research study has concluded that animal agriculture is a leading contributor to global warming.

Research Objectives

To understand the influence of animal agriculture on climate change.

Background

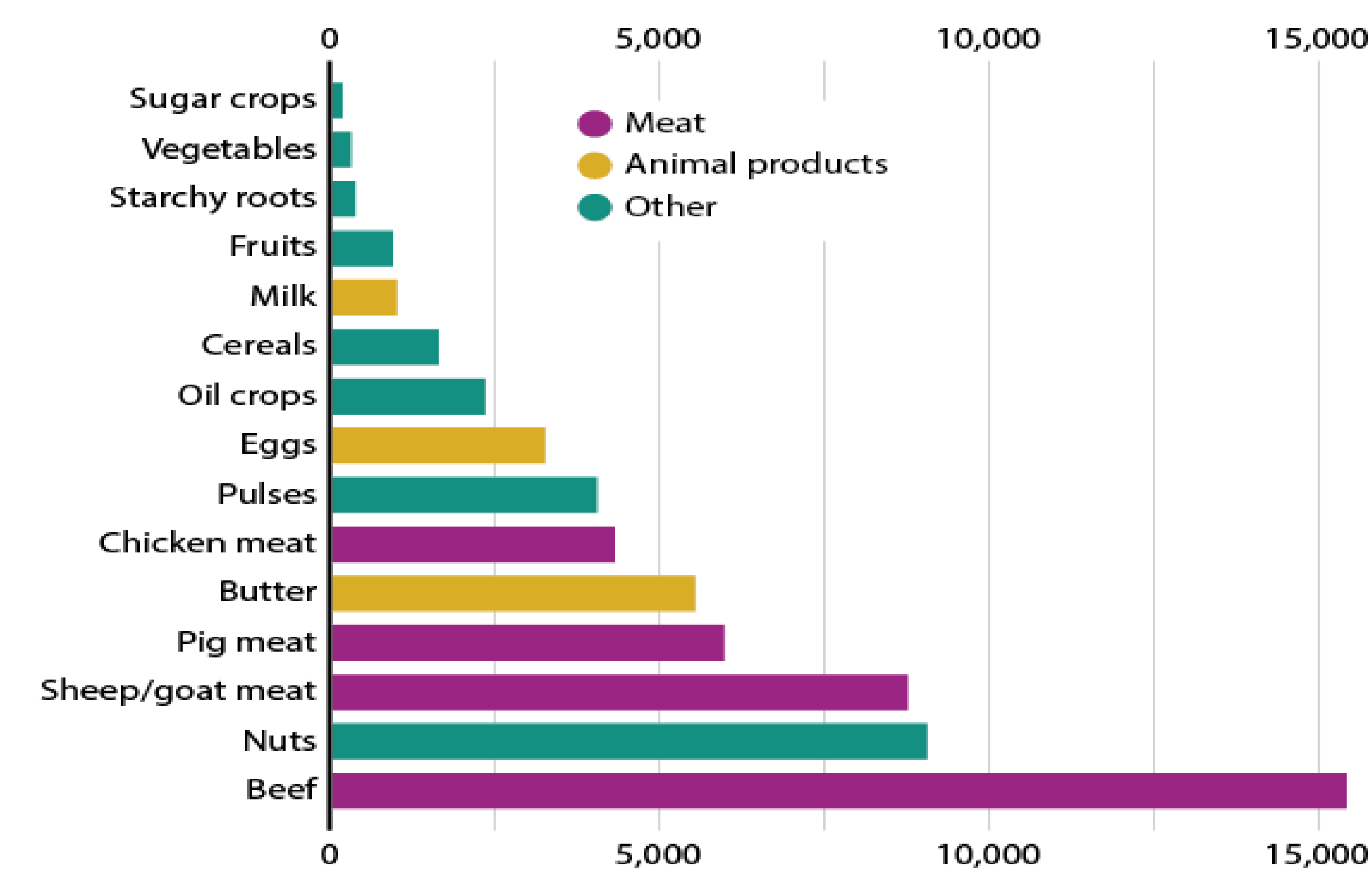
- Greenhouse gases are assumed to be the result of the combustion of petroleum products. Which results in emissions of carbon dioxide and carbon monoxide.
- However, recent research has demonstrated that the main source of emissions is animal agriculture.
- The raising of livestock produces staggering amounts of methane as well as carbon dioxide emissions from huge farming equipment.
- Daily consumption of meat and dairy products is increasing in developing countries. This diet, already common in North America and Europe, is contributing more damage to the environment than the combustion of fossil fuels.
- Raising livestock creates layers of pollution:
 - Forest have to be cut down to create grazing areas for livestock, leading to CO2 emission.
 - The livestock have to be fed which require water-intensive grains in large amounts.
 - Animals and feed must be transported with massive farming vehicles and machinery.

Conjecture

This research indicates that animal agriculture is the largest contributor to greenhouse gas emissions, climate change, and pollution. We conclude that if society promoted a plant based diet, not only would it be beneficial to the environment, it would lower the risk of many health issues.

Meat And Animal Products Use A Huge Amount Of Water

Total water footprint per ton (m³/ton)



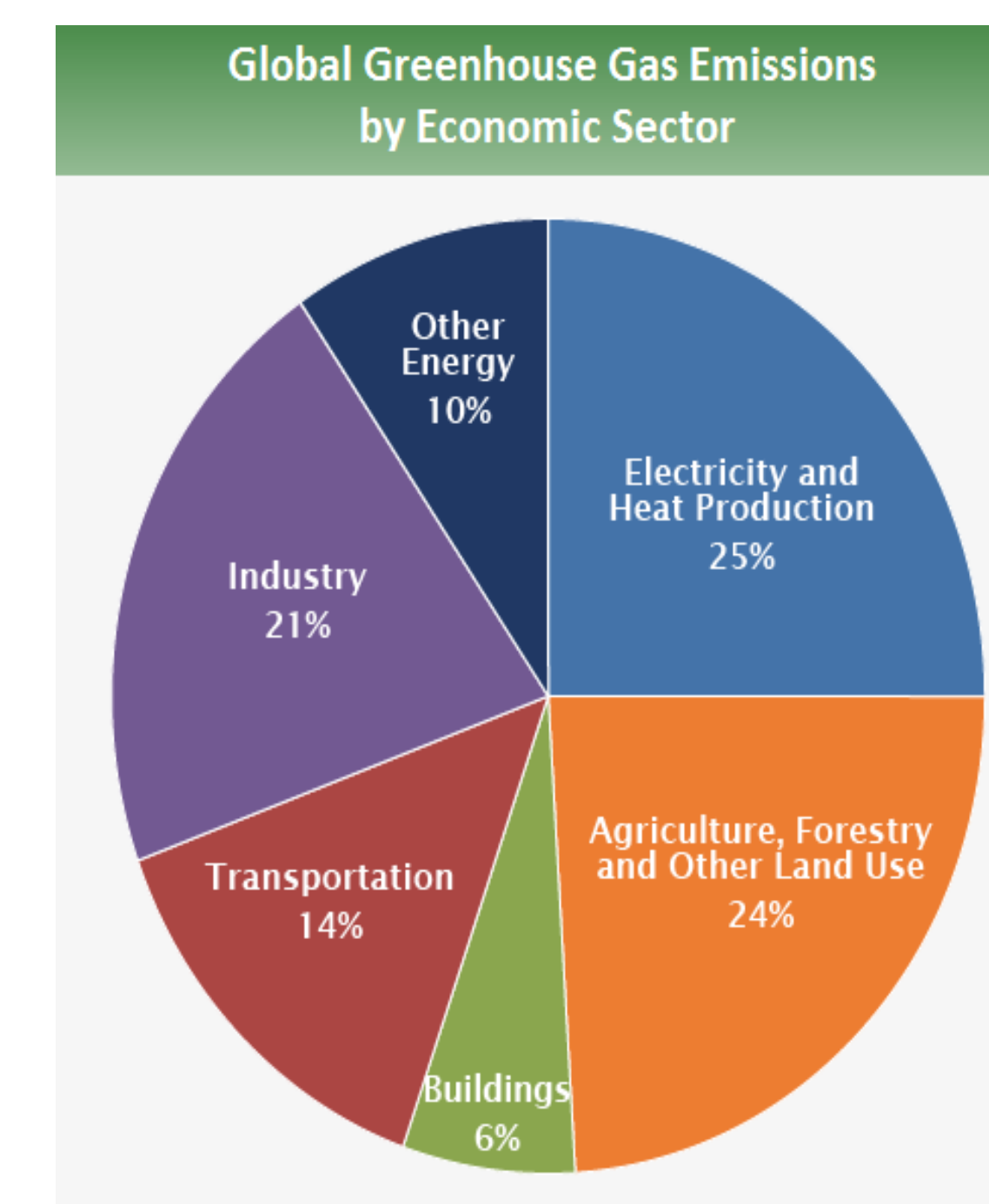
Source: Ecosystems, A Global Assessment of the Water Footprint of Farm Animal Products

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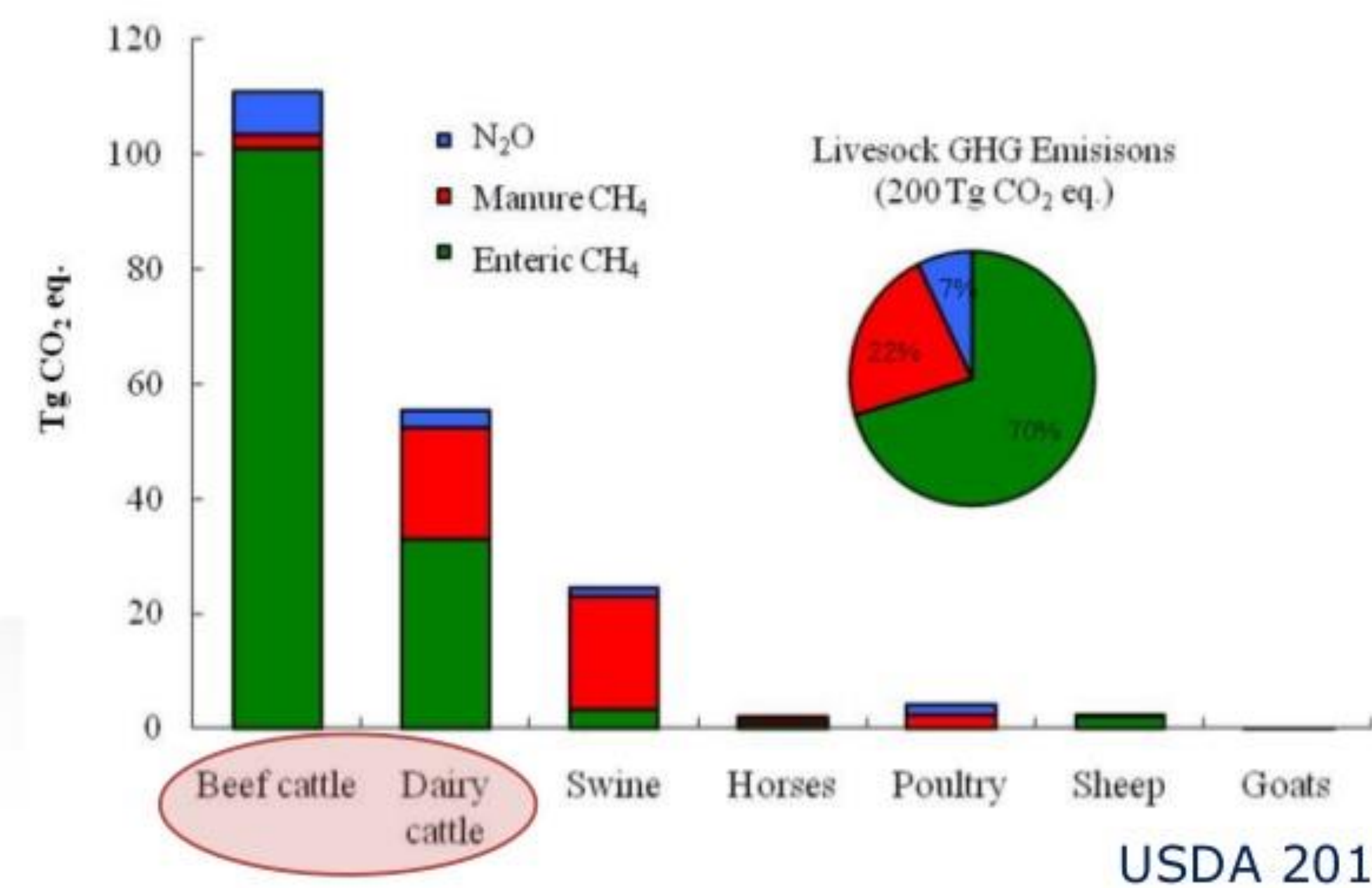
Animal Agriculture & Climate Change



Water consumption for livestock is between 50-80%, while domestic use is only 5% of total US water consumption



Animal Agriculture GHG Emissions



USDA 2011

While there are many ways animal agriculture has contributed to greenhouse emissions, cow flatulence (farts) and cow manure are also contributors.



Close to 50-70% of U.S. farmland grows corn and soy for livestock feed

Conclusion

We have concluded that animal agriculture is the leading cause of global warming.

A thorough examination of research data demonstrates that there is a misconception about what one can do to lower their carbon footprint. Consuming less animal products is more eco-friendly than buying a hybrid car. It is also better for human health to have a more plant based diet.

Through direct and indirect impact, animal agriculture is influencing climate change through:

- Deforestation
- Animal extinction
- Greenhouse gas emissions
- Excessive water consumption
- Ocean dead zones

It is critical that policy makers, researchers, and every day people recognize that animal agriculture is a major polluter worsening the environmental crisis of climate change.

If efforts are made to promote less animal product consumption, many disturbing environmental and global warming threats would be curbed.

References

- Gerber, Pierre J., et al. *Tackling climate change through livestock: a global assessment of emissions and mitigation opportunities*. Food and Agriculture Organization of the United Nations (FAO), http://www.fao.org/ag/againfo/resources/en/publications/tackling_climate_change/index.htm, 2013. Date accessed: 20/12/16
- United States Environmental Protection Agency, *Global Greenhouse Gas Emissions Data*, <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>, .N.D., Date accessed: 3/1/16
- Bowling, Adam G., *A Leading Cause of Everything: One Industry That is Destroying Our Planet and Our Ability to Thrive on it*, Stanford Environmental Law Journal, <https://journals.law.stanford.edu/stanford-environmental-law-journal-elj/blog/leading-cause-everything-one-industry-destroying-our-planet-and-our-ability-thrive-it>, 2015, Date accessed: 17/1/16