

Dalhousie University Researchers Raise Questions About the Sustainability of the Global Livestock Industry

Nathan Pelletier and Peter Tyedmers of the Dalhousie University School for Resource and Environmental Studies have released a paper focusing on the environmental implications of the livestock industry. The paper illustrates a number of worrying statistics that call into question the sustainability of the livestock industry. If we continue to increase our consumption of livestock, we will fatally impact our environment on a local and global scale

Key Points:

- Based on conservative projections, production in the livestock industry will double in the next 50 years.
- The environmental impacts of the increase in the livestock industry are significant. Projections suggest that in the next 50 years, the livestock industry alone will account for 72 per cent of humanity's total safe operating space for anthropogenic greenhouse gas emissions, 88 per cent of safe operating space for biomass appropriation and nearly 300 per cent of the safe operating space for reactive nitrogen mobilization.
- An abundance of reactive nitrogen presents the most startling statistic. Industrially produced fixed nitrogen is a large component of commercial fertilizer that is used on crops and pastures for the livestock industry. Only 10-20 per cent of the nitrogen applied to crops is consumed by humans, the remainder is lost to the environment. Too much nitrogen in the ecosystem can lead to a loss of biodiversity and simplification of ecosystems.
- An estimated 60 per cent of biomass currently harvested each year to support all human activities is consumed by the livestock industry.
- As individuals, it is important to make wise choices in regards to protein consumption. We need protein as part of a balanced diet, but collectively, we over-consume livestock in particular. We need to start limiting the amount of livestock we consume and find alternative sources such as poultry and soy beans that have a smaller environmental impact.

Pull Quotes:

- "What is surprising about our work is that, using what we believe to be quite conservative models, we suggest that by 2050 the livestock sector alone may occupy the majority of or substantially overshoot recently proposed sustainability thresholds for human activities as whole in these three important environmental domains. This really should serve as a wake-up call for policy makers." – Nathan Pelletier, Dalhousie University School of Resource and Environmental Studies

Resource Links:

- [Forecasting potential global environmental costs of livestock production 2000-2050](#)

Contacts:

- Mel Hennigar, melissa.hennigar@dal.ca, 902.494.1323
begin_of_the_skype_highlighting 902.494.1323