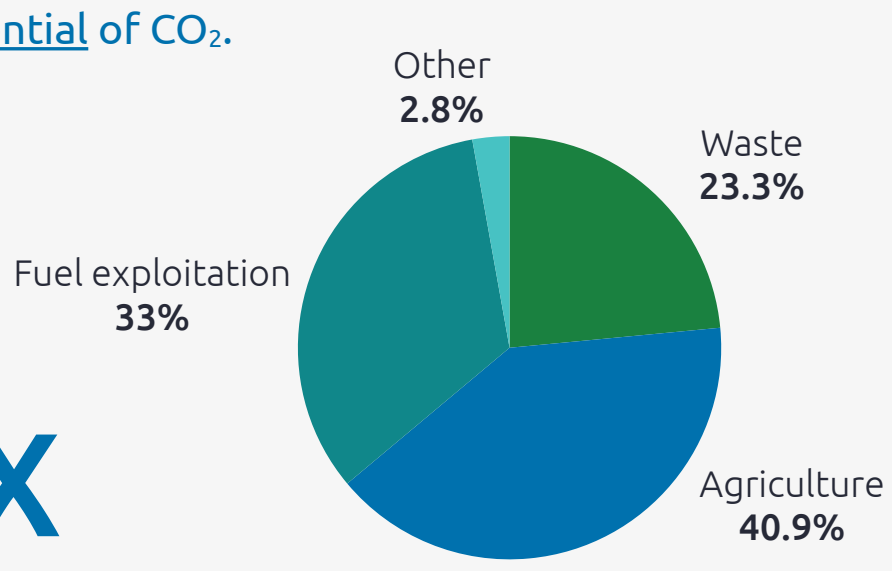
How methane emissions are driving *climate change*

Methane is a potent greenhouse gas that plays a significant role in global warming. In the agricultural sector, livestock are the primary source of methane emissions, accounting for 86 percent of total methane emissions worldwide, and agricultural emissions are projected to increase by approximately 50 percent between 2010 and 2070. This is a significant concern, given that methane has 80 times the global warming potential of CO_2.

At a glance:

41% Roughly 41 percent of methane emissions are from agriculture

Methane has 80x the global warming potential of CO_2 **80X**



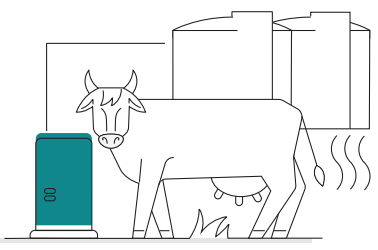
The Global Methane Pledge was established in response to this challenge, spurring $3.5 billion of investments in methane-reducing projects in 2023 alone. The primary stakeholders in these efforts include government and environmental protection agencies, as well as livestock producers, all of whom play a crucial role in mitigating the impact of these emissions.

Government incentives significantly cut CO_2 emissions

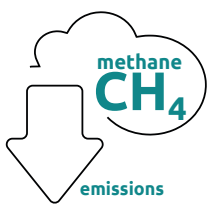
Combating agricultural methane emissions is crucial for tackling climate change, and government incentives are a powerful tool.

For example, the Canadian Net-Zero Emissions Accountability Act promotes the adoption of advanced feeding programs, waste-to-energy biogas systems, and efficient manure management practices. All these strategies can significantly reduce methane emissions from livestock. The success of such initiatives hinges on effectively scaling and localizing farmer education and deployment strategies.

$12 million Canada's Agricultural Methane Reduction Challenge builds on these actions, awarding up to $12 million to innovators for reducing cattle methane emissions.



Canada's strategy aims to reduce methane emissions by 35% by 2030 **35%**



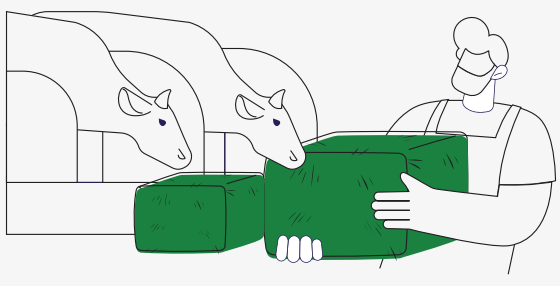
Feed usage optimization supports animal welfare and the environment

The fight against agricultural methane emissions offers a surprising silver lining. Increased animal productivity can go hand-in-hand with reduced methane output. This means that improving animal wellbeing through better nutrition, health practices, and selective breeding can be a cost-effective strategy for mitigating climate change.

Companies like DSM, specializing in solutions for human and animal health and nutrition, are leading with innovative solutions like feed enzymes, which not only improve animal welfare but also protect the environment.

These advancements have the potential to:

$1.1 million Save farms that raise around **15,000 cows** roughly $1.1 million annually.



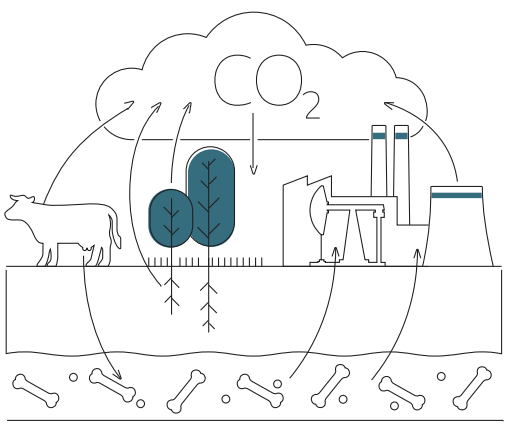
Boost feed efficiency by 10 percent. **10%**

Since farmers are the primary consumers of feed optimizers, feed optimization offers a win-win scenario. Farmers must implement data-driven feed strategies and prioritize robust animal healthcare.

Biowaste reduction technology converts methane into clean energy sources

Methane reduction technology, like manure digesters and separators, can be used to produce both renewable electricity and animal bedding. These technologies harness methane extracted from animal waste and convert it into valuable energy sources, including electricity, heat, and vehicle fuel, contributing to sustainable energy production and waste management.

Ice cream brand Ben & Jerry's is implementing manure digesters.



A reduction of 15,000 metric tons of CO_2 emissions over 20 years **15,000 metric tons**

7,000 7,000 megawatt-hours (MWh) of electricity generated over 20 years

Enough to power around **600 homes for one year.** **600**

There are substantial environmental and energy benefits of methane reduction technologies in agriculture. Success in deploying these solutions requires strategic investments in anaerobic digesters and continuous process optimization, ensuring efficient conversion of animal waste into usable energy for the grid.

Click here to learn about our ongoing partnership with Venture Lab (powered by the Wharton School), and our work on advancing sustainable technologies. Ready to achieve your sustainability goals? Contact us today.

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