

**ACROSS EVERY DAIRY COMMUNITY.  
THROUGHOUT EVERY CONTINENT.  
WE ARE TAKING ACTION.**

# **BE PART OF PATHWAYS TO DAIRY NET ZERO.**

Your guide to the initiative



[#PATHWAYSTODAIRYNETZERO](#)

# TOGETHER WE CAN RAISE DAIRY'S AMBITION AND ACCELERATE CLIMATE ACTION

**The global dairy community is coming together to help reduce the sector's impact on the planet.**

Pathways to Dairy Net Zero is an initiative unlike any other in agriculture in size and scope.

It brings together dairy farms of every size and type, as well as organizations throughout the dairy supply chain.

**No matter where you are or how you contribute to the dairy production system, there is a pathway for you towards Dairy Net Zero.**

Launched September 22, 2021, during Climate Week and just prior to the United Nations (UN) Food Systems Summit, this growing movement is dedicated to reducing dairy's greenhouse gas (GHG) emissions over the next 30 years.

Together we will amplify the efforts and initiatives already in place, optimizing and reducing emissions to safeguard nutrition security and sustain a billion livelihoods for tomorrow, while helping secure a future for us all.

**"THE DAIRY SECTOR PLAYS A CRITICAL ROLE IN SUSTAINABLE FOOD SYSTEMS AND CAN CONTRIBUTE DIRECTLY AND INDIRECTLY TO ALL THE SUSTAINABLE DEVELOPMENT GOALS."**

Mr. QU Dongyu, Director-General of the Food and Agriculture Organization of the United Nations  
Keynote Speech at 2020 Global Dairy Platform Annual Meeting



**THE NEED FOR DAIRY IS GREATER THAN EVER**

**30%** Increase in milk production in 10 years to meet growing nutrition demands<sup>1</sup>

Efficiency improvements mean that producing a glass of milk now results in:

**11%** Less greenhouse gas emissions<sup>1</sup>

**BUT DAIRY, LIKE ALL SECTORS, KNOWS THERE IS MORE WORK TO DO...**

# IDENTIFYING YOUR OPPORTUNITIES FOR POSITIVE CLIMATE ACTION

**No matter where you are or how you contribute to the dairy production system, there is a pathway for you towards Dairy Net Zero.**

New research is underway to identify where positive climate change action is possible across all dairy production systems and all regions throughout the world.

The outcomes of the study will guide the initiative and inform the methodologies, tools, and pathways to Dairy Net Zero.

## PRELIMINARY RESEARCH FINDINGS INCLUDE:

✓ **Positive change is possible across all dairy systems and regions.**

Despite the wide variety of production systems globally, there are opportunities for all to reduce emission intensity.<sup>2</sup>

✓ **Collaboration is needed to reduce dairy's emissions.**

Many climate, poverty, and malnutrition challenges can be addressed through adoption of best practices in similar dairy systems.<sup>3</sup>

✓ **Reducing methane may be key to fast results.**

Methane, a primary GHG produced by ruminant livestock, is short-lived. As a result, more reductions in methane would have a more immediate effect on warming.<sup>4</sup>

✓ **Dairy already has the means to reduce a significant proportion of emissions.<sup>5</sup>**

Initial evidence suggests emissions can be reduced up to 40% in some systems by improving productivity and resource use efficiency.

✓ **Defining terminologies and targets will focus efforts to achieve the best results.**

As indicated in the Intergovernmental Panel on Climate Change (IPCC) Special Report: Global Warming of 1.5°C, dairy's carbon dioxide emissions need to strive to Net Zero, but its methane reduction can range from 24-47%, and its nitrous oxide reduction can be 26%.<sup>6</sup>

**"INITIAL ANALYSIS SUGGESTS**

**THAT WIDER USE OF EXISTING GHG**

**MITIGATION TECHNOLOGIES WILL**

**MAKE AN IMPORTANT IMPACT IN**

**REDUCING DAIRY'S EMISSIONS**

**WHILE NEW INNOVATIONS ARE**

**DEVELOPED."**

Hayden Montgomery, Special Representative of the Global Research Alliance on Agricultural Greenhouse Gases (GRA)

## RESEARCH IS BEING CONDUCTED BY:



Food and Agriculture  
Organization of the  
United Nations



NEW ZEALAND  
AGRICULTURAL GREENHOUSE GAS  
Research Centre



# BE PART OF THE SOLUTION

Whoever you are, wherever you are, your contribution matters.

Every area of the global dairy community can commit to be a part of Pathways to Dairy Net Zero.

## PATHWAYS TO DAIRY NET ZERO WILL:

- ✓ **Include commitments**  
from every area of the global dairy community to tackle climate change while nourishing a growing population and sustaining the billion livelihoods dairy supports.
- ✓ **Highlight progress**  
from around the world – share best practices and recognize that all farms, all systems and all regions can be more sustainable.
- ✓ **Create methodologies, tools and pathways**  
to transform commitments into positive, practical actions.

## SIX PRINCIPLES OF PATHWAYS TO DAIRY NET ZERO



### Mitigation

Continuing to improve production and process efficiency to further reduce the GHG emissions intensity of milk and dairy products.



### GHG removals

Enhancing production practices that protect carbon sinks (soil, forests, grass and peatlands) and complement natural ecosystems.



### Avoidance and adaptation

Improving practices such as feed, manure, fertilizer and energy management.



### Insets and offsets

Identify and implement alternative, credible reduction options.



### Measurement and monitoring

Measuring greenhouse gas emissions to plan mitigation and monitor progress.



### Overall Support

Promoting the initiative and emphasizing the dairy sector's climate ambition.

Find out more at [www.pathwaystodairynetzero.org](http://www.pathwaystodairynetzero.org) and support the journey to Dairy Net Zero.

Take action through direct implementation of mitigation options, or simply by championing and promoting our principles in your business or organization.

As a supporter of Pathways to Dairy Net Zero you'll receive a guide and materials to help mark your commitment, spread the word, and find out how you can get involved.

# A MISSION WITH MOMENTUM.

Pathways to Dairy Net Zero is driven by the global dairy sector and supported by leading scientific and research organizations.



Knowledge partner:



## References

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