



Dairy Sustainability Framework

Measuring to manageand demonstrate!

GASL 2019 - Kansas

Brian Lindsay



Dairy Sustainability Framework

dairysustainabilityframework.org

A journey not a destination....!

One we are all travelling together!



30% of global milk
production

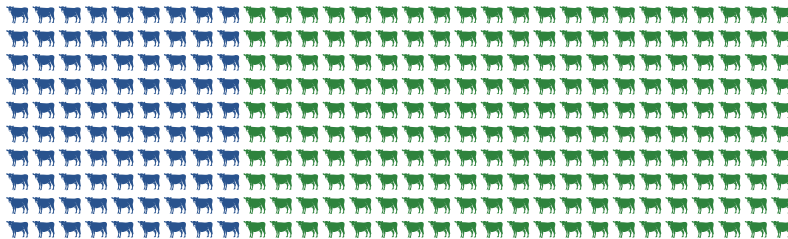
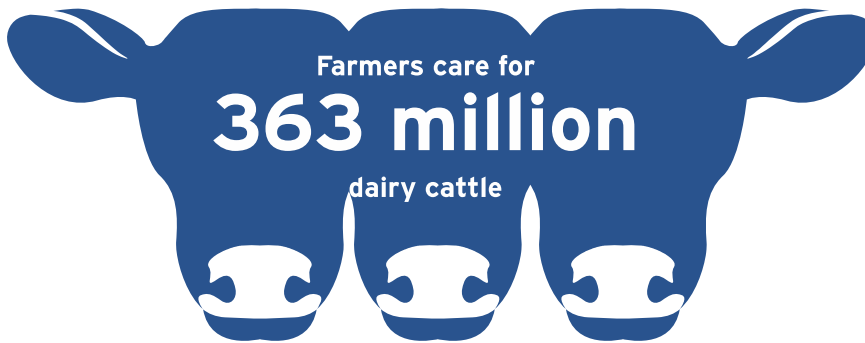
Governance and Advisory



Advisory Council

- American Humane Association
- ASDA/Walmart
- FAO
- Solidaridad
- WWF - *observer*
- Rabobank
- Global Round Table for Sustainable Beef
- World Bank
- OXFAM
- GFAR

Dairy sector snapshot: Dairy cattle



In industrialized economies herds are often larger: the average dairy farms in the UK and the US manage **90 and 300 dairy cows** respectively



Farmers in developing countries usually keeping them in herds of

2 or 3 cows

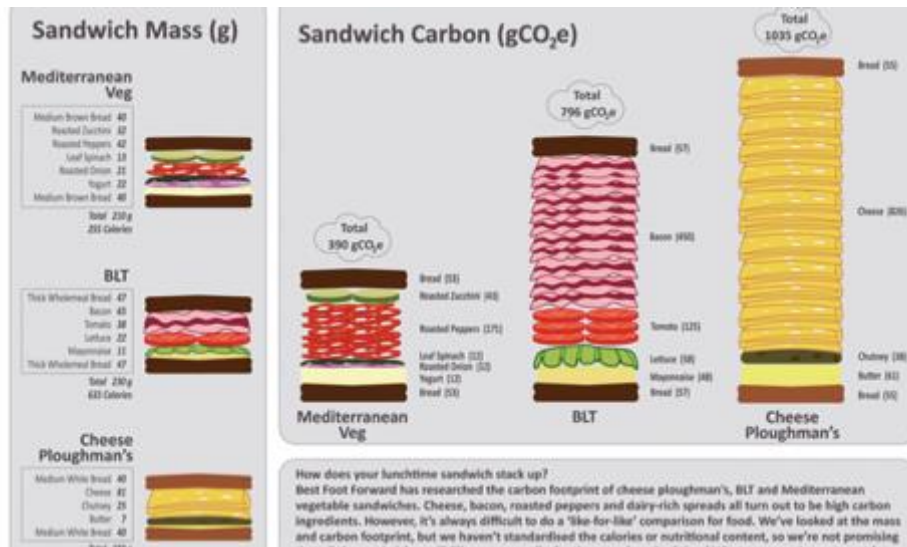


However, farms with more than 100 cows represent less than

0.3%

of all dairy farms globally

The single issue challenge!

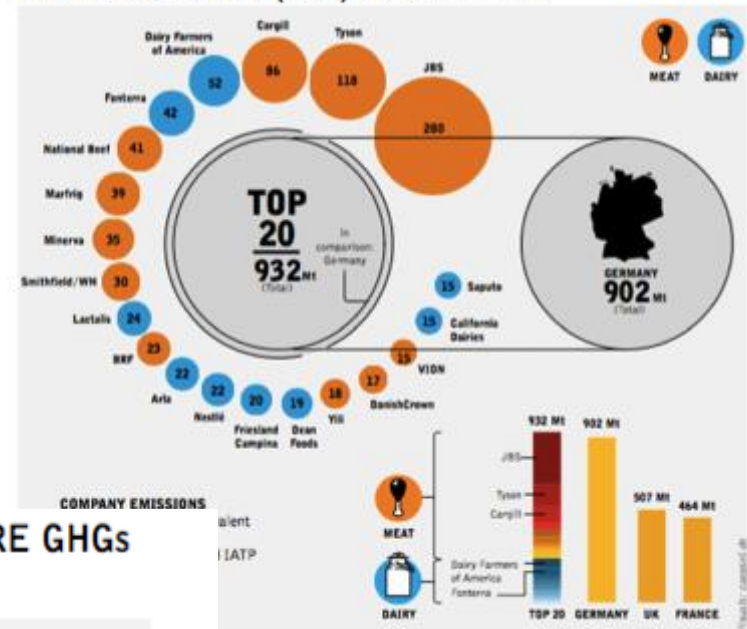


HEINRICH BÖLL STIFTUNG



BIG MEAT AND DAIRY'S SUPERSIZED CLIMATE FOOTPRINT

THE TOP 20 MEAT AND DAIRY CORPORATIONS EMIT MORE GREENHOUSE GASES (GHGs) THAN GERMANY



THE TOP MEAT AND DAIRY CORPORATIONS EMIT MORE GHGs THAN EXXON, SHELL OR BP

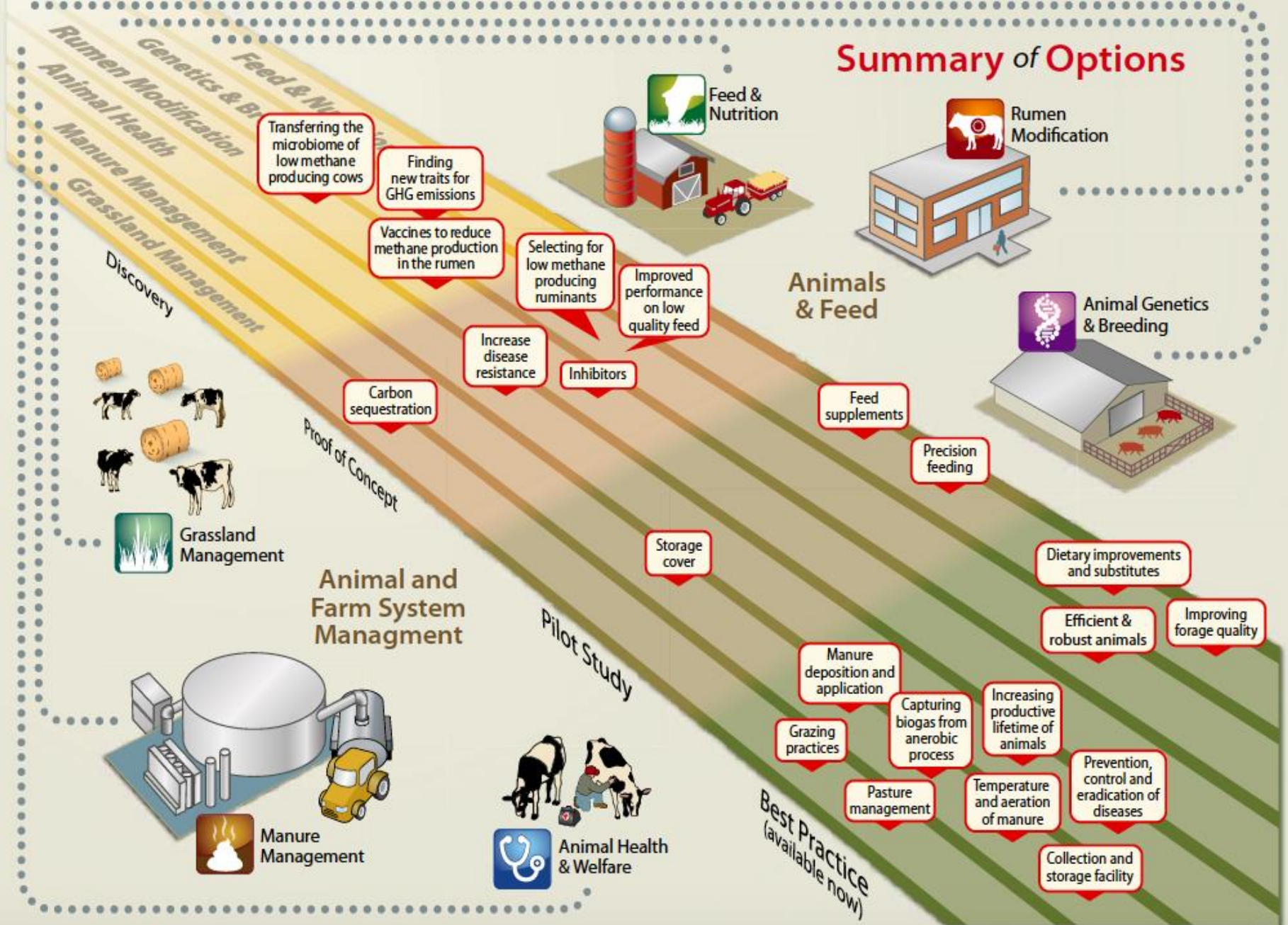
Meat and Dairy company emissions in MtCO₂e (2016); Oil company emissions (2015)



TOP 5 MEAT AND DAIRY EMITTERS

- 1 JBS
- 2 TYSON
- 3 CARGILL
- 4 DAIRY FARMERS OF AMERICA
- 5 FONTERRA GROUP

Summary of Options



A sustainable development framework for Dairy

- A collaborative **Framework** versus Standards
- **Continuous improvement** versus *point in time* reporting
- **Honest** and **transparent** approach that recognizes we need to improve, versus simply trying to convince everyone we are right
- A single **inclusive** Framework that allows the entire industry to participate, versus multiple exclusive programs that try to define right and wrong - winners and losers
- A Framework that will deliver **global alignment, connection** and **quantified progress** across the whole value chain

A Sustainable Development Framework for Dairy

Align

Connect

Progress

Greenhouse gases

Soil nutrients

Waste

Water

Soil

Biodiversity

Market development

Rural economies

Working conditions

Product safety
and quality

Animal care



2 types of DSF membership

- **Implementing Members**
- **Aggregating Members**

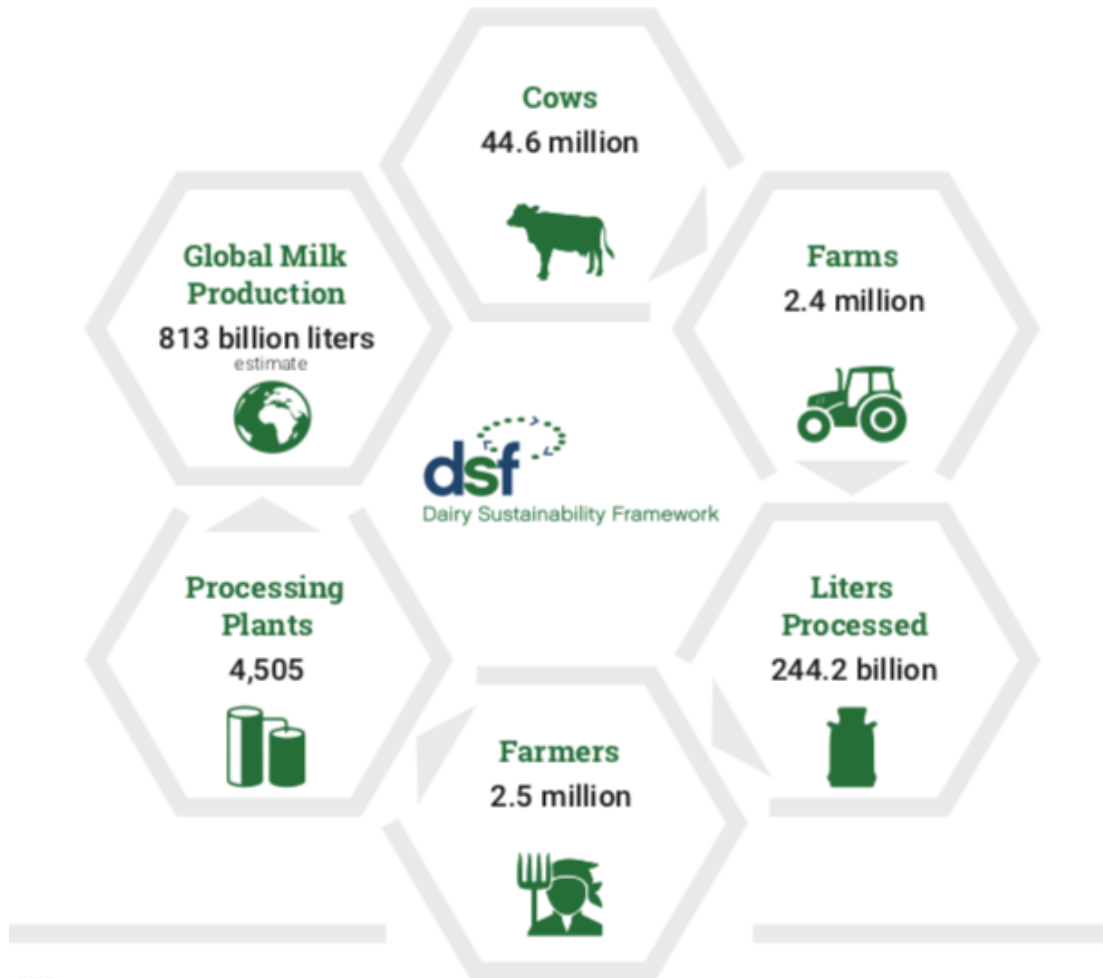


Membership Commitments

- Form local management Group
- Undertake a materiality analysis
- Prioritize the 11 criteria
- Select focus priorities
- Implement improvement/ mitigation programs
- Targets/KPI's and milestones
- Include DSF Indicators
- Reports at the required reporting interval

The Reporting Transition

From the nice story.....



Indicator Metric Development

- 2.5 years
- Consultative process with membership
 - Member and ADCO consultation
 - Public consultation
- 2 indicators - 2016
- 5 indicators – 2017
- 4 indicators 2018
 - ***2019 Reporting – 7 indicators***
 - ***2020 reporting – all 11 inidcators***

Nice story with underpinning evidence!



Rural Economies
Strategic Intent: The dairy sector contributes to the resilience and economic viability of farmers and rural communities
Indicator Metric: Annual payments made to farmers for milk
Measurement: Annual Milk Tonnes Sold x Annual Average Milk Price



Market Development
Strategic Intent: Members along the dairy value chain are able to build economically viable businesses through the development of transparent and effective markets
Indicator Metric: Process to inform on opportunities and challenges
Measurement: Number of processes implemented

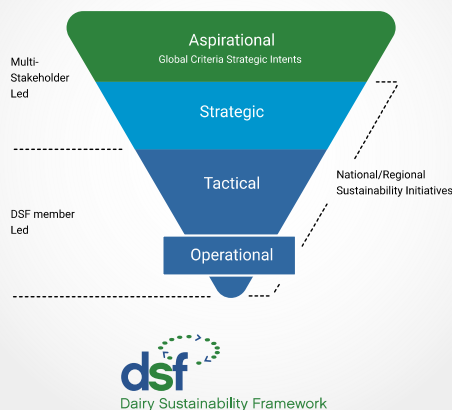



Waste
Strategic Intent: Waste generation is minimized and, where unavoidable, waste is reused and recycled
Indicator Metric: Farm Waste Management Plan (WMP) and processor Mass of Waste to Landfill per year
Measurement: Number of farm WMPs implemented and reporting of waste mass volumes



Product Safety & Quality
Strategic Intent: The integrity and transparency of the dairy value chain is safeguarded, so as to ensure the optimal nutrition, quality and safety of products
Indicator Metric: Product Safety & Quality (PS&Q) recall plan and reported recalls
Measurement: Number of organizations implementing a PS&Q recall plan and number of public product recalls


The process of setting goals is hierarchical, and it comprises the key players in the global dairy sector. The DSF is responsible for establishing and maintaining the 'aspirational goals' for the sector through a consultative process.


Animal Care
Strategic Intent: Dairy animals are treated with care, and are free from hunger and thirst, discomfort, pain, injury and disease, fear and distress, and are able to engage in relatively normal patterns of behavior
Indicator Metric: Somatic Cell Count (SCC)
Measurement: 1000's of cells per mL of milk




Working Conditions
Strategic Intent: Across the dairy value chain, workers operate in a safe environment and their rights are respected and promoted
Indicator Metric: Farm/Facility Safety Plan (FSP)
Measurement: Number of FSPs implemented




Biodiversity
Strategic Intent: Direct and indirect biodiversity risks and opportunities are understood and strategies to maintain or enhance it are established
Indicator Metric: Biodiversity Plan (BP)
Measurement: Number of BPs implemented



Water
Strategic Intent: Water availability, as well as water quality, is managed responsibly throughout the dairy value chain
Indicator Metric: Effluent Management Plan (EMP) & Water Use Efficiency
Measurement: Number of EMPs implemented and number of liters of water required to produce a kilogram of product (processing level)



Soil Quality & Retention
Strategic Intent: Soil quality and retention is proactively managed and enhanced to ensure optimal productivity
Indicator Metric: Soil Quality Management Plan (SQMP)
Measurement: Number of SQMPs implemented



Soil Nutrients
Strategic Intent: Nutrient application is managed to minimize impacts on water and air, while maintaining and enhancing soil quality
Indicator Metric: Nutrient Management Plan (NMP)
Measurement: Number of NMPs implemented



Greenhouse Gas Emissions
Strategic Intent: GHG emissions across the full value chain are quantified and reduced by all economically viable means
Indicator Metric: GHG emissions using the IDF methodology
Measurement: Level of GHG emissions

Reporting

- Commitment to report on priority indicators
- By March 31 each year
- Report the delta change each year/reporting period

Global dairy priorities

DSF Criteria	% of DSF “production” that has prioritised
GHG Emissions	72%
Soil Nutrients	63%
Soil Quality	52%
Water Availability & Quality	65%
Biodiversity	79%
Working Conditions	57%
Animal Care	93%
Waste	12%
Market Development	12%
Rural Economies	13%
Product Safety and Quality	27%

Animal Care



Strategic Intent: Dairy animals are treated with care, and are free from hunger and thirst, discomfort, pain, injury and disease, fear and distress, and are able to engage in relatively normal patterns of behavior

Indicator Metric: Somatic Cell Count (SCC)

Measurement: 1000's of cells per ML of milk

Animal Care – *Progress*

scc

Prioritizing – 93% (Baseline 79%)

Baseline 2016 - 288,000

Reporting 2017 - -3%

2018 - *delta change*



Working Conditions

Strategic Intent: Across the dairy value chain, workers operate in a safe environment and their rights are respected and promoted

Indicator Metric: Farm/Facility Safety Plan (FSP)

Measurement: : Number of FSP's implemented

Working Conditions – *Progress*

Facility Safety Plans

Prioritising – 57% - (Baseline 20%)

Baseline	2017	85
	2018	<i>delta change</i>

Soil Nutrients



Strategic Intent: Nutrient application is managed to minimize impacts on water and air, while maintaining and enhancing soil quality

Indicator Metric: Nutrient Management Plan (NMP)

Measurement: Number of NMP's implemented

Soil Nutrients – *Progress*

Nutrient Management plans

Prioritising 63.2% (Baseline 16%)

Baseline 2017 15340

2018 *delta change*



Emissions - Key Findings

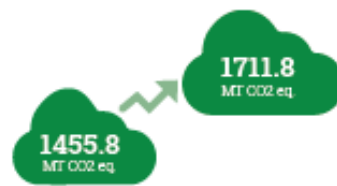


The Sector is already part of the solution to limit climate change



30% increase in milk production.

Dairy farming is becoming more efficient. Emissions per unit of product are falling but absolute emissions are rising.

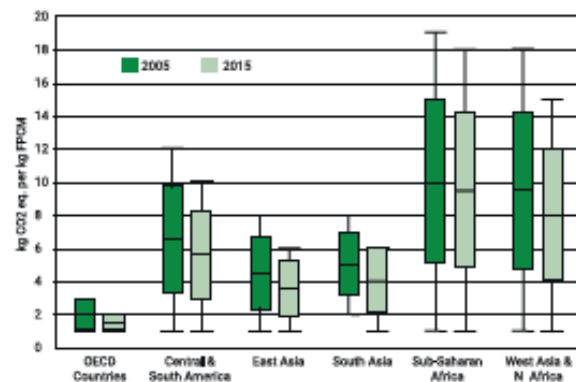


Due to increased demand for high quality nutrition, total GHG **emissions from the dairy sector have increased by about 18%.**



Emission intensity over the 10 years has **reduced by 11% from 2.8 to 2.5 kg CO₂ eq./kg FPCM.**

Without the efficiency improvements made by the sector, total emissions from the dairy cattle sector **would have increased by almost 38%** over this period to deliver the same amount of product.



The largest gains in emission intensity reduction have occurred in low-and-middle income countries with traditionally low productivity. In these countries the concept of emission intensity remains the most attractive mitigation route because it allows for the harnessing of synergies between food security, development objectives and climate change mitigation.

All dairy regions have improved through increased **productivity per animal, increasing farm management efficiency and increased feed efficiency.**



Dairy Sustainability Framework

Thank you

www.dairysustainabilityframework.org



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