Global Advances in dairy sustainability

Driving change across the value chain

Brian Lindsay
Director – Dairy Sustainability Framework
Global Sector Lead – Sustainability –
Global Dairy Platform

dsf
Dairy Sustainability Framework
REPORTING SECTOR PROGRESS SINCE 2013

Selko

trouw nutrition
a Nutreco company

DairyNutriVision 2024

Need to widen the ‘blinkers’ to fully appreciate the value of dairy and the impact (or potential) of our actions

….and how we tell that story!

The Dairy Sector

1 billion
people strong

600 million
people living on farms

400 million
additional people are supported by the full time jobs that are created in support of dairy farming

240 million
people are employed, directly or indirectly, in the dairy sector

133 million
dairy farms

37 million
farms led by women, **80 million** women employed in dairying

The Dairy Sustainability Framework

The Sustainability Monitoring and Reporting Framework for Global Dairy

A vibrant dairy sector committed to continuously improving its ability to provide safe and nutritious products from healthy cattle, while:

1. Preserving natural resources

2. Ensuring decent livelihoods across the industry

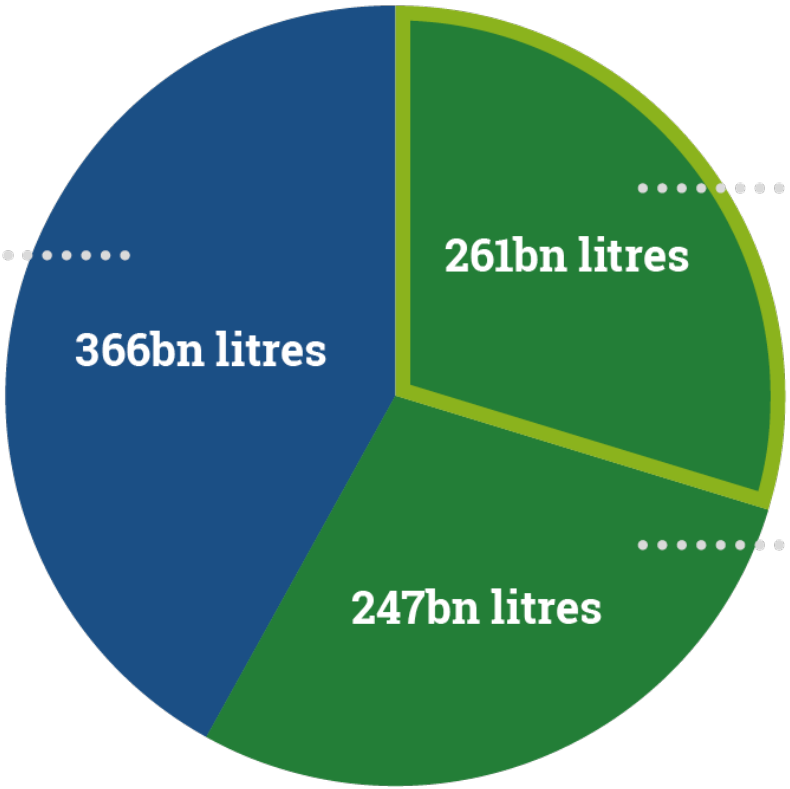
DSF and Global Milk Production - 2022

Global Milk Production: 874 Billion Litres*

DSF milk volume: 261 Billion Litres

42% Informal Milk Market**

Milk sold through unstructured, unprocessed channels or consumed directly in the home



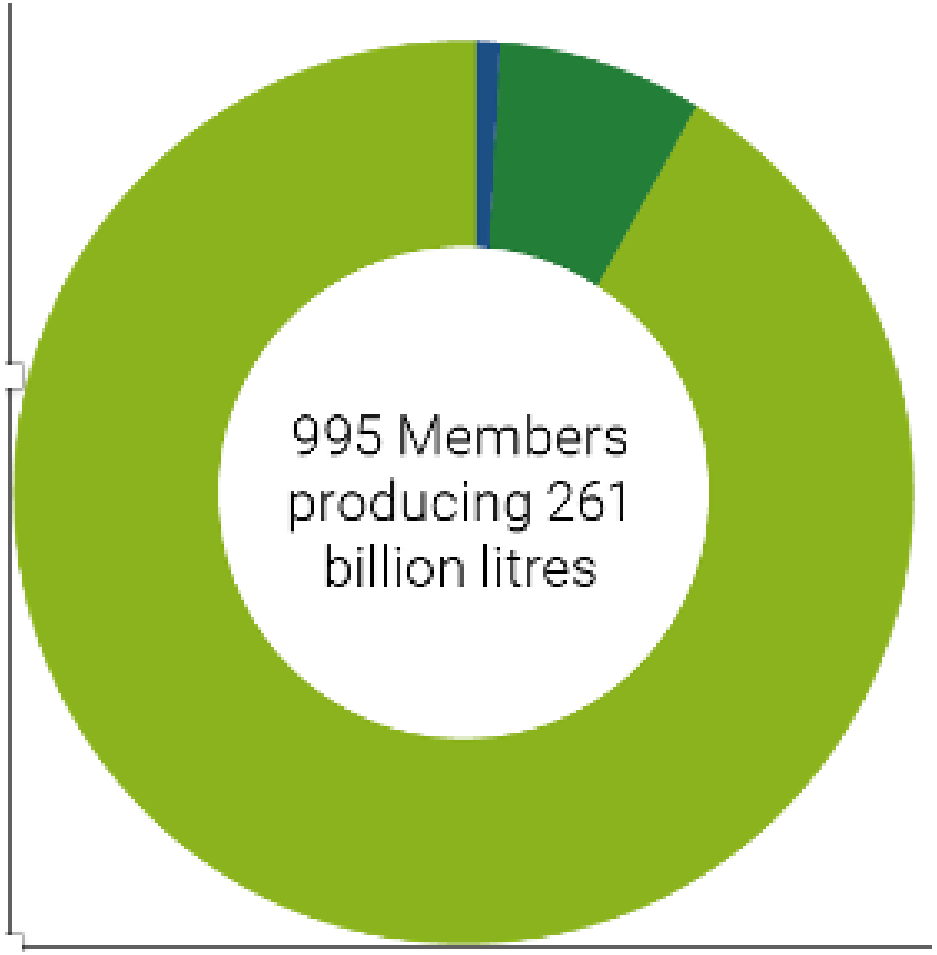
DSF represents more than 50% of the global formal milk market

58% Formal Milk Market**

**FAO*

***IFCN Dairy Network Estimate*

Age and size does actually matter!



Governance

Piercristiano Brazzale	Dr David Nation
Donald Moore	Alexander Anton
Dionys Forster	Peter Ngaruiya
Gary Wertish	Dr Ariel Londinski
Meneesh Shah Batbaatar Bayarmagnai	Barbara O'Brien

Advisory

DSF ADCO – Chaired by the IDF President

New DSF members in 2022

+301
farms

+280,740
cows

+6
processing plants

+586
dairy farmers

+11,009
employees

+1.4 billion
litres of milk

2022 Snapshot - Total Membership

487,712
farms

34 million
cows

3,211
processing plants

585,029
farmers

2.4 million
employees

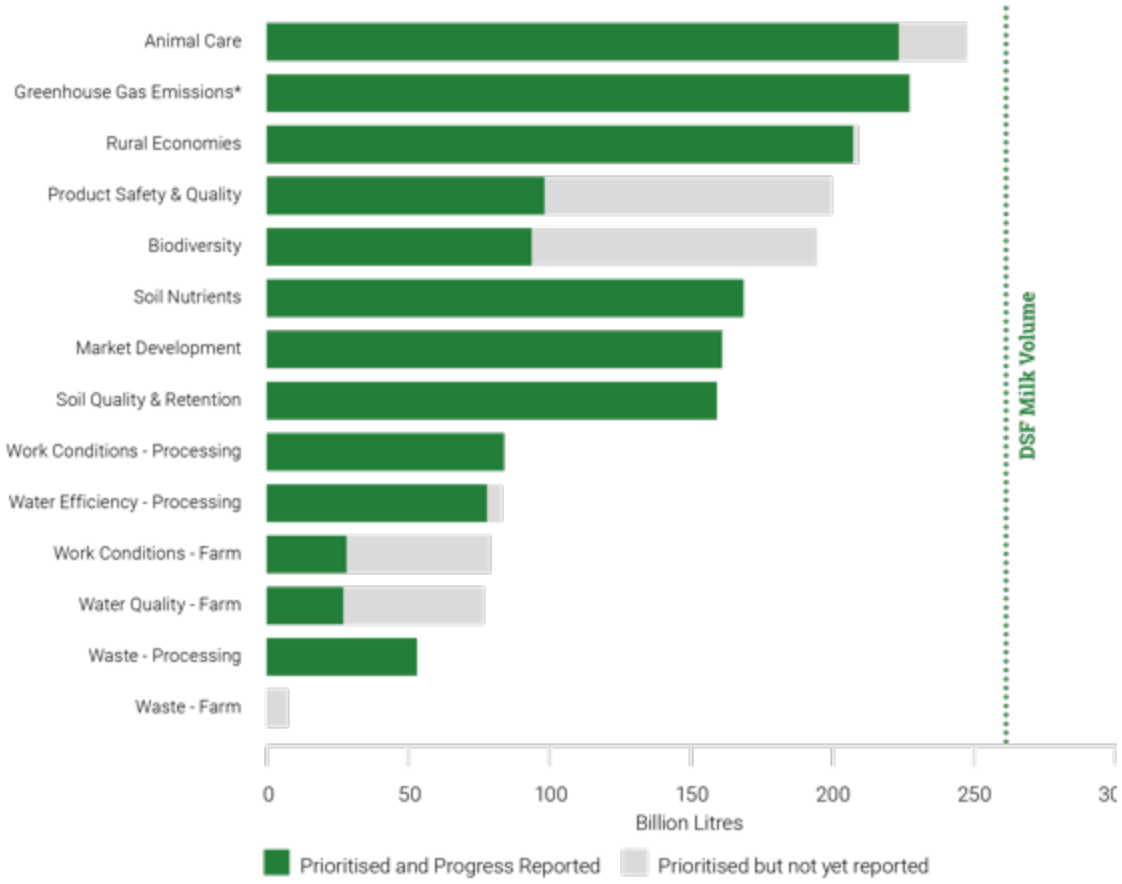
261.2 billion
litres of milk

>25 million
hectares

2022 DSF Milk Volume, Priorities and Reporting

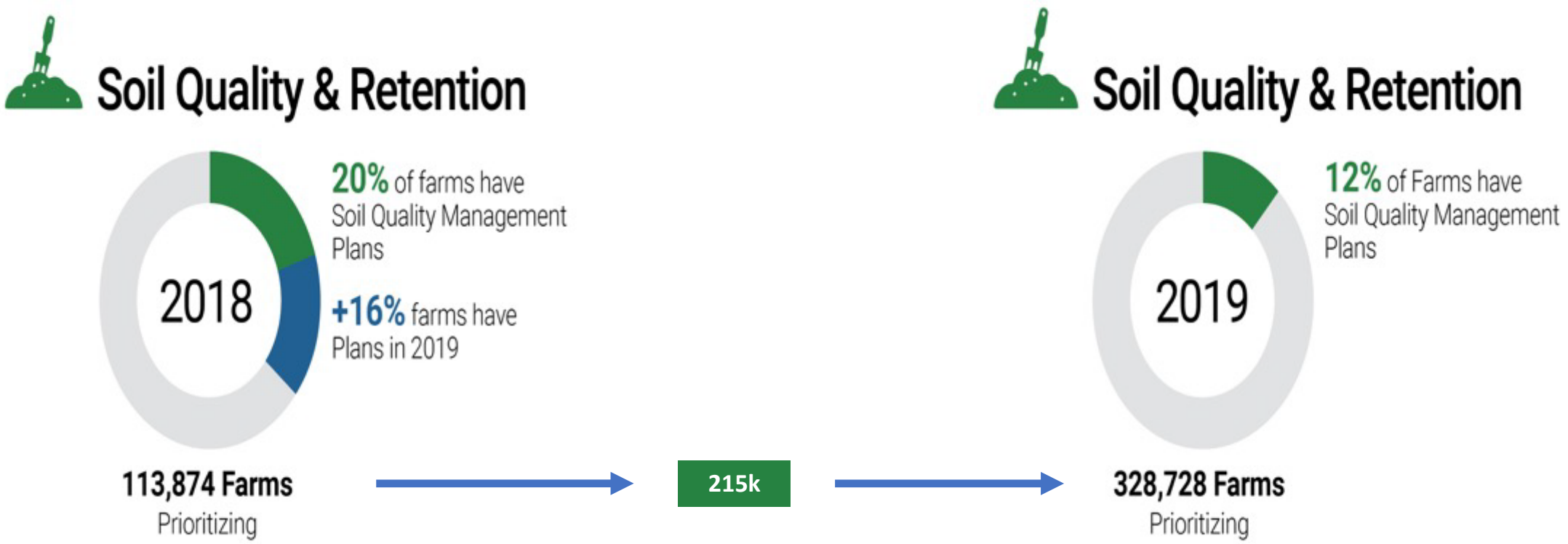
Milk Production in Billion Litres

- For the first time, Animal Care was the number one priority for DSF members, closely followed by GHG emissions.
- Rural Economies was the third most prioritised Criteria, reflecting the increasing emphasis on economic sustainability.



*Reporting for entire global dairy sector provided by FAO analysis.
Water, Working Conditions and Waste Criteria have two indicator metrics as they cover both farm and processing levels of the dairy value chain.

Building the Narrative



Dairy Does Good!

Gender and Employment

Dairy Farmers

DSF Volume of milk reporting
24%

Dairy Farm Employees

DSF Volume of milk reporting
24%

Milk Processing Employees

DSF Volume of milk reporting
35%

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Dairy Sustainability Framework
REPORTING SECTOR PROGRESS SINCE 2013

DSF Annual Sustainability Progress

2022 Calendar Year Reporting

Progreso anual del DSF en materia de sostenibilidad

Informe anual de 2022

DSF - Progresso Anual em Sustentabilidade

Relatório do ano de 2022

Progrès annuels du DSF en matière de développement durable

Rapport de l'année civile 2022

年度可持续发展进展

2022 日历年报告

Dairy Sustainability Framework
REPORTING SECTOR PROGRESS SINCE 2013

2023 DSF Reporting - Headlines

265 Billion litres
(+3.6 bn litres)

30% of global milk production

52% of global formal milk production

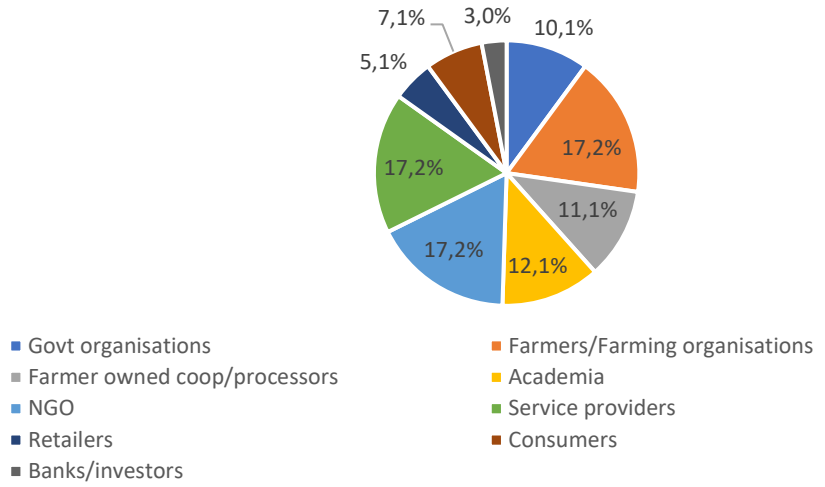
Animal Care remains at no.1 position followed by

- GHG emissions
- Rural economies
- Biodiversity

Over 1000 organizations providing data for the DSF

- **Gender** - reporting across the value chain – Rise in numbers reporting

Types of organisations represented in DSF Members' Local Management Groups



New Stage 1 membership level created for organizations initiating their sustainability journey

GLOBAL DAIRY PLATFORM
KNOWLEDGE · INSIGHT · GUIDANCE

IFAD
INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT

EXPERIENCE THE NATURAL

Amul
The Taste of India

VINAMILK

झारखण्ड राज्य सहकारी दुग्ध उत्पादक महासंघ लिमिटेड
The Jharkhand State Co-operative Milk Producers' Federation Limited
Managing Director

JMF: Planning: DSF: 595

Dated 20-02-2024

Group Head (Cooperative Services)
National Dairy Development Board
Anand, Gujarat
Pin-388001

Subject: - Acceptance letter of Proposal for Participation in the Dairy Sustainability Framework Stage-I Pilot Study

Reference: - Your Letter no. CS: DSF: JMF: 9731 Dated 08-02-2024

Dear Sir,

This is in reference to your above referred letter, and our VC Discussion Dated 16th February 2024.

We do accept the Proposal for Participation in the Dairy Sustainability Framework Stage-I Pilot Study. The preferred criteria of study for Jharkhand Milk Federation would be Rural economies.

We look forward to NDDB for a template as well as follow up action on the matter.

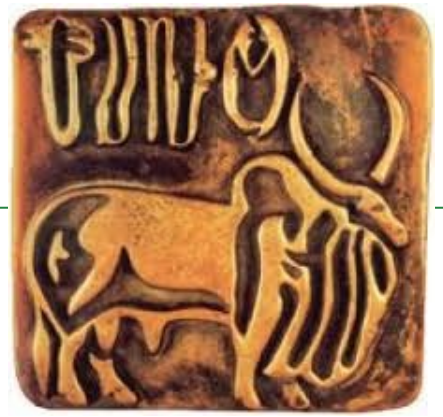
Regards,

For the Jharkhand State Cooperative Milk Producers' Federation Limited

(S K Singh)

Farmers' Training Centre Campus, Sector-2, HEC, Dhurwa, Ranchi - 834004, Phone : 0651-2443055, E-mail : jmfed2013@gmail.com

- Est 2013
- 55000 Farmers
- 145,000 Kg/milk/day



Shreeja
Mahila Milk Producer Company

SMMCL:CE:NDDB:DSF:

14 February 2024

Group Head (Cooperative Services)
National Dairy Development Board
Anand – 388001 (Gujarat)

Sub: Expression of gratitude for participation in the DSF Stage-I pilot
Ref: Your letter No: CS:DSF:Shreeja:9730 date 08th February 2024

With reference to the aforementioned correspondence, we are delighted to convey our appreciation for the privilege extended to us to participate in the Dairy Sustainability Framework Stage-I pilot (DSF).

We extend our sincerest gratitude to the NDDB for extending this invaluable opportunity to us. Your trust in our capabilities is truly humbling, and we are committed to making the most of this opportunity to contribute meaningfully to the DSF.

Thanking you,

Yours faithfully,

Thimmappa S R
In-charge Chief Executive

- Est 2014
- All women producer company
- 127,000 Farmers
- 561,000 Kg/Milk/day

SHREEJA MAHILA MILK PRODUCER COMPANY LIMITED
CIN. U01403AP2014PTC094771, Registered Office : 3rd & 4th Floors, Plot No. 29 & 30, Bachala Towers, S.G.S. Arts College Road, New Indira Nagar, Tirupati - 517501, Andhra Pradesh, Ph.: 0877 - 2242173, 2242727, email: info@shreejamilk.com

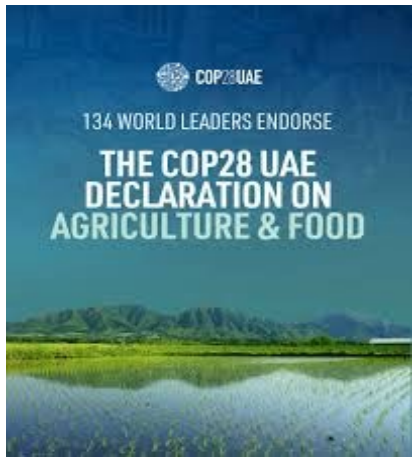
COP27 SHARM EL-SHEIKH EGYPT 2022

COP28 UAE

COP29 Baku Azerbaijan UN CLIMATE CHANGE CONFERENCE

COP30 BRAZIL

United Nations Climate Change



Harmoniya

UNITED NATIONS FOOD SYSTEMS SUMMIT 2021

FAO FIAT PANIS

FAST Food and Agriculture for Sustainable Transformation Initiative

Global Methane Pledge

AIM FOR CLIMATE

CLIMATE WEEK NYC

UNEA United Nations Environment Assembly of the United Nations Environment Programme

Transformation in the Dairy Sector:

Pathways to Dairy Net Zero

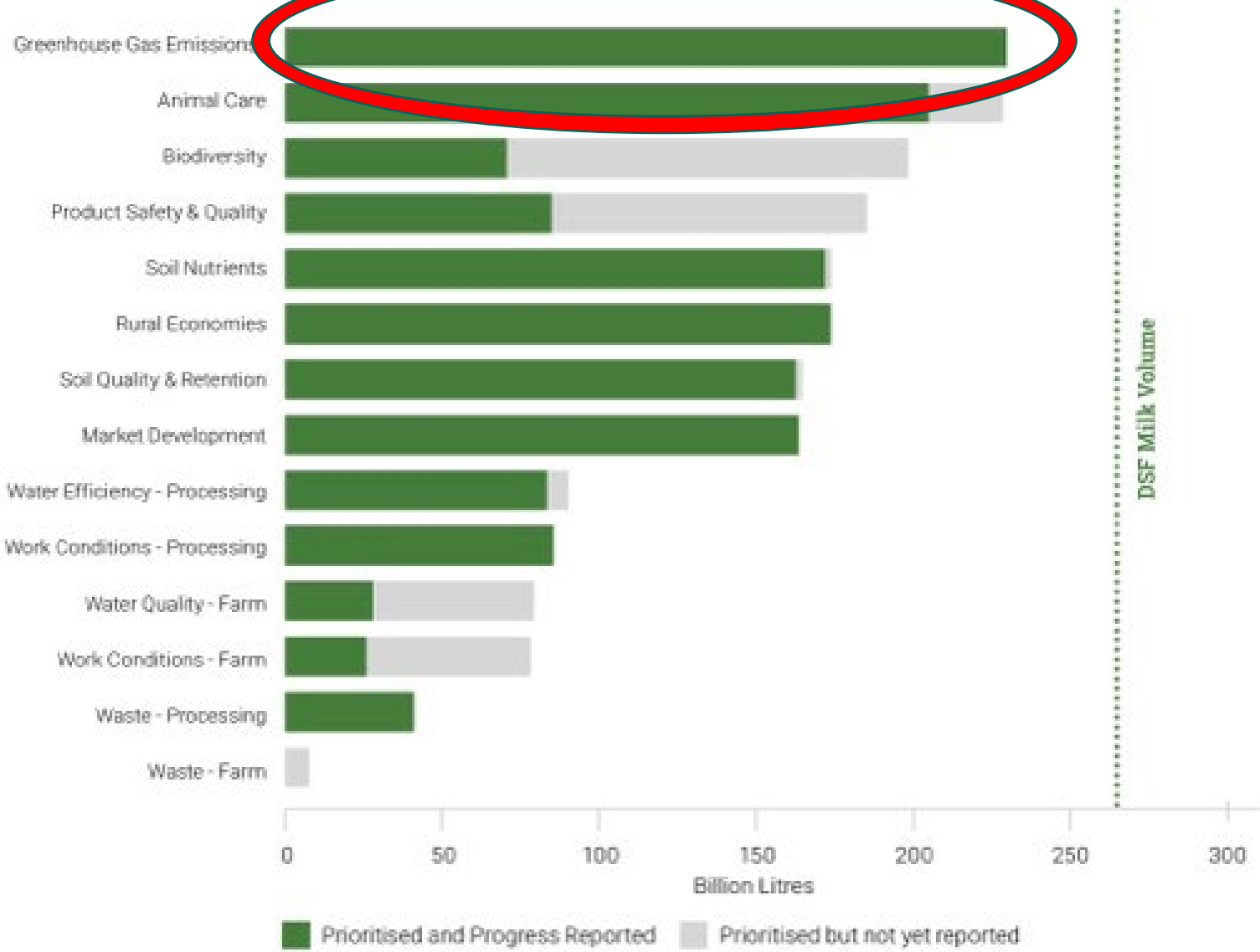
PATHWAYS TO DAIRY NET ZERO.

Tracking & reporting

2021 DSF Milk Volume, Priorities and Reporting

Milk Production in Billion Litres

- The majority of new members are yet to complete the process of prioritising the DSF Criteria, this impacts the % criteria prioritisation when considered in relation to total DSF milk volume
- The fluctuations associated with these [illegible] reflected throughout the report



*Reporting for entire global dairy sector provided by FAO analysis.

dsf
Dairy Sustainability Framework

Pathways to Dairy Net Zero

A collaboration between:

GLOBAL DAIRY PLATFORM

Fédération Internationale de Laiterie · FIL IDF · International Dairy Federation

ILRI
INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE

dsf Dairy Sustainability Framework

SAI PLATFORM

IFCN Dairy Data · Knowledge · Inspiration

Knowledge partner

GLOBAL RESEARCH ALLIANCE ON AGRICULTURAL GREENHOUSE GASES

Supported by

FAO FIAT PANIS

PATHWAYS TO DAIRY NET ZERO.

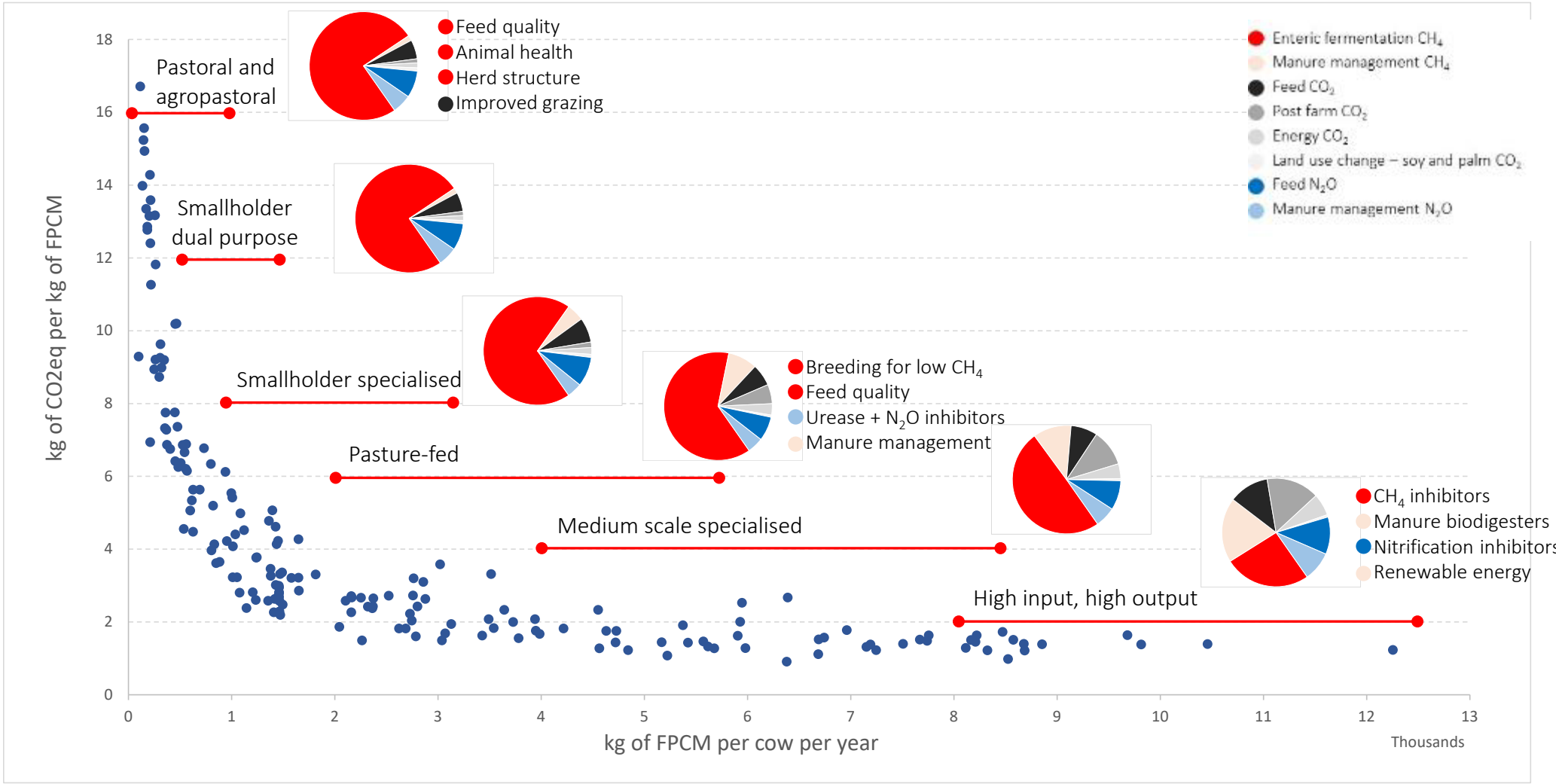
OBJECTIVES

PATHWAYS TO DAIRY NET ZERO.

- Systematically ***introduce or enhance climate action*** in global dairy systems
  - food and nutrition security
  - livelihoods and economic growth
  - animal health and welfare
  - climate and natural resource use
- Develop ***pathways*** for all dairy systems
- Stimulate commitments + Action

Typologies and Targeted Actions

PATHWAYS TO DAIRY NET ZERO.



Source: FAO GLEAM 3, unpublished 2020 data

Barriers to Adoption

Changing **existing practices** through **known** levers

~40% **reduction**

Scaling existing and emerging **technologies**

~35% **reduction**

Long term, **fundamental and applied research**

~25% **reduction**

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REPORTING SECTOR PROGRESS SINCE 2013

Progress in developed dairy economies

PATHWAYS TO DAIRY NET ZERO.

4 Tracks guide regional work:

- Methods / Frameworks /Proof points
- Accelerated Implementation & R+D
- Policy Making and Partnerships
- Pilots / Lighthouse Projects

Globally seek 3-4 Collaborative actions:

1. **Carbon Accounting**
   Ensuring the sector is recognized for its emission reductions efforts is key to the Pathways initiative.
   SCIENCE BASED TARGETS
   GREENHOUSE GAS PROTOCOL
2. **Dairy Processing**
   Taskforce to investigate latest advances in dairy processing technologies to tackle GHG emissions.
   Tetra Pak®
3. **Methane**
   Develop science-based narrative on dairy and methane emissions and actions underway
4. **Animal Nutrition – Recent workshop identified 4 key work streams**

Carbon Accounting

PATHWAYS TO DAIRY NET ZERO.

GREENHOUSE GAS PROTOCOL

Land Sector and Removals Guidance
Part 1: Accounting and Reporting Requirements and Guidance

Supplement to the GHG Protocol Corporate Standard and Scope 3 Standard

Area	Topic	Outcome
1	**Definitions**	Dairy sector agreed interpretation and understanding of existing guidance and terms
2	**Mass Balance/Sourcing Region approach**	Develop a robust position for an alternative to the Land Management Unit requirement for traceability
3	**MRV Safeguarding**	**Project MRV** Develop a GHG-P recognized MRV and appropriate safeguards for incorporating project-based mitigation outcomes in corporate reporting
		Sourcing Region MRV Develop a GHG-P recognized MRV and appropriate safeguards for incorporating sourcing region mitigation outcomes incorporate reporting
		Standard dairy sector *Inset* Protocol development Establish a standard dairy inset protocol for the dairy value chain.
4	**Dairy Sector Guidance**	Guidance at a principal level to deliver the required inventory adjustments for '*offsets*' and '*insets*'
5	**Land Carbon Losses/Carbon Opportunity Cost**	To support the development the concept if retained in the LSRG for application by the global dairy sector
6	**Biogas**	Explore the opportunities in the LSRG for farmers generating biogas
7	**Boundaries**	Opportunities for farmers with non-contiguous 'assets' linked to the dairy platform identified and tested.
8	**Managing change in reporting methodological updates**	To explore how an aligned approach to updating and reporting corporate data can be established

GLOBAL DAIRY PLATFORM

POSITION PAPER:

Land Management Unit Traceability for Carbon Removals May Impede, Rather Than Accelerate Greenhouse Gas Mitigation Action in the Global Dairy Sector

September 2023

Abstract

The GHG Protocol is finalizing its Land Sector & Removals Guidance (LSRG) and considering chain of custody models and traceability requirements for carbon reduction/removal accounting and reporting. Finalized guidance requiring physical traceability to the individual land management unit (LMU) level would impose significant barriers to climate change mitigation activities and result in negative economic consequences for commodity agriculture, including the global dairy sector. LMU traceability for accounting of GHG interventions and improvements along dairy value chains would encourage increasingly segregated supply chains, effectively working against the dairy sector's robust sustainability management agenda by hampering the ability to operate with efficiencies of scale.

Develop a 'built-on-GHG-P' dairy sector Mass Balance Chain of Custody guideline, with sufficient safeguards to protect the valuation of reductions through the value chain avoiding unnecessary bureaucracy.

References and footnotes

Animal Nutrition Pillar of work

1. Optimizing Dairy Farming Systems
2. Improving Nutrition Systems
3. Improving Innovation Adoption
4. Building a Database of GHG Mitigation Innovations

Progress in emerging dairy economies

Potential Early Adopters

Region	Early Adopters	Status
Africa	Tanzania	Agreed
	Kenya	Agreed
	Rwanda	Agreed
	Uganda	Agreed
Americas	Uruguay	Agreed
	Costa Rica	Agreed
	Colombia	Agreed
Asia	Pakistan	Agreed
	Vietnam	Agreed
	India	In discussion
Dairy GHG %	~31%	

Global Methane Pledge

PATHWAYS TO DAIRY NET ZERO.

GREEN CLIMATE FUND

BANCO DE DESARROLLO DE AMÉRICA LATINA

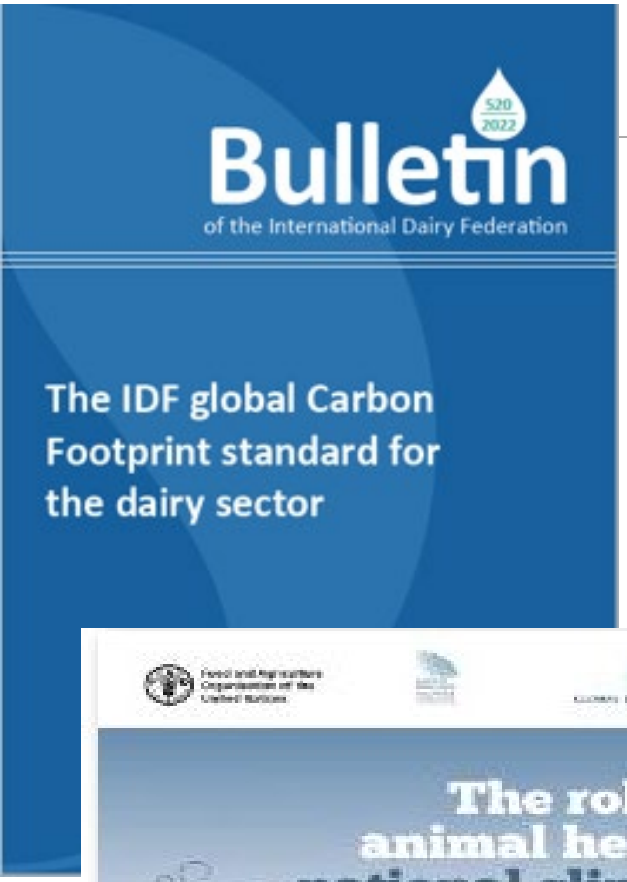
IFAD
Investing in rural people

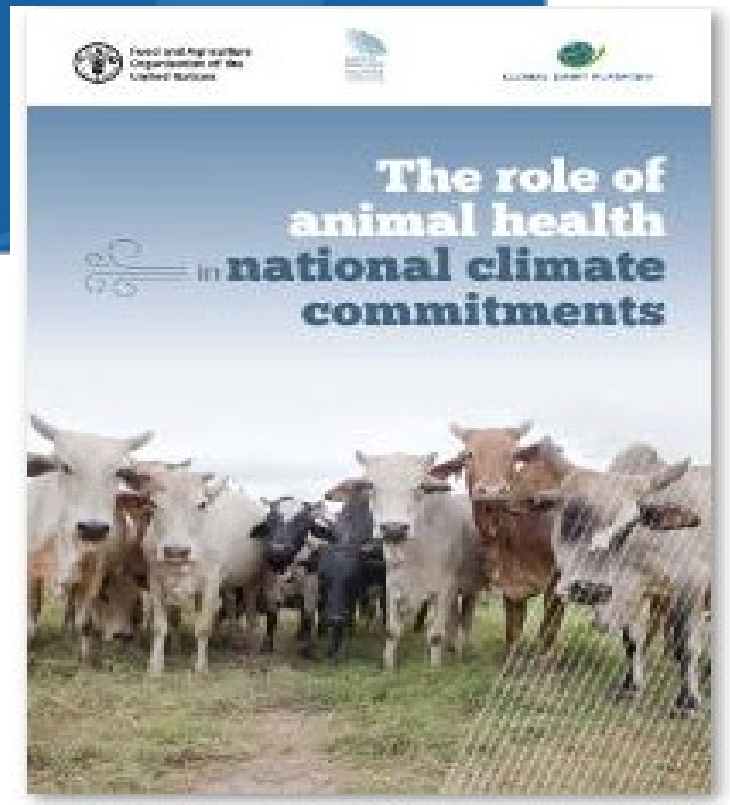
FAO FIAT PANIS

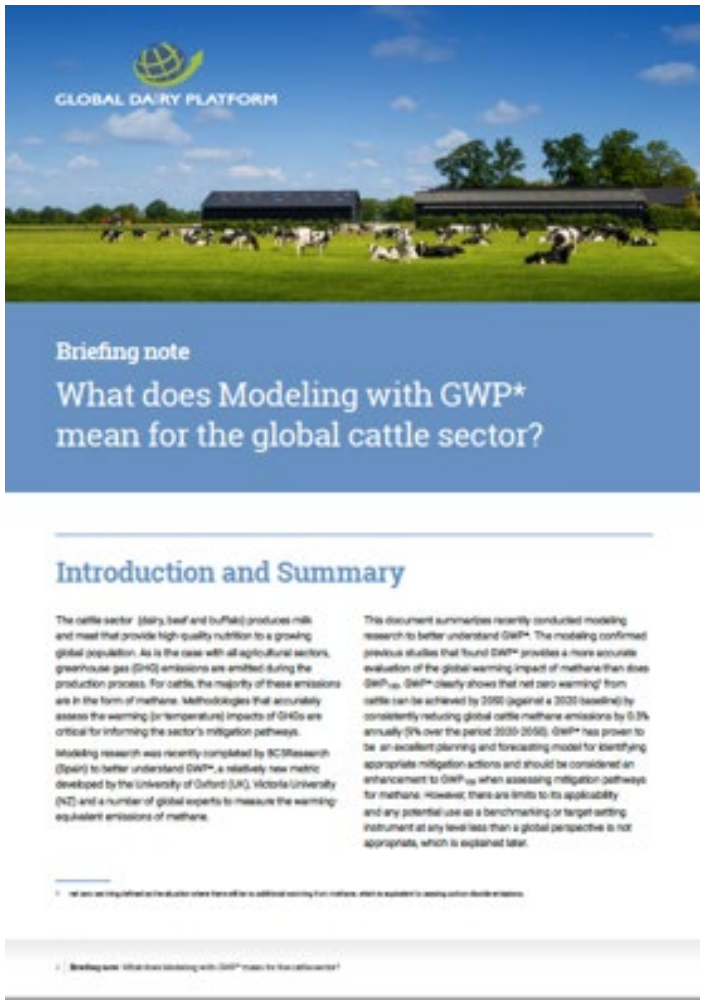
GLOBAL DAIRY PLATFORM

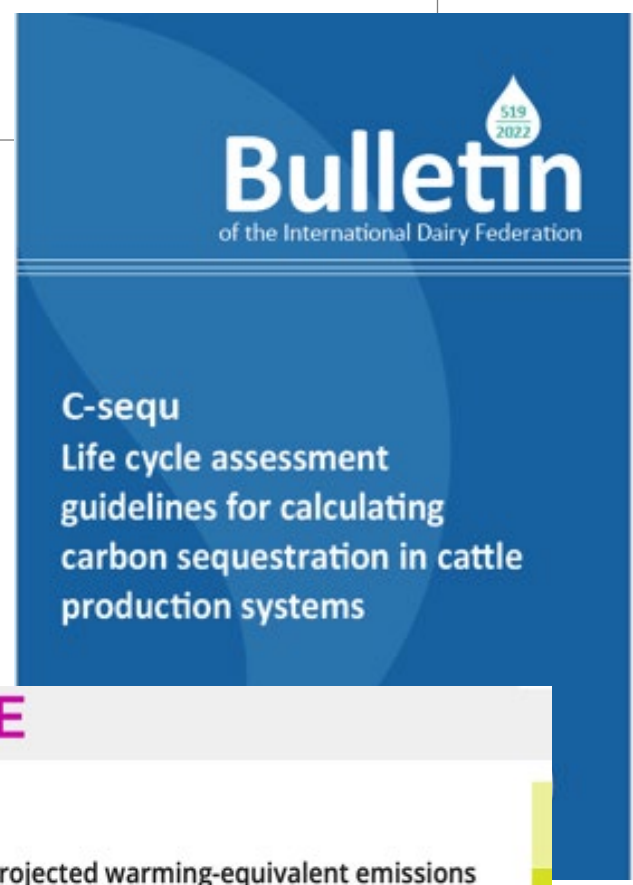
Global Methane Hub

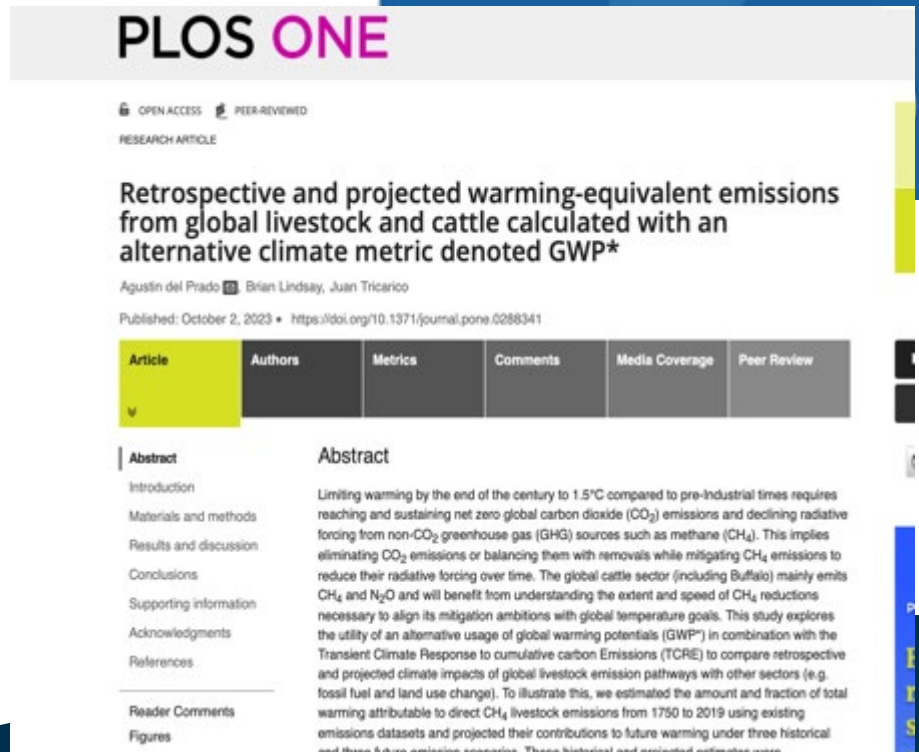
Little Steps – Large Impact











MiLCA | Protocol for including Mitigation actions in Agricultural Lifecycle Assessment

PATHWAYS TO DAIRY NET ZERO.

- New Technologies coming to the market (additives)

- Initial criteria before consideration by any organization
- Science
- Data quality
- Conservative reporting

- Science based
- 6-week public consultation
- Documented responses
- ? Discounting factor - x% of cases we are confident in this outcome

- Science only informs the statistical approach to be applied
- Balance – robustness - Application

Project collaborators

Arla, DANONE, Fonterra Dairy for life, FrieslandCampina, Nestlé, New Zealand Agricultural Greenhouse Gas Research Centre

Partner organization

Global Research Alliance on Agricultural Greenhouse Gases

References and footnotes

The Power of Dairy!