

# 2020 Reporting

The Dairy Sustainability Framework monitors and reports the sustainability progress of the global dairy sector. The DSF accounts for approximately 30% of global milk production and measures progress through 11 sustainability (economic, social and environmental) criteria and associated indicator metrics.

Data included in this report is from the 2020 calendar year and reported by DSF members in 2021. The process by which the DSF manages and processes the data is audited by the University of Nottingham (UK).

Estimated global milk production (all species) in 2020 (Source: FAO Dairy Market Review, April 2021) is 906 million tonnes. Of this, 871 million tonnes (846 billion litres) is the global dairy cow (85%) and buffalo milk (15%) production that are used for the DSF calculations.

## 2020 Highlights

### Sector Sustainability Performance

1. DSF milk volume grew by 17 billion litres in 2020, 9.7 billion litres coming from new DSF membership
2. Greenhouse Gas Emissions and Animal Care continue to be the most prioritized criteria
3. Biodiversity prioritization grew substantially with an additional 40,000 farms during the reporting period
4. Soils, Working Conditions (on farm) and Market Development all saw considerable growth in farm prioritization during the reporting period

### DSF Development

1. DSF 2020-2025 Strategic Plan published
2. Eleven DSF webinars plus the Annual Members Meeting - Connecting and aligning DSF members
3. External review of DSF Communications strategy undertaken with recommendations adopted
4. DSF implementation of DSF pilots in emerging markets Kenya, Rwanda, Vietnam, and India with the support of the International Fund for Agricultural Development and Global Dairy Platform

## New DSF members in 2020



**+225,000**  
farms



**+1.5 million**  
cows



**+536**  
Processing Plants



**+23,540**  
farmers



**+4,100**  
member employees



**+9.7 billion**  
litres milk

## 2020 Snapshot - Total Membership



**2.24 million**  
farms



**44.3 million**  
cows



**3,037**  
Processing  
Plants



**2.3 million**  
farmers



**2.1 million**  
member  
employees



**242 billion**  
litres milk

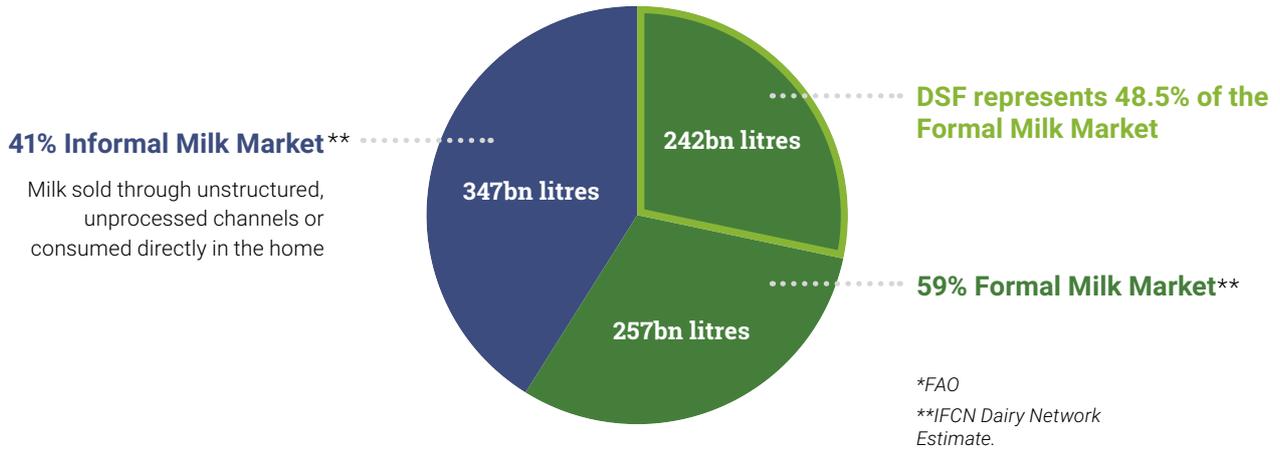


**>28 million**  
hectares

# DSF and Global Milk Production - 2020

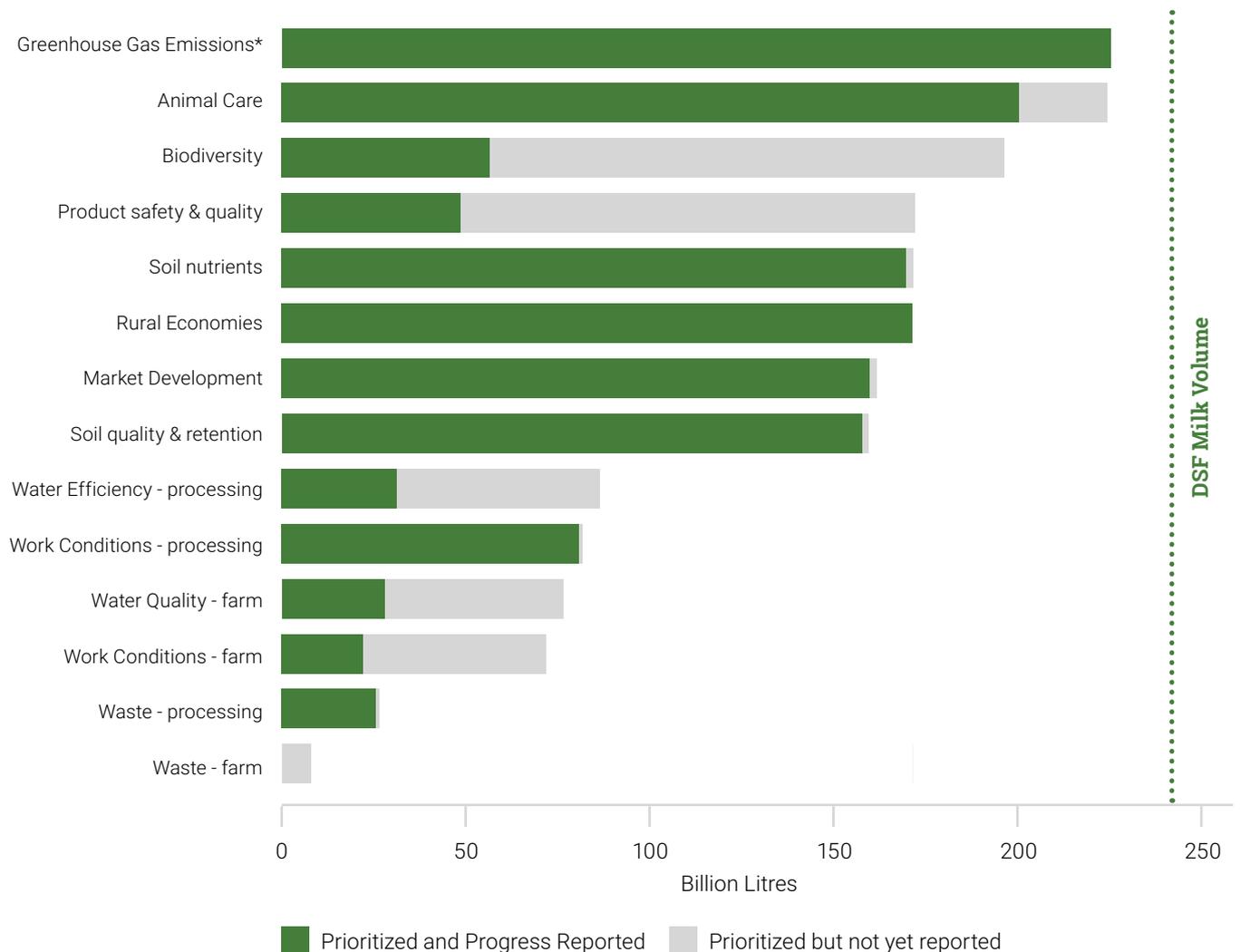
**Global Milk Production: 846 Billion Litres\***

DSF milk volume: 242 Billion Litres



## 2020 DSF Milk Volume, Priorities and Reporting

**Milk Production in Billion Litres**



\*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.

## Action on Priorities

The Covid-19 pandemic clearly created challenges for farmers and dairy organizations in execution of their sustainability programs. The DSF greatly appreciates the attention of its members in the timely production of their annual reports.

## Key

1. Criteria: e.g. GHG Emissions
2. **Strategic Intent:** When prioritized this is the members focus.
3. **Indicator Metric:** Members provide this annual reporting to the DSF
4. The progress report: 2020 aggregated reporting and new baseline
5. Supporting information: Additional information supporting the reporting.

- Members report the number of farms they represent
- Assumption: 1 plan per farm

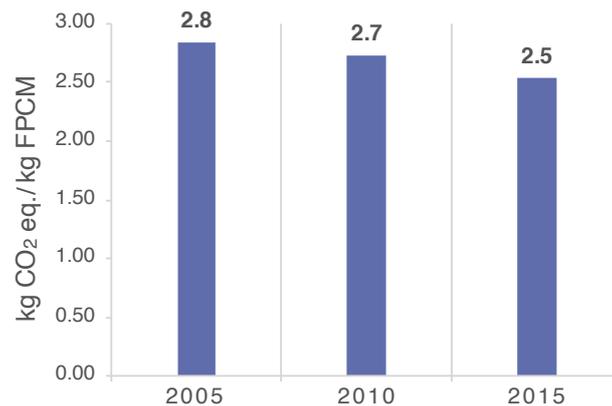
\* 2020 performance against the 2019 baseline is reported in the first doughnut in blue.

## GHG Emissions

GHG emissions across the full value chain are quantified and reduced by all economically viable means.

GHG emissions are measured by using the IDF methodology / FAO analysis.

FAO "Climate Change and the Global Dairy Sector" report, 2005-2015:



FAO GLEAM 2.0.

- <http://www.fao.org/3/CA2929EN/ca2929en.pdf>
- The DSF is working with FAO to develop the 2015-2020 update to this report.
- The 2020 report will be undertaken when FAOSTAT has been populated with the necessary data.
- DSF members who prioritise this criteria are required to undertake LCA analysis using the IDF Common Carbon Footprint Approach for the Dairy Sector.

## Animal Care

Dairy animals are treated with care and are free from hunger, thirst, discomfort, pain, injury and disease and are able to engage with relatively normal patterns of behavior.

Arithmetic mean of somatic cell count across the reporting period.

	2018	2019	2020	Change from 2019 to 2020
Volume of milk reporting (billion litres)	213.3	188.8	200.5	+11.7
Average annual weighted (by milk volume) SCC*	201,000	183,539	182,108	-0.8%

- Organizations who prioritized this criteria have remained static.
- The milk volume of those reporting this criteria increased by nearly 12 billion litres.

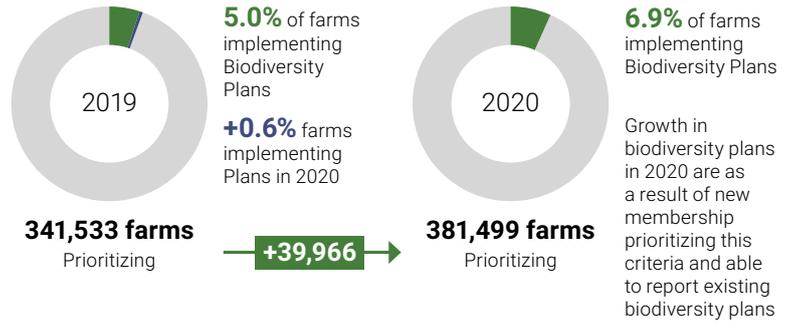
\* Reducing Somatic Cell Count (SCC) is a positive indicator of cattle health



## Biodiversity

Direct and indirect biodiversity risks and opportunities are understood and strategies to maintain and enhance it are established

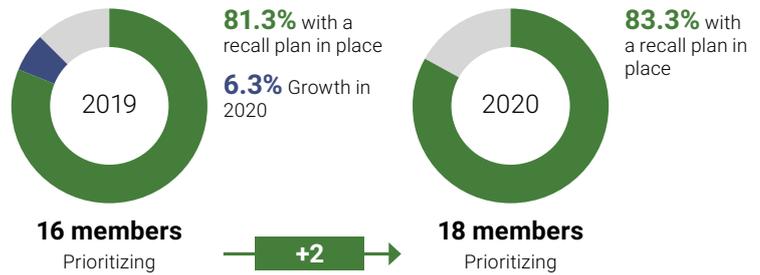
A Biodiversity plan (BP) is implemented to preserve, restore and improve biodiversity on-farm and across the supply chain - number of Biodiversity plans implemented.



## Product Safety and Quality

The integrity and transparency of the dairy supply chain is safeguarded, so as to ensure the optimal nutrition, quality, and safety of products

Implementation of a product safety and quality recall plan (PS&Q) and how many public product recalls during the reporting period.



### Product Recalls

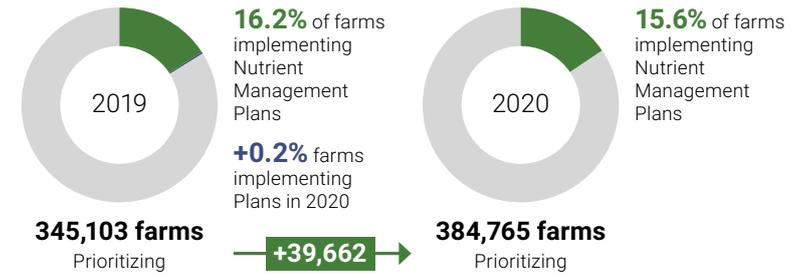
2019	2020	Change from 2019 to 2020
37	34	-3



## Soil Nutrients

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

Implementation of a Nutrient Management Plan (NMP) to enhance production and reduce water and air pollution - number of NMP's implemented.



## Rural Economies

The dairy sector contributes to the resilience and economic viability of farmers and rural communities

Total annual payments made to farmers for milk.

	2019	2020	Change from 2019 to 2020
Milk volume reporting (billion litres)	138	172	+34
Total annual payment made to farmers in US \$ (Billion)	\$59.28	\$71.75	+12.47

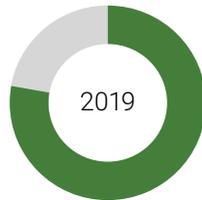
- Additional milk volume from 2019 prioritization - 4.6 billion litres
- Milk volume prioritized from new prioritization in 2020 - 8.4 billion litres
- The average milk value is around \$.42/litre.



## Market Development

Members along the dairy value chain are able to build economically viable businesses through the development of transparent and effective markets.

Process in place to inform producers of market opportunities and challenges.

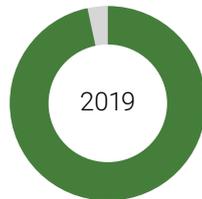


Percentage of organizations that had a process in place to inform farmers of market opportunities and challenges



**9 members**  
Prioritizing

**9 members**  
Prioritizing



**99%** farms reached  
**-2.2%** reached in 2020



**90.5%** farms reached

**313,641 farms**  
Prioritizing\*

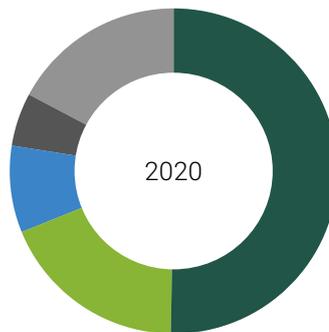
**+41,568**

**355,209 farms**  
Prioritizing

• Growth from a combination of new farms for both existing and new members.

\*Number of farms supplying DSF members that prioritized this Criteria. i.e. potential reach.

How did DSF members communicate with their supplying farmers during 2020 about market opportunities (total number of activities)?



**50.4%** Newsletter

**18.7%** Webinars

**8.5%** Farmer Meetings

**5.4%** Informal publications

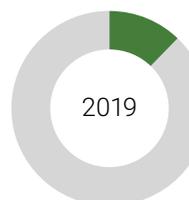
**17%** Other (videos, on-line Q and A, weekly market updates in website portal)



## Soil Quality and Retention

Soil quality and retention is proactively managed and enhanced to ensure optimum productivity.

Soil quality is maintained or improved by good management practices defined in a Soil Quality Management Plan (SQMP) - number of SQMP's implemented.



**12.4%** of farms implementing Soil Quality Management Plans

**0** change in 2020

**328,728 farms**  
Prioritizing

**+41,599**



**12.3%** of farms implementing Soil Quality Management Plans

**370,327 farms**  
Prioritizing



## Water Availability and Quality - Processing Level

Water availability as well as water quality is managed responsibly throughout the dairy value chain.

Water use efficiency for production and processing is measured - average volume of water (litres) per volume of product (kg).

	2018	2019	2020	Change from 2019 to 2020
Weighted average water efficiency (litres water to produce kg product)	4.52	5.50	5.48	-0.02
Range	2.1 - 14.9	0.77 - 38.37	0.68 - 22.6	

• 36% of DSF members milk volume are **prioritizing** this criteria in 2020, +3% from 2019.

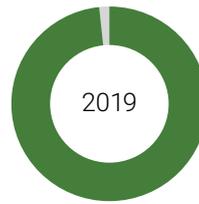
• 13% of DSF Members milk volume prioritized and **reported in 2020**, +4% from 2019.



## Working Conditions – Processing

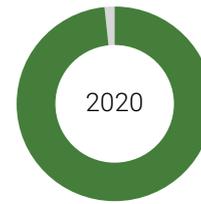
Across the dairy value chain workers operate in a safe environment, and their rights are respected and promoted.

A Facility Safety Plan (FSP) is implemented to ensure worker safety - number of FSP's implemented.



1,619 plants  
Prioritizing

98.6% of plants implementing Facility Safety Plans  
0 change in 2020



1,620 plants  
Prioritizing

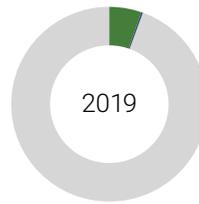
98.6% of plants implementing Facility Safety Plans



## Water Availability and Quality – Farm

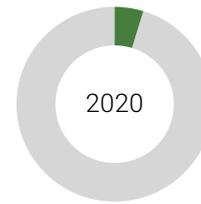
Water availability as well as water quality is managed responsibly throughout the dairy value chain.

An Effluent Management Plan (EMP) is adopted to minimize impacts to water quality - number of EMP's implemented.



262,220 farms  
Prioritizing

5.6% of farms implementing Effluent Management Plans  
-0.2% farms implementing Plans in 2020



284,604 farms  
Prioritizing

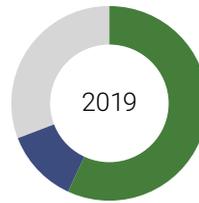
4.9% of farms implementing Effluent Management Plans



## Working Conditions – Farm

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

A Farm Safety Plan (FSP) is implemented to ensure worker safety - number of FSP's implemented.



255,573 farms  
Prioritizing

57.2% of farms implementing Safety Plans  
+12.2% farms implementing Plans in 2020



299,933 farms  
Prioritizing

64.5% of farms implementing Safety Plans



## Waste - Processing Level

Waste generation is minimized, and where unavoidable, waste is reused and recycled

Mass of waste to landfill per year

	2019	2020	Change from 2019 to 2020
No. of processing plants	323	327	+4
Mass of waste to landfill (tonnes)	45,181	48,211	+3,030



## Waste - Farm Level

Waste generation is minimized, and where unavoidable, waste is reused and recycled

Implementation of a Waste Management plan (WMP) - number of WMP's implemented.

DSF Members who have prioritized Waste at farm level are yet to have systems in place to enable the required reporting.



210,604 farms  
Prioritizing

0% report having Waste Management Plans



241,077 farms  
Prioritizing

0% report having Waste Management Plans