



GLOBAL DAIRY PLATFORM

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Recent Climate Change Summit (COP), and Several FAO-Generated Reports Released During COP: Implications for Dairy

As many of you are aware, the United Nations Climate Change Summit, COP28, took place prior to the holiday season in the United Arab Emirates. The annual summit is designed to bring countries, industry groups, and other stakeholders together to discuss the growing threat of climate change due to a variety of factors and to seek solutions that can help to avert potential climate catastrophes in the future. For the first time, the COP Summit prominently placed agriculture on the docket and numerous potential solutions (many of which were technology-driven) were discussed at length.

During the summit, the UN Food and Agriculture Organization (FAO) released three in-depth reports regarding agrifoods and global greenhouse gas (GHG) emissions. Collectively, these reports discuss actions needed to stimulate change in agrifood systems, and the financing necessary to feed the world while simultaneously improving the resilience and sustainability of the food system and reversing the continuing global rise in GHGs. All three reports have significant implications for the dairy sector.

Links to the three reports, along with summaries of each report and possible implications for the dairy sector, may be found below.

Report 1:

[Pathways Toward Lower Emissions: A Global Assessment of the Greenhouse Gas Emissions and Mitigation Options from Livestock Agrifood Systems](#)

This report draws information and recommendations based on the FAO's Global Livestock Environmental Assessment Model (GLEAM), a lifecycle analysis that considers both direct farm emissions and indirect emissions throughout the production chain. It includes factors such as enteric fermentation, feed and other inputs, as well as downstream processes such as post-farm transport, processing, and packaging of raw materials. The report highlights GLEAM data gleaned during calendar year 2015.

Key points presented in the report include:

- The global livestock sector annually produces about 810 million tons (MT) of milk, 78 MT of eggs and 330MT of meat, equivalent to about 85MT of protein. This volume of food supplies ~21 percent of total global calories per year.
- The vital role of livestock in providing not only nutrition but also livelihoods for people globally is stressed several times throughout the report.
- The livestock agrifood system is responsible for 6.2 gigatons (Gt) of carbon dioxide equivalent (CO₂eq) emissions. This accounts for roughly 12 percent of all anthropogenic GHG emissions, down from 14.5% reported by FAO in 2013.
- Interventions that may lower GHG emissions associated with livestock production include improved animal health and welfare, reductions in food loss and waste throughout the production chain, improved breeding practices, better feed quality, and technologies such as feed additives that can

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mitigate GHG production. GHG mitigation will be imperative in the face of the 20% rise in demand for animal-sourced foods that is expected by 2050, particularly in Africa and Asia.

Report 2

[Achieving SDG2 Without Breaching the 1.5C Threshold: A Global Roadmap](#)

This report ties climate action and global food security to the 17 UN Sustainable Development Goals (SDGs). It lays out a roadmap for the agriculture sector FAO suggests can lead to poverty eradication, improved food security, and nutrition, as well as better health, education, and gender equity for all, while mitigating climate change. The authors suggest that inaction in curbing carbon emissions emboldens climate action skeptics.

Key points presented in the report include:

- A three-year FAO roadmap was initiated at COP28. It culminates in investments and policy changes by COP30.
- In 2022, 739M people faced hunger, 2.4B were moderately or severely food insecure, and >3.1B lacked access to healthy diets. The situation is not projected to improve by 2030 unless action is taken.
- Though the report acknowledges that fossil fuels remain the primary contributor to GHG emissions, agrifood contributes about 30% of anthropogenic GHG emissions, and the sector faces a dilemma: should we continue to produce more food now to address immediate needs, or curb production to reduce emissions that may ensure future global health?
- A joint agenda of food security and nutrition, and climate action, is required. This is not an either/or issue, nor can the two issues remain siloed.

Report 3

[Climate-Related Development Finance to Agrifood Systems](#)

The importance of agrifood to global solutions is underscored by the fact that agrifood systems employ about 1.23 billion people globally, and nearly half the world's population live in households that are dependent on the agrifood system.

A key issue in bringing climate solutions to bear is financing, which has been on a downward trend. The report addresses the vital need for targeted financing (aimed mainly at developing countries) and actors (including the private sector) who have contributed to agrifood activities in the past to continue to do so.

Key points presented in this report include:

- Adverse climate change has led to growing global hunger which afflicts about 783 million people worldwide. The need to ensure food security for all lends a sense of urgency to an already critical need to address climate change worldwide.
- In 2021, contributions from all sources to support agrifood system climate action declined by 12% compared to the previous year, continuing a decade-long trend.
- The Paris Agreement underscored the significance of climate finance to support developing countries in their effort to mitigate and adapt to climate change. Relevant technology transfer from developed to developing countries was also cited as a way the global community can catalyze change in developing regions.
- A key conclusion of the report: increasing financial contributions toward agrifood systems can enhance actions that mitigate negative impacts on climate change, help build resilience in the



system, and ensure food security for a growing global population. Few things are more important to the long-term health of the planet and its people.

Overall implications of the three FAO reports for the dairy sector

Collectively, these reports should not be seen as negative for the livestock sector overall. Virtually no information is presented that pits the livestock sector against plant-based foods or other alternatives, and while data is presented indicating that livestock agrifoods produce about 12% of all manmade GHGs (with cattle producing about 60% of these emissions), this is lower than the 14.5% level that FAO calculated in 2013. Report #1 highlights the “vital role of livestock in providing essential nutrition and livelihoods,” and...employment for almost one-half of the global population.

The Roadmap report (doc #2) points out the importance of livestock in the attainment of several Sustainable Development Goals, including SDG1 (No Poverty), SDG2 (Zero Hunger), SDG8 (Decent Work and Economic Growth), SDG10 (Reduced Inequalities), SDG12 (Responsible Consumption and Production), SDG13 (Climate Action) and SDG15 (Life on Land). It discusses the crucial role of livestock in supplying high-quality protein and key micronutrients and its vital role in human development and health.

Collectively, these reports take some of the wind out of the sails of those who argue that changing to a predominantly plant-based diet would have tremendous implications for the environment, indicating that a change in human consumption away from animal-sourced foods might produce a 4% decline in GHG emissions, while a change in animal feed and feeding practices could produce upwards of a 20% decline in emissions.

Embracing practices and technologies that can reduce food loss and waste, improve productivity, and reduce methane production are discussed several times in the reports. Improved animal genetics, animal health, and feed practices are cited as key ways to achieve these goals. FAO suggests that implementing these solutions could cut overall livestock emissions ~70% in 2050 from current levels, while still meeting future demand – effectively refuting the claim that livestock agriculture is incompatible with a sustainable, low-carbon world.

In that regard the dairy sector has been ahead of the curve, indicating as part of its Pathways to Dairy Net Zero initiative the need to pursue practices and technologies that can improve production via better breeding and animal husbandry practices, and feed technologies that might mitigate enteric methane production. The dairy sector’s views are very compatible with those of FAO on these issues.

These reports suggest that FAO is looking more favorably on the private sector as a partner and the dairy sector in particular seems well-positioned to be a leader in this effort, having anticipated and identified in advance many of the practices and initiatives that FAO is now promulgating.

This Perspectives Series article was adapted from a larger GDP report developed immediately after COP 28. If you’d like a copy of the more detailed report or have questions regarding the COP28 Summit and its implications for the dairy industry, please feel free to reach out to us at info@globaldairyplatform.com.