GLOBAL DAIRY PLATFORM

Perspective Paper

The Global Food System: From Trade-Off to Transformation

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KEY TAKEAWAYS:

- The global food system faces the interconnected challenges of ensuring human and animal health, safeguarding the environment, and contributing to socioeconomic wellbeing while remaining resilient against shocks and stresses related to climate change and geopolitical instability.
- What were once considered competing priorities - nutrition, the environment, and social impact – must now be viewed as complementary complexities that require integrated solutions.
- Through collective action across the value chain, the dairy sector can set the global standard for responsible, systems-based transformation.

The global food system stands at the crossroads of health, the environment, and socio-economic well-being, emphasizing the interdependence and delicate balance among all domains of sustainability. This year, the launch of the EAT-*Lancet* Commission on healthy, sustainable, and just food systems[1] at the Stockholm Food Forum served as a pivotal moment for food system transformation, bringing stakeholders from industry, academia, government, healthcare, finance and trade together with farmers and fishers and indigenous peoples to shape concrete steps to ensure a healthy, just and sustainable food system for all. Through its strategic collaboration with the EAT Foundation, Global Dairy Platform (GDP) was able to showcase the dairy sector's commitment and progress in contributing to healthy and sustainable diets and food systems, which it does by providing nutrient-rich foods that promote human health, produced by farmers who are dedicated to their animals and the stewardship of the land, while contributing to the vibrancy of communities around the world.

The discussions held at the Stockholm Food Forum including the Global Dairy Platform (GDP) official side event, *People, Planet, and Prosperity: Dairy's Challenges and Solutions for Contributing to a Sustainable Food System,* participation in the Communities for Action, and presence on the main stage were good reminders that the issues that were once considered competing priorities – such as ensuring food and nutrition security for all and protecting the environment – must be considered together as complementary complexities for which integrated solutions are necessary to ensure the health of people and the planet.

Dairy Delivers for People, the Planet, and Prosperity

GDP hosted an official side event at the Stockholm Food Forum titled *People, Planet, and Prosperity: Dairy's Challenges and Solutions for Contributing to a Sustainable Food System* in which the role of dairy in nutritional security, environmental stewardship, and livelihoods across the value chain were explored. Speakers emphasized the importance of culturally relevant, regionally appropriate diets that can be optimized to support health and sustainability goals.

Dr. Mahya Tavan from the Sustainable Nutrition Initiative® at the Riddet Institute illustrated this point through her introduction of the iOTA model®, a tool developed to account for the multidimensionality of sustainable diets. The model integrates various data on baseline dietary patterns, environmental impact, and food prices to generate country, age, and gender-specific diets that are nutritionally adequate within defined cost, acceptability, and environmental parameters. In New Zealand, for example, achieving nutrient adequacy alone was demonstrated to reduce greenhouse gas emissions by about 30% and cost by about 26%.[2] Whereas further optimization may, in theory, further reduce emissions and costs, it encroaches on dietary diversity and deviates so far from baseline diets that consumer acceptability becomes a barrier to implementation.[2] These findings emphasize the importance of using integrated data-driven solutions in considering holistic approaches to sustainable diet optimization.

When considering the contribution of dairy to sustainable diets and food systems, Dr. Stella Nordhagen from the Global Alliance for Improved Nutrition (GAIN) highlighted the role of dairy in nutrition, the environment, culture, and socio-economics. In 2024, 1 in 4 young children globally experienced stunted growth,[3] with 1.6 billion preschool aged children and women of reproductive age deficient in one or more micronutrients.[4] The burden of malnutrition lies heavier in low- and middle-income countries (LMIC), but micronutrient deficiency remains a global issue, with no country immune to it. Nutrient-dense foods such as dairy are essential for adequate nourishment across all life stages, bridging critical nutrient gaps particularly during periods of rapid growth and development, with a food that is familiar and traditional for many around the world.

In fact, research across 49 LMICs found children who consumed animal-source foods had lower rates of stunting with the greatest reduction observed among those who consumed dairy.[5] Although animal-source foods generally have higher emissions, when adjusted for nutritional value, dairy's environmental footprint is comparable to certain plant-based foods, demonstrating that the efficiency by which dairy foods can deliver vital nutrients in small nutrient-dense packages is good for people and the planet.[6]

Dairy's contribution to global food systems goes well beyond the plate, also playing a vital role in socio-economic development. Globally, an estimated 1 billion people depend on the dairy sector for livelihoods, including more than 110 million households, many in LMICs.[7] Dr. Ugo Pica-Ciamarra, Livestock Economist at the Food and Agriculture Organization (FAO), highlighted how dairy development influences both food and nutrition security and economic wellbeing. Drawing on cross-country analysis presented in the Global Agenda for Sustainable Livestock report, *Dairy and Socio-Economic Development: What Evidence Does the Data Hold?*, Dr. Pica-Ciamarra showed that as dairy systems intensify, important social and economic shifts can occur. Using milk yield as a proxy for sector productivity, FAO data from more than 180 countries reveal that as yields rise, employment shifts from farming to processing and service roles, incomes improve for remaining producers, government tax bases expand, and consumers gain better access to dairy products.[7]

With estimations that food systems contribute up to 30% of global greenhouse gas emissions, with livestock accounting for roughly 40% of this total,[8] improving the efficiency of dairy production in LMICs – where higher yields can enhance affordability and accessibility while lowering emissions per unit of milk – is an example of how optimizing dairy production can support food systems transformation that meets health, environmental goals and social goals.

Collective Action Drives the Future of Food

Food systems informed by holistic, evidence-based approaches can deliver solutions that are not just sustainable in theory, but realistic, equitable, and nourishing for both people and the planet. Dr. Namukolo Covic, Director General's Representative to Ethiopia for the International Livestock Research Institute (ILRI) and EAT-*Lancet* Commissioner, noted during her participation in the GDP side event that the Planetary Health Diet proposed by the EAT-*Lancet* Commission serves as a global reference point for aligning food systems with health and environmental goals. She emphasized the importance of countries approaching this target with their own nutritional and economic realities, indicating that production must be both climate-smart and practical.

Building on this point, fifth-generation dairy farmer Gina Gutiérrez, from Mexico, emphasized that real progress on sustainability depends on practical solutions that support productivity, animal welfare, and economic viability within farming communities. Achieving this balance requires shared responsibility across the value chain to avoid trade-offs and drive transformation. Driving transformational change in the dairy sector and advancing resilient food systems requires global collaboration, with shared responsibility across the "hidden middle," including processors, distributors, and policymakers. That connection from farm to fork can connect science with practice to amplify local voices and ensure solutions are culturally grounded, regionally tailored, and sustainable.

Farmers are at the Center of Progress

Farmers are central to the dairy sector's leadership in building sustainable and resilient food systems. Their practical experience connects global ambitions with daily realities and ensures that solutions are feasible and profitable. In collaboration with GDP staff, dairy farmers from Mexico, Sweden, the US, Pakistan, India, and New Zealand brought this perspective to the global stage in events leading up to and at the Stockholm Food Forum. They highlighted how innovation on farms, responsible resource management, and commitment to animal care contribute to both climate and nutrition goals.

Elevating farmer perspectives in global forums helps connect science, policy, and on-farm practice. When producers are part of the conversation, solutions become more practical, equitable, and achievable, strengthening the sector's collective ability to nourish people and protect the planet.

DAIRY LEADERSHIP: A CALL TO ACTION

- Engage diverse voices in global science and policy dialogues to ensure dairy's contributions to nutrition, the environment, and livelihoods are fully recognized.
- Foster collaboration across the value chain to turn evidence into action and deliver practical solutions.
- Bring farmers to the table to share practical insights before negotiating solutions for food system transformation.

For more information on the Global Dairy Platform's Perspective Papers or our Quarterly Webinar Series, please reach out to Dr. Beth Bradley at Beth.Bradley@GlobalDairyPlatform.com

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