



PERSPECTIVE

# Dairy's Need to Engage in the Sustainable Food System Debate

A projected world population of 9.5 billion by 2050 dictates that future food-related policies must support a sustainable food system. An urgent need to define recommendations and actions must be balanced with the rush to form policy without sufficient research. The dairy sector has an historic opportunity to become more involved in the world nutritional agenda and to work with the global community to shape the definition of a sustainable food system.

**Macro Outlook:**

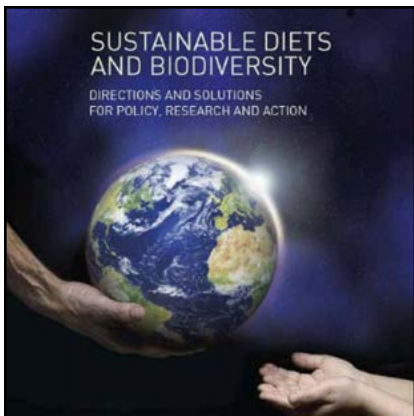
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## The Risk of Food Policy Based on Assumptions

Providing nutritional security, improving sustainability and reducing the risks of diseases related to poor quality diets will be the defining issues of the 21st century.



"Sustainable Diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources."<sup>2</sup>

**FAO and Biodiversity  
International 2012**

In the coming decades, a growing and increasingly affluent global population will demand a greater quantity, variety and nutritional value of food than the world has ever produced before.<sup>1</sup> Non-governmental organizations and world bodies are recognizing the importance of agricultural biodiversity in defining a sustainable food system and diets. The Food and Agriculture Organization (FAO) indicates the need for a holistic approach in its sustainable diets definition.<sup>2</sup> Likewise, the Chicago Council on Global Affairs notes in their report, *Bringing Agriculture to the Table: How Agriculture and Food Can Play a Role in Preventing Chronic Disease*, that "a key feature of a healthy diet is dietary diversity – consuming a variety of foods across and within food groups to improve the intake of essential nutrients."

While such definitions are an encouraging start, the fact is that there is little evidence-based knowledge on sustainable food systems and diets to build recommendations and policy upon. This creates a potential scenario where, in the rush to promote specific recommendations, incomplete science or poorly constructed research is used. History has shown that conclusions drawn from such research can create unintended consequences for public health and sustainability.

For instance, much of the low-fat, anti-saturated fat belief initiated from research by pathologist Dr. Ancel Keys, who constructed his hypothesis after studying the diets and heart disease in countries across the globe. Half a century later, his research turned out to be spurious. Moreover, the low-fat direction and policies that ensued led to a rise in

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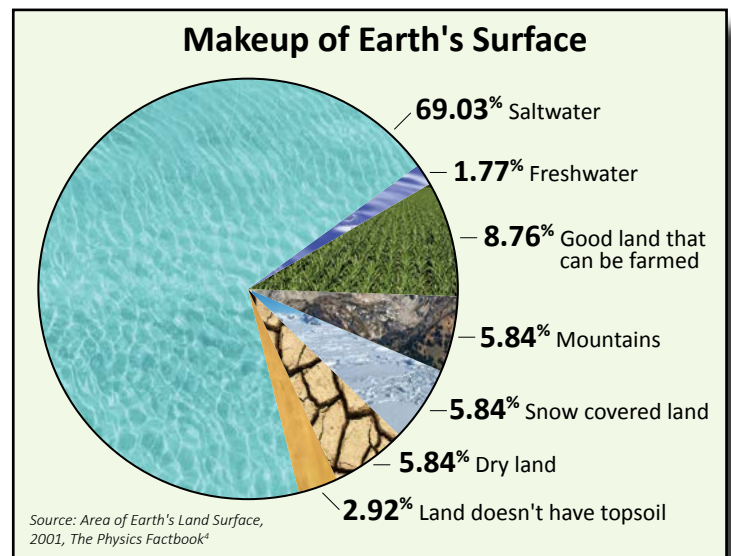
***"We must resist the urge to focus on one approach as holding the answer to the challenges sustainably feeding a growing planet. As José Graziano da Silva, Director General of the Food and Agriculture Organization, recently stated 'We need to explore these alternatives using an inclusive approach based on science and evidences, not on ideologies.'"<sup>3</sup>***

***– Food Security Is National Security,  
National Geographic, 2014***

refined carbohydrates and added sugar consumption, thereby contributing to metabolic syndrome characterized by a rise in triglycerides and a lowering of HDL, or good cholesterol.

Similarly, narrow views such as promoting only a plant-based food system and diet fail to recognize the interdependency of the food ecosystem. Impacts such as the amount of a plant-based commodity needed to be grown to deliver nutrition levels similar to those provided by animal agriculture and mixed diets are often ignored. Also usually overlooked is that food production on land that cannot produce crops is a critical part of a food system, as only 8.76 percent of the earth's surface area is suitable for farming<sup>4</sup> and the area of grazing land is more than double that of cropping land.<sup>5</sup>

Insufficient research that takes a less biodiverse, holistic view of food systems risks making assumptions that prove to be either overstated, oversimplified or wrong. A case in point is a study that suggested replacing 25% to 50% of animal-derived foods with plant-based would achieve certain environment gains while also lowering health risks.<sup>5</sup> The health benefit, however, was derived from the premise of a cardiovascular mortality decline due to a 40% reduction in the intake of saturated fat. Such a claim is at best questionable as it is based on assumptions and inaccurate, outdated saturated fat research.





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## Building a Base of Research: A Critical Step

In order to avoid repeating the mistakes of the past, it is crucial that the knowledge base of sustainable food systems is built on rigorous, evidence-based research.

In the years to come, food policy will need to change to meet the related challenges of rising demand, accessibility and affordability, as well as improved nutrition and health.<sup>7</sup> There is currently little agreement internationally on practical ways to implement the concept of sustainable diets.<sup>8</sup> With the knowledge base of sustainable food systems in its very early stages, now is the time to encourage a process that ensures policy decisions are based on well-designed, evidence-based research.

***“Better measurements and indicators must be developed to assess the impact of the various determinants on the sustainability of a diet and the tradeoffs associated with any recommendations aimed at increasing the sustainability of our food system.”***

***Understanding Sustainable Diets:  
A Descriptive Analysis of the Determinants and Processes That Influence Diets  
and Their Impact on Health, Food Security, and Environmental Sustainability<sup>9</sup>***

The interdependency of the food ecosystem dictates that when factors are changed in one category of the food system, those changes will directly affect other parts of the food system and thus impact the overall "sustainability" of the diet.<sup>9</sup> This is exhibited in a study by Rosegrant which hypothesized that “reduced meat consumption in developed countries would release cereals from livestock feed to food for poorer populations.” Using global food projection models, when meat intake was cut by 50% and replaced by mostly wheat products in developed nations, higher demand led to higher wheat prices, adversely affecting grain available to poor populations that rely on wheat.<sup>10</sup>

**D**ue to a sense of urgency for action now, there will be a desire to make quick judgments on what constitutes a sustainable food system, even without supporting research.

There is a pressing need to make better use of the food system for better nutrition.<sup>11</sup> FAO data suggests that the world will fall short of achieving the first Millennium Development Goal of halving the prevalence of under-nutrition by 2015.<sup>12</sup> Current estimates are that only half of the world's population consumes appropriate quantities of calories and nutrients, while billions consume too few or too many.<sup>13</sup> Thus, translating recommendations into action and/or policy is even more urgent.

A need for policy and process must be balanced with the impulse to forge ahead without having all the facts. There are already many well-established ways of improving both the sustainability of agriculture and its capacity to deliver safe, nutritious products for a healthy diet.<sup>14</sup> A tremendous opportunity to advance society's well-being will be missed, however, if objectives are limited to simply producing more food sustainably: they must also feed the world nutritiously.<sup>7</sup>

To help ensure a balanced and considered process, three key actions are needed:

1. Compile the research available that reflects all elements of the full value chain of a sustainable food system;
2. Bring diverse leaders together to ensure understanding of the complexity of global food systems and the need for balance between nutrition, sustainability and affordability;
3. Encourage scientific debate on gaps in research, tools and methodology.

### The Components of a Strong Research Design

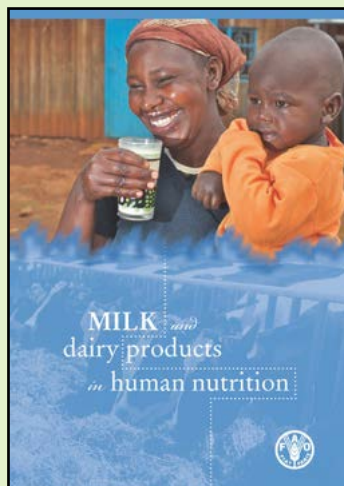
As interdisciplinary research and better tools to evaluate sustainable food systems are created, there are elements that should be addressed in collaborative forums.

These elements include:

- Identifying and conducting research that can assess a holistic ecosystem
- Developing new research tools that can measure multiple aspects of sustainable diets, such as the impacts on environment and health
- Progressing more comprehensive measures of environmental impacts, taking into account resources that are not suitable for crops
- Accounting for the practicality of implementing large scale changes in food systems
- Estimating realistic achievements in population behavior changes related to food choices

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## An Opportunity for Dairy to Shape the Debate



### Dairy: A Growing Stature in Sustainable Nutrition

A strong example of the expanding recognition that dairy has a significant role in a sustainable food system around the world is the 2013 FAO publication *Milk and Dairy Products in Human Nutrition*. The book notes that not only are milk and dairy products a vital source of nutrition, "but they also present livelihoods opportunities for farmers, processors, shopkeepers and other stakeholders in the dairy value chain."<sup>15</sup>

The publication also states the need for consumers, industry and governments to have "up-to-date information on how milk and dairy products can contribute to human nutrition and how dairying and dairy-industry development can best contribute to increasing food security and alleviating poverty."<sup>14</sup>

**D**airy has valuable input to a resilient, sustainable food system including nutrition assets that are critical for ensuring long-term health of a growing global population.

Given its nutrient-rich package, dairy has the ability to provide the world's population not just basic nutrition, but better nutrition. For developed and developing countries, dairy has the potential to reinvigorate rural economies, providing sustainable livelihoods for smallholder farmers and a resilient source of economic growth.

The sector faces an historic opportunity to become more involved in the global nutritional agenda and to work with the global community to shape the definition of a sustainable food system. There is already growing recognition that dairy can make a significant contribution towards meeting the challenges of nutritional security, sustainability and reduction in diseases related to poor quality diet.<sup>15</sup> Recognition, however, does not guarantee a seat at the table when policy is made.

To lead in this new era, dairy must engage in a whole-sector strategy to build its presence with nutrition policy influencers and regulators. It must be viewed as a resource with science-backed data and knowledge on the issues. The call for such an approach has gone out to the sector; putting it into effect is now the imperative.

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**GLOBAL DAIRY PLATFORM** leads the development of a collaborative, unified approach on common sector issues and the nurturing of innovative research so that consumers value milk and dairy products as naturally nutritious, enjoyable and an essential part of a healthy diet. Our membership of CEOs, executives and researchers from corporations, communication and scientific bodies work in partnership to align and support the dairy industry in the promotion of sustainable dairy nutrition.

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**Global Dairy Platform**

10255 West Higgins Road, Suite 820

Rosemont, Illinois 60018-5616

United States

Phone: +1 847 627 3388

Fax: +1 847 627 3380

[info@globaldairyplatform.com](mailto:info@globaldairyplatform.com)

[www.globaldairyplatform.com](http://www.globaldairyplatform.com)



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