



# Role of Dairy in Sustainable Nutrition

Good health depends on good nutrition. Good nutrition, in turn, depends on agriculture to provide the foods for a balanced diet that meets our needs for energy and essential nutrients like protein, vitamins and minerals. To achieve this goal, stakeholders from agriculture, industry, academia and government will have to collaborate to identify practical, sustainable interventions to safeguard the health and well-being of our global population – now and in the future.

## The Issue

We are witness to significant shifts in the global food and nutrition environment, some being very positive but others posing deep concerns.

- Hunger and malnutrition continue to be issues worldwide. 870 million people chronically undernourished. Close to 1 billion people unable to meet their minimum energy requirements 2 billion suffer from micronutrient deficiencies. population segments at greatest risk include the poor, young children, pregnant and lactating women, the sick and the elderly.
- According to the World Health Organization (WHO), obesity rates have doubled since 1980
- According to WHO, 63% of deaths worldwide are attributable to chronic disease each year.
- Estimates from the Food and Agriculture Organization (FAO) project population growth to rise from approximately 7 billion in 2011 to 9.5 billion in 2050. Increasing numbers of people = increased demand for meat and dairy products. Global dairy demand alone is projected to reach 900 million ton equivalents of fresh milk (excluding butter). Innovative sustainable solutions will be required.
- A need for environmentally sustainable agricultural and food manufacturing practices is critical.

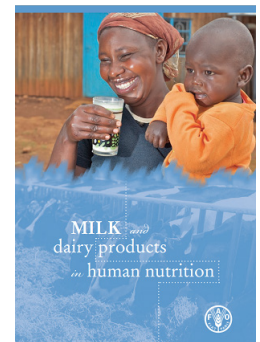
## The Facts

According to a 2013 FAO report, *Milk and Dairy Products in Human Nutrition*, milk and dairy products can be important in diversifying the diet. They are nutrient-dense and provide high quality protein and micronutrients in an easily absorbed form that can benefit both nutritionally vulnerable people as well as healthy people when consumed in appropriate quantities and as part of healthy eating patterns.

Milk and dairy products can be important sources of calcium, magnesium, selenium, riboflavin, vitamin B12 and pantothenic acid. In short, the growing consumption of dairy can bring important nutritional benefits to large segments of the population in developing and developed countries.

Most countries recommend at least one serving of milk or milk products daily; some, up to four servings each day. Unfortunately, consumption data confirms that intakes of dairy foods fall short of recommendations.

Dairy products are associated with maintaining a healthy weight and good bone health. Evidence also continues to mount for associations with reduced risk of several diseases and conditions, including osteoporosis, hypertension, colon cancer, metabolic syndrome and type 2 diabetes.



*Milk and Dairy Products in Human Nutrition*, FAO, 2013

In many cases the precise mechanism of these protective effects are not well understood, indicating a need for further research.

Dairy, as is true with most livestock products, has been challenged as conferring too great of a carbon footprint and/or overall environmental toll. All foods have an effect on environmental sustainability, including land usage, water resource preservation, biodiversity, erosion and air pollution. However, for generations the dairy industry has operated in a manner to continually reduce its impact on natural resources while producing and delivering fresh, wholesome foods. In fact, globally the dairy sector, which includes milk production, processing and transportation, accounts for around 3 percent of all GHG emissions.

To find out more about all the ways the dairy industry is working to protect the environment visit [www.dairysustainabilityframework.org](http://www.dairysustainabilityframework.org)

Dairy cows are extremely efficient at converting human-inedible plant material into high-quality milk and are net contributors to the human food supply. Land that is too poor or too erodible for crops can be productive with grazing ruminants. Still, misperceptions that dairy farming is an inefficient use of natural resources are pervasive.

### *Challenges and Gaps*

Despite occasional calls by food activist groups to adopt solely plant-based diets in the name of health and sustainability, only a small number of studies globally have begun to examine impacts of dietary patterns on use of natural resources and environmental impacts. Standardized data on environmental impacts of foods, evaluated comprehensively, is needed to assess impacts of different dietary patterns. At present, it is not possible to make informed decisions about optimal eating patterns from an integrated view, that is, nutritional adequacy and environmental sustainability.

Tackling food waste (edible materials intended for human consumption) is considered to be a quick win by many. It has been estimated by FAO that globally as much as 30% of food is wasted either before it reaches the consumer (on farm, during transport or processing) or after it has been purchased.

Perhaps the greatest impediment to increasing consumption of dairy products in low income populations is their price. Like other animal-source foods, dairy products tend to be an expensive source of energy compared with cereal staples.

### *Conclusion and Recommendations*

As the world population continues to increase, it will become even more critical to provide nutrient-rich foods for health in a way that addresses the health of individuals, communities and the planet. “Better nutrition” must address both quality of nutrients, which vary according to their source (animal vs. plant), and quantity of nutrients sourced through a wide variety of foods. The production and distribution of those foods must be accomplished while reducing environmental impact and increasing access and affordability.

Applying the multiple “filters” noted above, milk and milk products should be endorsed as an integral component of healthy eating patterns. These foods are:

- Nutritionally beneficial
- Environmentally sustainable
- Economically viable
- Culturally acceptable

Dairy sector development programs highlight the pivotal role of milk and dairy products in the diets of people worldwide. Benefits have been varied, but include high nutritional quality of a wide range of products; economic growth through jobs and income; environmental stewardship through research and education efforts that promote sustainable practices.

*References and further information on the role of dairy in sustainable nutrition is available at [www.idfdairynutrition.org](http://www.idfdairynutrition.org)*

*Main source of information: ‘Milk and Dairy Products in Human Nutrition’, FAO, 2013*