

The Nutritious Food Systems Initiative

A joint effort between the Agriculture Development and Nutrition teams

Over the past five years, there has been more serious attention paid to the need to take multi-sectoral action in order to reduce undernutrition. There is increasing evidence that investments in the agricultural sector can have a positive impact on nutrition outcomes when they are designed from the outset to achieve these objectives.

Reviews of the evidence can be briefly summarized as follows:

1. There are three main household-level pathways between agriculture and nutrition: consumption of own production; income from agriculture; and women's empowerment.
2. These pathways are well-documented and evidence-based (Arimond et al., 2011; Gillespie & Kadiyala, 2012; Ruel & Alderman, 2013; World Bank 2007; Pinstrup-Andersen, 2012).
3. Programs to improve household agricultural production have direct and important linkages with household dietary patterns and the nutrition of individual members. The magnitude of the impact varies depending on commodity, context, location, and program intensity (Carletto et al. 2015).
4. Production, ownership, and consumption of animal-source foods, in particular, are positively linked to improved nutritional status (Hoddinott et al. 2014; Azzarri et al. 2013).
5. Income growth on its own is necessary but will not automatically translate into nutrition improvements (Headey 2011).
6. Women are the nexus between agriculture and nutrition, and are the keys for improving their and their children's nutrition: when women are better nourished, they enjoy better health and are more productive child caregivers and laborers (Quisumbing, 2003; Ruel & Alderman, 2013).

Our Agriculture and Nutrition teams jointly aspire to ensuring equitable access to safe, affordable, and nutritious diets year-round. This shared goal is the objective of the new Nutritious Food Systems Initiative, which was approved as a joint Agriculture and Nutrition strategy initiative in the context of the Nutrition Strategy Refresh in June, 2015. For more information on the new Nutrition Strategy, click [here](#).

The Nutritious Food Systems Initiative will focus on addressing key constraints that exist in the nexus between agriculture and nutrition. We will invest in known solutions to these constraints, and in finding more effective solutions. Our focus is both global and national, with a particular focus on Bangladesh, Burkina Faso, Ethiopia, India (Uttar Pradesh, Bihar, and Odisha), Nigeria, and Tanzania. The components of the initiative include:

Improving data, evidence, and policy. While evidence does exist of the impact of agricultural programs and policies on nutrition, there are still major gaps to be addressed. Research questions include: how can agricultural interventions be designed to improve nutritional outcomes for individuals in farm families and communities as a whole? What are the best delivery mechanisms through which agriculture can affect nutrition? What agricultural interventions improve nutrition and health in the most cost-effective way? The foundation is partnering with the UK Department for International Development (DFID) to fill some of the evidence gaps by supporting a range of impact evaluations of agricultural projects which aim to have a nutritional impact.



One of the challenges in the area of agriculture-nutrition has been shared metrics to jointly assess progress. Many partners have made progress towards better indicators for women's dietary diversity, for example. But there is a need to advance methods for improved data collection, use and analysis on individual food consumption, and we are working with partners like Tufts University to improve these methods.

There is a need to translate evidence into action at a country level, both into policies and country programs. One of our partners, [the Global Panel for Agriculture and Food Systems for Nutrition](#), is committed to tackling food

systems and nutrition issues through a high-level panel of experts that makes recommendations on effective national food and agricultural policies to improve nutrition. In 2014, we launched the Improving Nutrition Outcomes through Optimized Agriculture Investments, or [ATONU](#), program based in Africa. This effort, led by the Food, Agriculture, and Natural Resources Policy Analysis Network (FANRPAN), will provide technical assistance to agriculture programs to integrate tailored nutrition interventions and achieve better nutrition outcomes. And in 2015, we launched an effort led by Cornell University in coordination with Tata Trust to develop a center of excellence for nutrition-sensitive agriculture in India called Technical Assistance and Research for Indian Nutrition and Agriculture (TARINA).

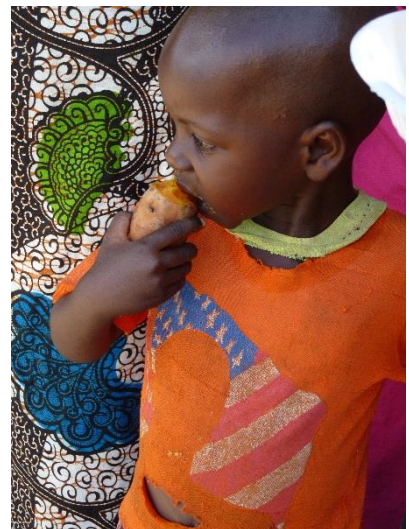
Increasing women’s empowerment in agriculture. One of the key pathways from agriculture to nutrition is through women’s empowerment. Women’s empowerment is also a cornerstone of the foundation’s Agriculture Strategy, and a focus of the foundation as a whole. Our food systems investments aim to recognize issues related to intra-household food allocation, women’s ability to make decisions about household resources, women’s workload, and women’s agency from the outset. One of our flagship programs that incorporates women’s empowerment, nutrition, and poultry productivity objectives is in Burkina Faso. Run by Agribusiness Systems International, the [SE LEVER](#) program aims to make progress in all three of these areas through a comprehensive, multi-sectoral approach that puts women at the center.



Increasing supply of nutrient-rich foods. Increasing the production of nutrient-rich foods, like those from animal sources and legumes, is a fundamental component of the Initiative. The foundation’s Agriculture Strategy, which can be accessed [here](#), focuses on increasing the production and productivity of many of these foods. We are also investing in two types of fortification to increase the availability of micronutrient-rich staples: biofortification, which increases the micronutrient content of food crops like sweet potatoes and beans, and fortification of staple foods and condiments, which increases the micronutrient content of processed foods and condiments like wheat flour, oil and salt. For more information on our partners in these efforts, please refer to [HarvestPlus](#) for biofortification and the [Global Alliance for Improved Nutrition](#) for staple food and condiment fortification.

Reducing seasonal fluctuations. Year after year, many communities suffer from volatile food prices, and seasonal fluctuations in the accessibility of nutrient-rich foods. As a result, undernutrition tends to fluctuate by seasons. Interventions that focus on improved storage, food preservation, or better post-harvest processing can smooth consumption patterns throughout the year.

Increasing affordability of nutrient-rich foods. Often, the most nutritious foods are the most expensive. In our focus countries, families spend 60% or more of their income on food (in the United States, we spend 7%). The relationship between food prices and nutrition—particularly in poor households and in those engaged in agriculture—is complex. Increasing productivity is not enough to make nutritious foods accessible and affordable, particularly for the poor. Our strategies to increase affordability will complement efforts to increase productivity by strengthening the distribution chain, increasing income for smallholders, introducing new low-cost high-quality food products, increasing physical access to nutrient-rich diets, partnering with governments on effective policies, and more.



Increasing demand. In many communities, basic knowledge of nutrition—why it is important, and what foods contain good nutrition, for example—is lacking. But we have much to build on from the health and behavioral economics fields. One of our long-standing nutrition partners, [Alive and Thrive](#), has been successful in improving



nutrition-related behaviors in countries like Bangladesh, Vietnam, and Ethiopia. In collaboration with DFID, we are partnering with the University of South Carolina on the [Drivers of Food Choice](#) grant program. This program seeks to provide a deeper understanding of the drivers of food choice among the poor in developing countries, and will advance our global knowledge on why individuals eat the foods they do.

Improving food safety. A growing concern in many regions of the world is the lack of effective systems to ensure that the food supply is safe for consumers. The foundation has invested in reducing aflatoxin contamination of maize and groundnuts, a challenge that is highly prevalent in the countries in which we work and has been associated with child stunting and other adverse health outcomes. We are partnering with the African Union, other donors, research organizations, and private sector partners through the [Partnership for Aflatoxin Control in Africa](#). We will also explore the role of food-borne pathogens that threaten the safety of perishable foods such as milk and meat. Building stronger food safety systems as a whole that can tackle today's problems and prevent future outbreaks is a high priority.