



A farmer works in the field in Ngiresi, Tanzania. ©AP Images/Karel Prinsloo.

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[USAID.gov](http://USAID.gov) or [FeedtheFuture.gov](http://FeedtheFuture.gov).

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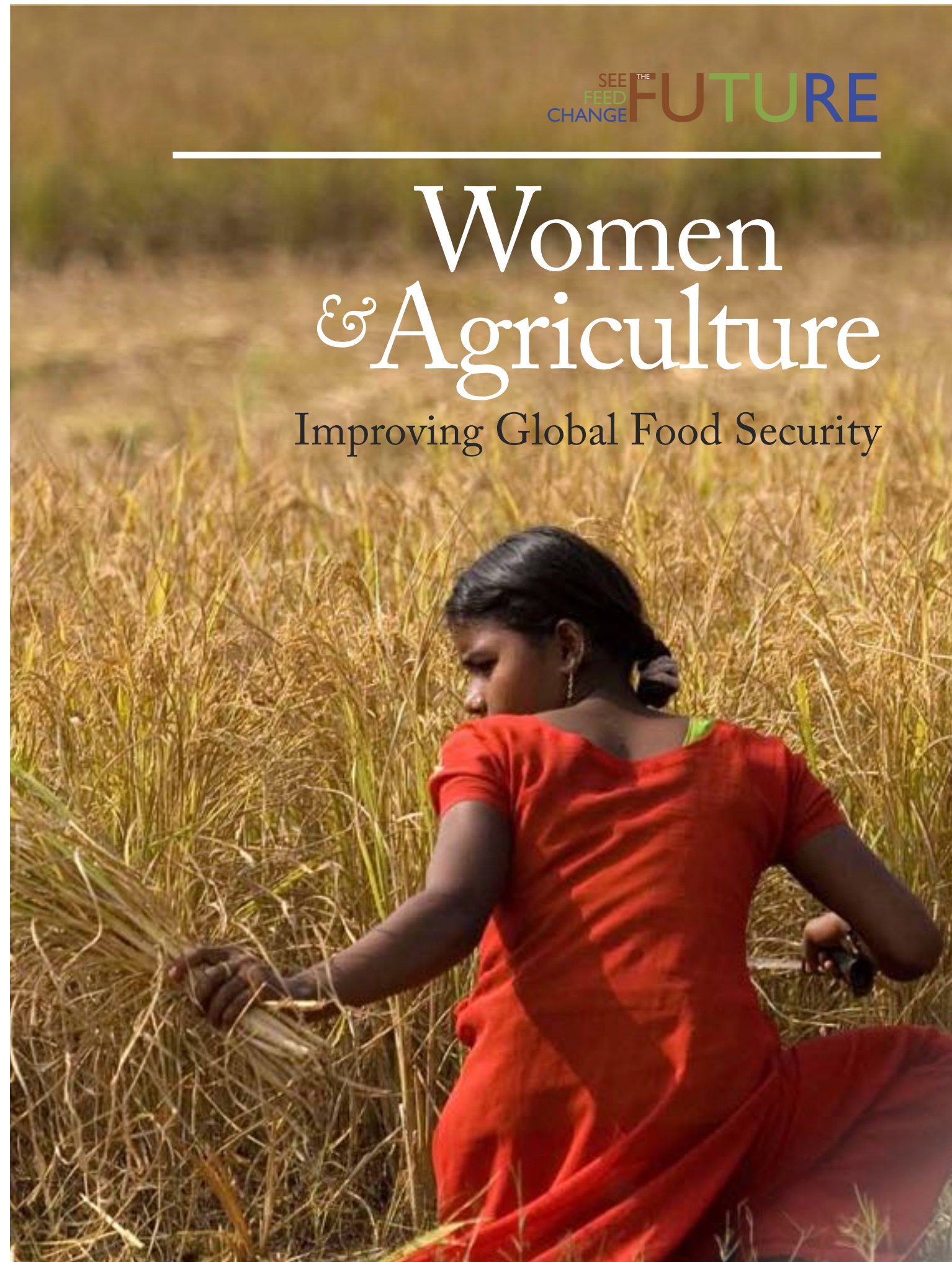
A farmer cuts paddy crop in Panwara village. ©AP Images/Rajesh Kumar Singh.

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# Women & Agriculture

Improving Global Food Security







**This report discusses the importance of investing in women and agriculture and highlights ways that Feed the Future, the U.S. global hunger and food security initiative,**

builds on best practices and incorporates a rigorous monitoring and evaluation system. To better enable women agricultural producers to reach their full potential, Feed the Future promotes women's leadership in agriculture, fosters policy changes that increase women's land ownership and strengthens their access to financial services, encourages female farmers to adopt new agricultural technology aimed at increasing productivity and reducing unpaid work, and invests in improved nutrition outcomes.

*opposite*

Women improve their income by harvesting lemongrass on cleared portions of forest. The herb is delivered to a factory and processed into essential oil used in perfume and cosmetics. ©AP Images/Ben Barber.



Women play a vital role in advancing agricultural development and food security.<sup>1</sup> They participate in many aspects of rural life – in paid employment, trade and marketing, as well as many unpaid activities, such as tending to crops and animals, collecting water and wood for fuel, and caring for family members. Women also manage household consumption and food preparation. But women face many constraints in the multiple activities they pursue – less land ownership, access to credit, extension and other services, and ability to hire labor.<sup>2</sup> Too often, these constraints as well as women’s current and potential contributions to agricultural production go unrecognized.

Increasing opportunities for women can have a powerful impact on productivity and agriculture-led growth. Women are just as efficient agricultural producers as men and can achieve similar yields when given equal access to resources, including training and services. For example, in Kenya, researchers found that women could increase their crop yields by approximately 20 percent if given the same access to the same resources as men.<sup>3</sup> In Burkina Faso, it has been estimated that overall household production could increase by about six percent by more equitably distributing fertilizer and labor between male and female-farmed plots.<sup>4</sup> The Food and Agriculture Organization of the United Nations (FAO) estimates that if women had the same access to productive resources as men, they could increase yields on their farms by 20–30 percent. This increase could raise total agricultural output in developing countries by 2.5–4 percent and reduce the number of hungry people in the world by 12–17 percent, up to 150 million people.<sup>5</sup>

When women’s productivity and incomes increase, the benefits amplify across families and generations. Women tend to devote a larger fraction of their income to their children’s health and nutrition, laying the foundation for their children’s lifelong cognitive and physical development.<sup>6</sup> In Nepal, for example, the children of women who own land are twice as likely to be adequately nourished than children in households where women work on family land they do not own or children growing up in landless households. Mothers who own land are better able to provide more nutritious food to their children and ensure their health and well-being.<sup>7</sup>

<sup>1</sup> Food and Agriculture Organization of the United Nations. (2011). *The State of Food and Agriculture 2010–11: Women in Agriculture*. Rome: FAO. (Hereafter, FAO, 2011). See also World Bank (2011). World Development Report 2012: Gender Equality and Development. Washington, DC: World Bank. (World Bank, in press). In most countries, gender gaps in agriculture disadvantage women. Therefore, women are the principal focus of this report, although gender (socially constructed roles associated with each sex) is discussed as relevant.

<sup>2</sup> Doss, Cheryl, Caren Grown, & Carmen Diana Deere. (2008). *Gender and Asset Ownership: A Guide to Collecting Individual-Level Data*. (Policy Research Working Paper 4704). Washington, DC: World Bank.

<sup>3</sup> Saito, Katrine, Hailu Mekonnen, & Daphne Spurling. (1994). *Raising the Productivity of Women Farmers in Sub-Saharan Africa* (Discussion Paper 230). Washington, D.C.: World Bank.

<sup>4</sup> Udry, Christopher. (1996). Gender, Agricultural Production, and the Theory of the Household. *Journal of Political Economy*, 104, pp. 1010–1046.

<sup>5</sup> FAO, 2011, *op cit*.

<sup>6</sup> Duflo, Esther. (2003). Grandmothers and Granddaughters: Old Age Pension and Intra-Household Allocation in South Africa. *World Bank Economic Review*, 17, pp. 1–25; Quisumbing, Agnes R., & John A. Maluccio. (2003). Resources at Marriage and Intrahousehold Allocation: Evidence from Bangladesh, Ethiopia, Indonesia, and South Africa. *Oxford Bulletin of Economics and Statistics*, 65, pp. 283–328; Smith, Lisa C., Usha Ramakrishnan, Aida Ndiaye, Lawrence J. Haddad, & Reynaldo Martorell. (2003). *The Importance of Women’s Status for Child Nutrition in Developing Countries* (Research Report No. 131). Washington, D.C.: International Food Policy Research Institute; Thomas, Duncan. (1994). Like Father, Like Son; Like Mother, Like Daughter: Parental Resources and Child Height. *Journal of Human Resources*, 29, pp. 950–988; Kennedy, Eileen, & Pauline Peters. (1992). Household Food Security and Child Nutrition: The Interaction of Income and Gender of Household Head. *World Development*, 20, pp. 1077–1085; Thomas, Duncan. (1990). Intra-Household Resource Allocation: An Inferential Approach. *Journal of Human Resources*, 25, pp. 635–664.

<sup>7</sup> Allendorf, Keera. (2007). Do Women’s Land Rights Promote Empowerment and Child Health in Nepal? *World Development*, 35, pp. 1975–1988.



A farm laborer carries her child as she tends to tobacco crops. ©AP Images/Denis Farrell.



Agriculture is an engine of economic growth and provides the basis for most livelihoods in developing countries.<sup>8</sup> Women are a significant portion of the agricultural labor force, constituting an average of 43 percent in developing countries, with ranges from about 20 percent in Latin America to 50 percent in Eastern Asia and sub-Saharan Africa. Women are the majority of the agricultural labor force in over 30 countries.<sup>9</sup> They are critical to building strong agriculture sectors that can serve as the foundation for long-term food security, poverty reduction, and economic growth.

After years of neglecting agriculture, the international community is refocusing its commitment and investment in the sector. At the G8 Summit in L'Aquila, Italy in 2009, President Obama announced a \$3.5 billion, three-year commitment to renewing U.S. investments in global food security. This commitment is the foundation of Feed the Future, the United States' whole-of-government initiative addressing the root causes of hunger and poverty. Feed the Future programming includes increasing farm household, including women's, access to affordable agricultural technologies and practices, resources, capital and credit, and training. The Initiative also seeks to strengthen the links between agriculture and improved nutrition by diversifying crop production, investing in horticulture, and improving delivery of nutrition services. Feed the Future is committed to working with stakeholders to address the needs of small-scale farmers and harnessing the power of women to drive economic growth.

<sup>8</sup> World Bank. (2007). World Development Report 2008: Agriculture for Development. Washington, DC: World Bank.

<sup>9</sup> FAO, 2011, *op cit*.



# Measuring Feed the Future's Gender Impact and the Women's Empowerment in Agriculture Index

One of the core principles of Feed the Future is accountability through measuring progress toward food security goals. Because of the prominence of gender equality and women's empowerment in Feed the Future strategies, the monitoring and evaluation system aims to comprehensively track how the Initiative has impacted women, men, and the dynamics between them. This effort will employ three targeted and diverse approaches: 1) sex-disaggregation of data; 2) impact evaluations that examine critical questions related to gender equality, gender integration, and women's empowerment; and 3) the development and utilization of the Women's Empowerment in Agriculture Index.

In order to better track returns on investments in women and agriculture, Feed the Future is partnering with the International Food Policy Research Institute and the Oxford Poverty and Human Development Initiative to develop the Women's Empowerment in Agriculture Index. The Index measures change in the following five areas:

- Women's role in household decision-making around agricultural production
- Women's access to productive capital
- Women's income
- Women's leadership roles within the community
- Women's labor time allocations

The Index is an innovative and rigorous tool that will be used to track performance on promoting women's empowerment in the agriculture sector in Feed the Future countries.

*left*

Bangladesh helped to make small scale aquaculture a viable means of income for women and very poor farmers. ©AP Images





Esther Moriba sells fish at her stand in a local market in southern Sudan. She received loans from the Sudan Microfinance Institution (SUMI). In 2003 USAID helped establish SUMI, which offers financial services to small-scale entrepreneurs in southern Sudan, with an emphasis on agriculture, women, returned refugees and internally displaced persons. SUMI performs above international standards and continues to grow. Through borrower groups and salary loans, three branches in southern Sudan disbursed nearly a half million dollars to more than 1,600 clients by February 2005. SUMI's repayment rate is over 98 percent with a portfolio-at-risk rate of less than 6 percent. Moriba is one of SUMI's first clients. With her first loan of \$100, she went to Koboko, Uganda, to buy smoked fish and diversify her stall at the local market. With subsequent loans, she bought a bicycle, allowing her to dispatch someone to buy fish for her. ©AP Images/Laura Lartigue

## Linking Women and Food Security

To better enable female agricultural producers to reach their full potential, Feed the Future promotes women's leadership in agriculture; fosters policy changes that increase women's land ownership and strengthens their access to financial services; encourages female farmers to adopt new agricultural technology aimed at increasing productivity and reducing unpaid work; and invests in improved nutrition outcomes. Feed the Future investments are combined with impact evaluation and empirical research to document how empowering women affects household outcomes and larger-scale agricultural productivity and growth. By employing a robust monitoring, evaluation, and learning agenda, Feed the Future contributes to the evidence base on women and food security while also maximizing the impact of its investments.

Feed the Future builds on best practices and programs from across the U.S. government and the international community to achieve scale in advancing gender equality, women's empowerment and impact.

### Leadership

Feed the Future promotes leadership programs that help women gain ownership and management of small and medium-sized enterprises and producer and trade associations, and helps them to participate in marketing boards and key ministries. Evidence and experience suggest that enhancing the capacity of women to participate in and lead these organizations not only ensures that rural women are represented and have a voice in key decisions, but also results in more widely shared benefits.<sup>10</sup>

### Best practices in leadership

- In partnership with the Consultative Group on International Agricultural Research (CGIAR) and the Bill and Melinda Gates Foundation, Feed the Future supports the African Women in Agricultural Research and Development (AWARD) fellowship program. AWARD offers tailored, two-year fellowships designed to fast-track the careers of African women scientists and professionals delivering agricultural research and development benefits to rural communities, especially women and the poor. The goal of the AWARD project is to help the selected fellows increase their contributions to the fight against hunger and poverty in sub-Saharan Africa. Fellows receive training and are paired with a mentor for the duration of the project. In addition, each fellow selects a younger, more junior woman she would like to mentor, providing leadership and guidance for a new generation of leading women scientists.

<sup>10</sup> FAO, 2011, *op cit.*



- In several countries, Feed the Future supports entrepreneurship development to encourage sector growth by empowering business owners in the marketplace. The US-AID Integrated Initiatives for Economic Growth in Mali program addresses women’s limited access to finance by providing training in financial management and completing loan applications. With expanded access to credit and business development training provided by this pilot program, several hundred women entrepreneurs and women’s cooperatives tripled agricultural production volumes after members learned to keep records of input costs, sales data, profits, and other crucial financial information required by lending institutions.
- The Consortium for Food Security, Agriculture and Nutrition, AIDS, Resiliency and Markets (C-FAARM) program is funded by USAID’s Food for Peace and implemented by Land O’Lakes International. In Zambia, C-FAARM is working with hundreds of beneficiaries, training them in animal husbandry, helping them obtain a dairy animal, and linking them to a Milk Collection Center through a dairy cooperative so they can effectively sell their milk. Before joining the C-FAARM program, many of the women were unable to meet their basic needs because they had no stable source of income. Participants in such programs often report that they are motivated to join by a desire to improve their children’s welfare. In Zambia, women now have increased decision-making authority in their households, and are better able to meet their children’s needs with balanced meals and school supplies.

In 2009, Eunice Mwongera decided to expand Hillside Green Growers and Exporters Company, her family-owned fruit and vegetable business. A graduate of Nairobi University and former finance officer at the Kenyan Ministry of Agriculture, Mwongera applied for the USDA Norman E. Borlaug International Agricultural Science and Technology Fellowship Program. The fellowship program provides U.S.-based agribusiness and collaborative research training to African women. Within a year of completing her fellowship, Mwongera successfully applied many of the business skills and concepts she learned. Not only did she succeed in increasing exports, but she also started her own poultry, rabbit, and fish farming operation. Now, Mwongera makes employee development a priority, provides training to smallholder farmers, and mentors women entrepreneurs. Mwongera has praised the Borlaug Fellowship Program for providing customized training, exposing her to new ideas, and motivating her to diversify her business.

### Policy

Feed the Future promotes policies that help enable women farmers to access and control physical and financial assets so they can become full and equal agricultural producers. In many cases, banks will not lend to women because they lack collateral such as land or other property. And, in many parts of the world, customary and traditional practices often prohibit women from inheriting or being able to buy their own land even if statutory laws allow it. Policies that make it easier for smaller groups with fewer resources to start a cooperative and work for a common purpose, such as Mozambique’s new Cooperative Law, can greatly help women.

### Best practices in policy

- Feed the Future programs work with the private sector and local communities to establish financing mechanisms such as savings incentive programs, revolving loan funds, and producer group financing. Some programs facilitate secure access and land tenure for women. For example, in Senegal, communities are transforming degraded plots into productive land for women (bio-reclamation), thus ensuring them land access.
- In Mali, USAID’s Food for Peace has partnered with Catholic Relief Services to create savings and lending groups. Hundreds of women who are participating in the program have increased their savings. Women members borrow from their savings fund to conduct small income-generating activities such as peanut or millet production. Groups receive training in functional literacy, microenterprise development, management, marketing, health, and nutrition. Both women and men receive training.

### Technology and Innovation

Many agricultural technologies are predominantly designed by men with male farmers in mind. Feed the Future works with local partners such as public extension services and farmer cooperatives to develop and introduce appropriate technologies for women farmers. Many of these technologies reduce the time women spend doing unpaid work. Feed the Future focuses on increasing women’s access to productivity-enhancing inputs, practices, and services for agriculture.

### Best practices in technology and innovation

- In Zambia, USAID supports agricultural value chain projects that directly affect women’s ability to increase crop yields. The Zambia Agricultural Research and Development Program addresses constraints faced by women farmers, offering extension services and training to women’s groups, schools, and community health systems. In 2010, almost half of those who attended USAID-supported rural fairs were women.



A woman carrying firewood on her head wades through the flood waters after the river Sondu Miriu burst its banks following a heavy downpour in Kisumu in the southern part of Nyanza, Kenya.  
©AP Images/Fred Eshiwani.

In Senegal's southern forest zone, USAID supported Boubou Deme, a producers' organization comprised of 22 producers, including 17 women. Before this, Nimna Dayte, president of the producer group, generated meager yields of one ton per hectare of maize due to poor seeding practices and poor seed quality and earned less than \$2,000 per year. In 2010, with support from USAID, Nimna was able to buy quality seeds for the first time and doubled her field size to 4.5 hectares. That year, she harvested 13 tons (2.9 tons per hectare) and almost tripled her income. In 2011 she planned to plant 10 hectares and hopes to increase her income yet again.

- USAID's innovative Dairy Development Project in Ethiopia is creating a more competitive dairy value chain to generate employment and income for smallholder families. One income-generating project is the Edget Berira Milk Processing Group, a micro milk processing business that supports all-female members and received the "Best Performing Income Generating Activity" award during the 2011 World Women's Day celebration, hosted by the Regional Women and Children Affairs Office of Adama City.
- Under Rwanda's Post-Harvest Handling and Storage Project, individual farmers and members of cooperatives receive training in post-harvest management of maize, rice, and bean. Attendees learn handling techniques, cooperative leadership, bookkeeping, and financial management. The project also facilitates greater investment in storage and drying facilities. Women farmers comprise over half of the project's participants and many also go on to become trainers for new members.

### Nutrition

Because women are usually in charge of preparing food for their families, they are important targets for programs that diversify household diets to improve nutrition outcomes. Feed the Future promotes the production and consumption of micronutrient-rich foods, such as orange-fleshed sweet potatoes and orange maize. Additionally, as animal-sourced foods provide essential nutrients necessary for maternal and child health, Feed the Future supports the promotion of fisheries, poultry and fowl production and livestock to achieve positive nutrition and economic benefits to women producers and their families. The U.S. also has a long history of supporting homestead food production, often targeting women, which combines a diverse cropping system and small animal and poultry production with nutrition education.

### Best practices in nutrition

- In Nepal, USAID partners with Helen Keller International and local counterparts under the Action Against Malnutrition through Agriculture (AAMA) project to teach mothers of children under two years improved techniques for homestead production of micronutrient-rich vegetables and poultry together with optimal infant, young child and maternal nutrition practices. AAMA (which also means "mother" in Nepali) is reaching 13,386 households and creating a model for national scale-up. Mothers reached by AAMA are now producing nutritious foods for their families and many have overcome traditional beliefs that eggs are dirty and cause diarrhea in children.





The Ghana Agricultural Development and Value Chain Enhancement (ADVANCE) program is improving Ghana's agricultural sector by increasing competitiveness in domestic, regional and international markets. The program increases income for rural smallholders and small and medium-sized enterprises and is contributing to economic growth and poverty reduction in Ghana. Rebecca Dowokpor has been trading and milling rice for over 30 years, mainly selling milled rice on the open market. With ADVANCE's support, Ms. Dowokpor has developed a dedicated supply base of 300 growers, to whom she provides better quality seed, inputs and technical support. She has also constructed a 600 metric ton warehouse and recently installed new equipment that will ensure her rice can compete in export markets. While Ms. Dowokpor's base of operations is in southern Ghana, she is one of several agribusinesses actively expanding their supply base in the north in order to remain competitive in the market.

- USAID's Food for Peace partners with Mercy Corp in Guatemala to prevent malnutrition in pregnant and lactating mothers and in children under two. The Maternal and Child Community Food Diversification Program (PROCOMIDA) is overseen by the Community Health and Food Commission in Sacanillá, which includes five local women leaders. Since the launch of the program, these women have helped the community achieve milestones such as constructing a warehouse and obtaining items needed for cooking demonstrations.
- Anemia affects 64 percent of pregnant women and 49 percent of non-pregnant women in Uganda. Feed the Future works with the Ugandan Ministry of Health and other partners to strengthen systems for improved delivery of proven maternal anemia interventions. The A2Z Program develops tools and advocacy materials including maternal nutrition guidelines while also building capacity of district-level health workers.

*opposite*

In the Democratic Republic of the Congo, women often bring their preschool aged children with them to work in the fields as did this mother who is standing amid a cassava project. Agriculture employs 84 percent of the women in the country. ©AP Images/Angela Rucker



Save the Children’s Food for Peace-funded Nobo Jibon program in Bangladesh offers maternal and child health and nutritional support, livelihood training, assets acquisition, and disaster risk reduction tools to poor, rural households. The program seeks to empower women to assume roles in household food production. Before the Nobo Jibon program, Nurnahar’s husband was the household’s only income earner and he was only able to work sporadically as a day laborer. Through Nobo Jibon, meaning “new life,” Nurnahar started cultivating bitter gourds and sold the excess in a nearby market. With her earnings she bought food, clothes, and medicines for her family and started a savings account. Nurnahar said of the program, “Nobo Jibon opened my eyes and now other women visit my plot and ask me how they can do it, too.”

# Scaling Up Pilot Programs to Create Transformational Change

Through investments and partnerships, including those with host country governments and multilateral organizations, Feed the Future seeks to:

- Ensure that women, as agricultural producers, have equal access to assets, inputs, and technologies, including land and other productive natural assets, extension services, financial services, agricultural inputs, and the knowledge to enable them to participate in and obtain appropriate returns from the agricultural system. Legal reforms, especially related to land rights, are often important to ensuring access and use.
- Expand leadership and participation of women in agricultural decision-making at all levels and in all institutions (community, national, regional, and global) related to policy, investment allocation, program development, and implementation. Strengthening the voice of women by increasing their participation in group activities leads to enhanced status and greater input into decision-making. Feed the Future is committed to facilitating women’s participation across society to promote gender equality and women’s empowerment in food security programs.
- Ensure the interests of women and men are reflected in Feed the Future policies and programs and those of the host country, including efforts to help ensure the participation of women, establish targets for participation of women, and monitor and evaluate program impacts on both men and women.

The pilot programs and best practices highlighted in this document represent just the beginning of our work. To bring about robust agricultural growth and reduce global malnutrition, Feed the Future is committed to working with host countries to significantly improve the ability of women farmers to reach their full agricultural productive capacity. This will require a systematic, collaborative effort to build on impact evaluations, best practices, and pilot programs using innovative and bold approaches for better integration of women into the agriculture value chain. The problem is complex, but Feed the Future is working on creative solutions that will help women and their families attain long-term food security for happier, healthier lives.