

FEED THE FUTURE IS LEADING ON CLIMATE-SMART AGRICULTURE AND FOOD SYSTEMS

For more than a decade, Feed the Future – the U.S. government's flagship global food security initiative—has worked to end hunger, poverty, and malnutrition while building sustainable, resilient, and inclusive food systems. Co-led by USAID and the Department of State, Feed the Future has helped reduce extreme poverty by 19 percent, hunger by 30 percent, and child stunting by 26 percent in the areas in which we work across a set of aligned countries in Asia, Central America, and East, Southern and West Africa (2010 - 2019). However, hunger still plagues 735 million people around the world and the impacts of climate change further complicates building sustainable food systems.

CLIMATE CHANGE UNDERMINES OUR ABILITY TO ACHIEVE FOOD SECURITY

Global demand for food is projected to increase by 50 percent between now and 2050. Feed the Future is making significant investments in developing and scaling innovations in order to mitigate projected climate impacts of as much as 30% reduced crop yields by 2050. Preparing for a hotter, drier, and more volatile climate is essential to ensuring food security today and in the years to come. Outlined below are examples of how Feed the Future draws upon the resources and expertise of its 12 U.S. government agencies in order to enable global climate-smart agriculture and food systems.



Photo credit: [World Vision](#)

INVESTING IN INNOVATION AND RESEARCH

USAID supports cutting edge research through the [CGIAR](#), formerly the Consultative Group on International Agricultural Research, and [17 U.S. university-led Feed the Future Innovation Labs](#) to strengthen climate-smart agriculture and food systems. This includes [two new climate focused Innovation Labs](#) that are working to develop improved varieties of rice, wheat, sorghum, and millet and addressing fundamental water challenges facing smallholder farmers. Additional Innovation Labs are focused on critical climate adaptation and mitigation challenges such as tackling food loss and waste and preventing and forecasting pests, diseases, and weeds that harm crops. In many cases, innovations can also benefit U.S. farmers and ranchers.

**Every dollar spent on
CGIAR agricultural
research results in a \$10
return on investment.**

In support of USAID's climate objectives, USAID aims to more than triple the land area under which its program participants apply climate adaptive and climate risk management practices, reaching more than 7.3 million hectares by 2030. At COP28, [USAID announced it exceeded its \\$215 million pledge to the CGIAR under the Agriculture Innovation Mission for Climate two years early, and will invest an additional \\$100 million, working with Congress, in the CGIAR over the next two years.](#) This funding

demonstrates how Feed the Future programs are ramping up efforts on research and development to accelerate climate-smart agriculture and food systems innovation and transformation.

CHAMPIONING GLOBAL FINANCE FOR CLIMATE-SMART FOOD SYSTEMS

Feed the Future programs tackle challenges across the entire food system, including increasing farmers' access to extension, innovation and financing, strengthening value chains and market systems, and supporting evidence-based policies. This support can bolster productivity, storage, processing, logistics, and agricultural and ag-related innovation, and focus on inclusion and sustainability.

The U.S. Department of Treasury employs its leadership within the international financial institutions to elevate focus on the nexus of food security and climate change. The International Fund for Agricultural Development (IFAD), through U.S. support, helps rural communities and agricultural producers in the poorest countries increase their livelihoods and build resilience to a changing climate. IFAD has committed to further increasing the share of its overall program of loans directed into climate finance, and has additional efforts under the Rural Resilience Program that play critical roles in directing targeted resources toward building climate resilience among rural small-scale producers.

Treasury is also Co-Chair of the Global Agriculture and Food Security Program (GAFSP), a multi-stakeholder platform that invests in smallholder farmers and supports the development of climate-smart, resilient food systems. Since 2010, GAFSP has supported the inclusion of climate change considerations across all program elements with the net result of having almost two-thirds of program grants include climate adaptation or mitigation co-benefits. While continuing to scale up its commitment to climate, GAFSP's overall portfolio is already a net reducer of greenhouse gas emissions.

In September 2021, the U.S. Development Finance Corporation (DFC) announced a five-year target to invest \$1 billion in food and agriculture, which supports improving food security and climate resiliency. Two years ahead of schedule, [DFC achieved this goal and intends to keep up the pace by investing an additional \\$1 billion by 2026](#). These transactions support smallholder farmers and are boosting global food production and mitigating the devastating global effects of food insecurity. DFC's efforts are critical to mitigate the impacts of Russia's war in Ukraine, which has compromised grain and fertilizer exports. Based on 2022 results submitted to DFC by 49 clients, DFC-financed projects have supported more than 3.9 million smallholder farmers, 98 percent of whom are in Sub-Saharan Africa.

USAID is also strengthening African agribusinesses by improving access to finance. Agricultural small- and medium-enterprises (agri-SMEs) are Africa's largest employer and economic engine. Yet three out of four of these businesses cannot access bank loans, and are too large for microfinance, creating an estimated \$100 billion gap in unmet demand for financing. USAID and Norway launched the [Financing for Agricultural Small-and-Medium Enterprises in Africa \(FASA\) Fund](#) to spur investment in Africa's agricultural growth. This fund will actively invest in climate adaptation and gender equality and has the potential to support 500 agri-SMEs, 60,000 private sector jobs, and 1.5 million smallholder farmers, ultimately benefiting nearly 7.5 million people.

ACCELERATING KNOWLEDGE SHARING AND CLIMATE INFORMATION TOOLS

Feed the Future, in alignment with the President's Emergency Plan for Adaptation and Resilience (PREPARE), is investing in improved forecasting capabilities, early warning systems, and a wide range of remote sensing tools that leverage the best science to help farmers and local governments protect agricultural productivity and livelihoods ahead of some of the worst impacts of climate change. USAID incorporates climate information into major research programs, such as the development of climate resilient seeds and technologies to maintain yields and improve efficient use of fertilizers and water. Under the [SERVIR](#) program, USAID, the National Aeronautics and Space Administration (NASA) and local experts work in 45 countries

to use satellites and climate data to strengthen drought preparedness, food security outcomes, and rangeland monitoring services for pastoralists.

Since 2019, USAID and the U.S. Department of Agriculture's (USDA) Foreign Agricultural Service have collaborated with interested countries to train hundreds of agricultural specialists on the use of USDA's Global Agricultural and Disaster Assessment System (GADAS). Feed the Future has helped support the dissemination of GADAS and strengthen government capacity on how to use near real-time weather, crop conditions, and natural disasters information, such as pinpointing areas affected by hurricane flooding in Honduras, drought monitoring in Panama, and monitoring climate impacts on crop production, such as rice in Peru. This set of tools is now featured in USDA's recently launched [International Climate Hub](#), which serves as a centralized resource for climate-smart agriculture tools and approaches, helping scale up innovations, and facilitating international collaboration. By sharing knowledge, bringing solutions to scale, and enhancing climate resilience, Feed the Future is working to drive sustainable food system transformation.

CLIMATE-SMART AGRICULTURE TECHNOLOGIES AND PRACTICES

Feed the Future is investing in developing innovative technologies and practices, and also innovative ways to support farmers to bring these to scale. This includes engaging everyone involved in the food system - especially women, youth, and people who are underrepresented and marginalized, who must be empowered as change-makers and have access to resources and innovations that work for them.

One of the most impactful innovations is improved crop varieties and livestock breeds that are more resilient to climate change. Over the past 6 years, in partnership with the Bill and Melinda Gates Foundation, USAID has supported production of the CGIAR-derived, stress-tolerant maize varieties benefiting nearly 50 million people in Sub Saharan Africa. Annual economic benefit for drought tolerant maize adoption in Eastern and Southern Africa alone is \$1.25-\$1.5 billion. USAID's Accelerating Innovation Delivery Initiative (AID-I), working with nearly 50 partners in two Rapid Delivery Hubs in South Africa and the East African Great Lakes region to accelerate distribution of climate-resilient seed varieties, reached nearly 2 million farmers in one year, 44 percent of whom are women. AID-I is partnering with the private sector and local agro dealers to ramp up access to improved seed which will reach 1.3 million additional smallholder farmers.

As part of Feed the Future, the U.S. is also investing in improving soil health and promoting crop residue retention and conservation tillage, which reduce the impacts of drought on crop yields by increasing soil water availability. In February 2023, as part of Feed the Future, the U.S. Department of State in partnership with the African Union and the Food and Agriculture Organization of the UN launched the Vision for Adapted Crops and Soils (VACS) to help communities adapt to climate change and strengthen food security by developing climate-resilient, nutritious crop varieties and building healthy, fertile soils. At COP28, the [State Department recognized the work of the inaugural VACS Champions and pledged \\$50 million, pending Congressional appropriations, to the VACS pillar under the International Fund for Agricultural Development's Rural Resilience Program](#). This is in addition to the \$100 million commitment for VACS-related initiatives announced in July.

The Peace Corps' Agriculture and Environment Volunteers and their host country counterparts in fourteen Feed the Future target countries assist smallholder farmers—around 65 percent of whom are women—to increase agricultural productivity, diversity, and sustainability through the dissemination and adoption of climate adapted and resilient regenerative agricultural and natural resource management practices and technologies. These efforts conserve soil and improve soil health, support water management, diversify production, and improve adaptation and mitigation benefits.

STRENGTHENING CAPACITY FROM FARMERS TO POLICY MAKERS

The U.S. works with partner countries to strengthen capacity from farmers, ranchers, and fisher people to extension officers to government officials. These efforts provide a pathway to boosting agricultural productivity among smallholder farmers, helping them diversify their incomes and strengthen resilience in the face of adverse climate conditions.

In particular, Feed the Future works with national agriculture research and extension systems, supporting development and deployment of climate-smart innovations. For example, in Tanzania, USDA and USAID supported the government in achieving policy priorities by creating new agricultural extension training courses on resilient agriculture that integrate climate, gender, and nutrition, laying a foundation for extension officers across the country to train farmers on best practices for local contexts to adapt to risks associated with a warming world. USAID's Enabling Farmers for Agricultural Transformation program also helps transform agricultural systems by ensuring local extension officers can enable farmers to use locally specific practices that lead to improved environmental stewardship and livelihoods.

Directly linked to these efforts to support farmers, Feed the Future countries receive technical support to implement adaptation and mitigation priorities in national agriculture sector plans and national climate policies, such as through USAID's Comprehensive Action for Climate Change Initiative. Feed the Future is also supporting an African-led process to develop a prioritized Fertilizer and Soil Health Action Plan that will improve retention of carbon in the soil, supports adaptation to climate extremes, and boosts the resilience of smallholders.

PARTNERING WITH THE PRIVATE SECTOR TO ACHIEVE CLIMATE-SMART IMPACTS AT SCALE

Feed the Future elevates market systems approaches to build resilience to climate change impacts and minimizing risks, recognizing every market requires different context specific approaches developed in collaboration with market actors. Private sector investments are essential to accelerate and scale successful programs and innovations. For this reason, the U.S. is deepening and expanding partnerships with the private sector and providing financial tools to support investment crucial to food security and agricultural development in low- and middle-income countries around the world.

The Millennium Challenge Corporation (MCC) works with countries to implement market-driven solutions to poverty and food insecurity, with a focus on climate change as one of its strategic priorities. MCC signed the \$537 million Connectivity and Coastal Resilience Compact with the Government of Mozambique in 2023, which features the \$141 million Coastal Livelihoods and Climate Resilience Project to restore the collapsing fisheries sector through carbon finance and improved coastal and marine management. Additionally, the Compact's \$30 million Promoting Reform and Investment in Agriculture Project will improve the investment environment for the private sector to work more directly with smallholder farmers using a results-based framework and reforming the application of taxes for transactions with unregistered farmers.

Last updated: December 2023