FINAL FY 2022 GLOBAL FOOD SECURITY STRATEGY (GFSS) IMPLEMENTATION REPORT

Final FY 2022 Global Food Security Strategy (GFSS) Implementation Report

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MESSAGE FROM USAID ADMINISTRATOR SAMANTHA POWER

This sixth annual review of the U.S. Government's commitments, achievements, and lessons learned in reducing global hunger, poverty, and malnutrition comes at a time when the world faces a food security crisis of historic proportions. The combined impacts of the COVID-19 pandemic, climate change, rising energy, food and fertilizer costs, and protracted conflict, including Russia's invasion of Ukraine, are leading to rising levels of poverty, hunger, and malnutrition across the world. According to the UN World Food Programme, as many as 783 million people are going to bed hungry each night. And the number facing a level of hunger so intense that their lives and livelihoods are at stake jumped from 193 million in 2021 to 258 million in 2022.

Since January 2021, the United States has provided more than \$17.5 billion to address famine and food insecurity, including through humanitarian assistance for food shipments, direct cash assistance, nutritional support, and other emergency measures. But such measures would be incomplete without long-term investments in agricultural and food systems around the world—investments that will not just address the current food crisis, but help countries sustainably produce enough of their own food to prevent another one.

That's why USAID has stepped up investments in Feed the Future (FTF)—the whole-of-government initiative designed for the express purpose of advancing agricultural innovation and building sustainable food systems that can help countries and communities feed themselves. In 2022, USAID expanded FTF operations to eight new target countries—the Democratic Republic of the Congo, Liberia, Madagascar, Malawi, Mozambique, Rwanda, Tanzania, and Zambia—bringing the initiative's total number of target countries to 20. As detailed in this report, new guidance is in development for these countries to implement the newly launched *Global Food Security Strategy* and to better address the chronic hunger and malnutrition these communities face.

Already we are taking bold steps to harness Feed the Future programming in order to feed the present, while sustainably supporting longer-term food security. Since the onset of the current global food crisis, USAID has expanded efforts to provide seeds, fertilizer, and financial resources to smallholder farmers, especially women, in some of the world's poorest communities; to help farmers more efficiently use fertilizer and groundwater; to grow crops resistant to drought, disease, and changing weather patterns stemming from the climate crisis; and to help store and process excess harvests that too often goes to waste. In addition, USAID has invested heavily in agricultural research—research that forms the basis of innovative, new technologies to boost crop yields and increase resilience to climate shocks. And we have expanded our partnerships with private companies, leveraging USAID funds to secure \$698 million in financial commitments in FY 2022 and valuable business expertise, as well.

In the years to come, Feed the Future will continue to play a critically important role in addressing the current global food crisis, while also preventing the next one by building the resilience of communities around the world.

Sincerely,

Samantha Power

USAID Administrator and Feed the Future Global Coordinator

Main Report on FY 2022 Implementation of the *Global Food Security Strategy* (GFSS)

Overview

The *Global Food Security Strategy* (GFSS) is a framework that guides the U.S. government's (USG) support to developing countries seeking to reduce food insecurity, malnutrition, and poverty while building resilience to recurrent crises. Authorized by the Global Food Security Act (GFSA) of 2016, the GFSS provides the framework for implementation of the USG's Feed the Future (FTF) initiative, a whole-of-government effort led by the United States Agency for International Development (USAID) to reduce sustainably global poverty, hunger, and malnutrition. The original GFSS covered the period from 2016 through 2021. Given the expiration of the initial five-year implementation period in FY 2021, the FTF interagency updated the GFSS in 2021 through extensive consultations with key stakeholders, reinforcing key tenets of the original strategy while also enhancing the response to COVID-19, climate change, conflict, and growing inequalities. More specifically, the updated GFSS aims to address the following:

- 1. **Scale up climate adaptation approaches to build resilience,** increasing investment in food and water security research and innovation to help communities withstand increasing droughts, irregular rainfall, and diminishing water resources;
- 2. **Counter the impact of COVID-19** by strengthening food production and market systems to increase incomes and make a healthy diet more affordable for the rural and urban poor;
- Adopt "food system" approaches across FTF investments, taking into account food's
 journey from cultivation to consumption, to increase economic resilience and improve
 nutrition;
- 4. **Integrate conflict sensitivity across FTF programs** to anticipate and mitigate food crises caused by increasing conflict; and
- 5. **Elevate equity and inclusion throughout FTF programming** by collaborating with local partners to create job opportunities for women, young people, and marginalized individuals, and broaden our partner base, diversifying the management of FTF research and programming.

While responding to our rapidly changing global context, the GFSS draws on the successes and lessons learned from the first phase of FTF to inform the ongoing second phase of the initiative's implementation. This report summarizes our efforts and results in FY 2022, along with long-term results achieved over the life of the FTF initiative, as required by Section 8(a) of the GFSA.

Results¹

After the first decade of the FTF initiative, we estimate that in the areas where FTF worked, the prevalence of extreme poverty decreased by an average of 19 percent, the proportion of households experiencing hunger decreased by an average of 21 percent, and the prevalence of stunting among children under five decreased by an average of 26 percent. Furthermore, women and women-owned businesses accessed more than \$975 million in agriculture-related financing since 2011 as a direct result of FTF's work globally. However, the combined impacts of

Notable Recent FTF Results Published Since Last Year's Report:

- In FY 2021, more than 7.5 million farmers and other producers applied improved management practices or technologies with U.S. Government (USG) assistance.
- In FY 2021, FTF programs helped smallholder farmers generate over \$2.5 billion in agricultural sales.
- In FY 2021, participants of FTF programs accessed over \$800 million in agricultural financing.

Russia's invasion of Ukraine, COVID-19, climate change, and other conflicts are reversing many of these gains. At the time that this report was drafted, FTF was continuing its work with both internal task forces and research units and external research institutions to better understand these long-term effects.

In the interim, results from FTF interagency analyses at the time highlighted a number of salient lessons to inform future FTF programming:

• Feed the Future investments yield positive impacts on food security and other target outcomes: In 2022, USAID's innovative portfolio-level, quasi-experimental impact evaluation of the FTF program in Bangladesh found significant, positive, attributable impacts on food security, empowerment, crop diversification, crop yield, and child iron intake.

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¹ FTF's monitoring data is published within one year as the process requires extensive data validation and review with our partners. As a result, this implementation report includes qualitative narrative descriptions of accomplishments in FY 2021 in addition to progress shown by published monitoring data for FY 2020 that have become available since the last GFSS implementation report was sent to Congress.

² Estimates are based on the average annual rate of change in poverty, hunger, and stunting, and the observed change that was measured in population-based surveys. Baseline surveys were conducted between 2008 and 2015, and endline surveys were conducted between 2016 and 2020. The average annual rate of change is used to estimate the total change that would have occurred over a seven-year period, under an assumption that the rate of change would have been constant over the period. This estimated rate of change is combined with observed changes, where data were available, to get a general initiative-level estimate of FTF's contribution to reducing poverty, hunger, and stunting. Because similar data on changes that occurred in areas where FTF does not work are not available across all countries, we are not able to attribute this change directly to FTF activities.

- FTF is well positioned to counter shocks, stressors, and volatility from the COVID-19 pandemic: Annual reporting data from FY 2020 and FY 2021 demonstrates FTF's ability to reach and benefit FTF target populations, even in the face of COVID-19 and without additional financial resources. Despite movement restrictions and other impacts of the pandemic, FTF programming and its impacts were able to continue demonstrating results during this period, highlighting the ability of the initiative to quickly pivot. Some key results illustrating this ability to respond include:
 - In FTF target countries, the value of sales for smallholder producers receiving USG assistance increased by more than 150 percent between FY 2019 and FY 2020 and by nearly 70 percent from FY 2020 to FY 2021.
 - The value of agriculture-related financing accessed as a result of USG assistance in FTF target countries increased from \$115 million to \$247 million from FY 2019 to FY 2020 and to \$372 million in FY 2021.
 - The number of individuals in the agri-food system applying improved management practices or technologies with USG assistance also increased by more than 50 percent between FY 2019 and FY 2021, reaching over 3.8 million individuals by the end of this period.
- Investing in agriculture research yields sizable economic impacts: A meta-analysis of impact case studies of U.S. investment in international agriculture-related research demonstrates the median value of economic impacts is estimated at \$8.4 billion compared to a cumulative investment of \$1.24 billion. About four-fifths of these economic benefits accrued to individuals with incomes under \$5.50/day, and about 29 percent to those in extreme poverty, with incomes under \$2.15/day.
- Investing in capacity-building activities yields results, as in Ghana poultry farms program led by USDA: A USDA-funded impact evaluation on the poultry sector in Ghana reflects the work of two Food for Progress (FFP) projects and provides evidence of what works in capacity-building activities with farms of varying sizes and across differing components of the poultry sector.
- Extension services to women reduces the negative impacts of climate change on agricultural performance: The Gender Climate and Nutrition Integration Initiative (GCAN) conducted research in Tanzania, Uganda, Malawi, and Nigeria showing that providing extension services to women reduces the negative impacts of climate change on agricultural performance. The study found that securing women with either access to advisory services or control over land significantly increases agricultural income. Specifically, it concluded that: 1) if women are added as extension recipients, agricultural performance is 13 percent higher than in case of men-only beneficiaries and 2) when extension-recipient women also contribute to decision making, the negative impact of floods on crop income is reduced by 19 percent. These findings add to the growing

evidence on the gendered dimensions of resilience, which were summarized in a new GCAN evidence brief.

Impact of Russia's Invasion of Ukraine on Global Food Security

Russia's unprovoked invasion of Ukraine not only caused immense suffering for the Ukrainian people, it also contributed to rising food, fuel, and fertilizer prices around the world. Russia and Ukraine export about 30 percent of the world's wheat and barley, one-fifth of its maize, and over half of its sunflower oil. The region is also a major supplier of agricultural inputs, accounting for 40 percent of exported fertilizers. The war adversely affected lives around the globe, particularly for communities already experiencing increased poverty, hunger, and malnutrition as a result of major shocks like COVID-19, climate change, and protracted conflict.

Impact on Global Food Security and Nutrition

Putin's invasion of Ukraine compounded an existing set of powerful drivers of acute food insecurity globally: an uneven recovery from the COVD-19 pandemic, weather extremes exacerbated by climate change, complex protracted emergencies, and pre-existing high food prices. As a result of these drivers, the world was facing a staggering global food crisis in 2021, when 193 million people already faced crisis levels of acute food insecurity, and 40 million people faced emergency levels of acute food insecurity according to the Global Report on Food Crises.

Taking these complex drivers into account, the World Bank estimated at the time that an additional 75 to 95 million people could be pushed into extreme poverty as a result of the invasion, climate change, the pandemic, and protracted emergencies. The UN Food and Agriculture Organization (FAO) reported that food prices were nearly 30 percent higher than the same period the prior year. Shortages of fertilizer, a key input for growing many of the world's crops, was also driving rising food prices. In the prior year, fertilizer prices nearly doubled from already historical highs, representing a 200 percent increase since the start of the pandemic to the time of this report. Fertilizer supply disruptions increased prices, which were projected to reduce fertilizer use and decrease agricultural productivity, exacerbating food insecurity at a time when global food stocks were low and prices were high.³ With reduced ability to buy or grow nutritious food, families were forced to make tough decisions, prioritizing food that was cheaper but did not provide adequate nutrition. In the medium term, several developing countries were exposed to increases in food and fertilizer prices which—if not mitigated—will likely reduce household incomes, undermine crop production, reduce seasonal labor opportunities, and further decrease household access to healthy diets.

The Horn of Africa was facing an extremely severe food security crisis during the reporting period. The region experienced a record-setting drought with four consecutive poor rainy

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 $^{^{3}\ \}underline{\text{https://www.ifpri.org/blog/how-will-russias-invasion-ukraine-affect-global-food-security}$

seasons. The UN reported that approximately 21 million people across Somalia, Ethiopia, and Kenya required emergency food assistance as of September 2022.

Ukraine Supplemental Appropriations

In June 2022, at the G7 Leaders' Summit in Germany, President Biden pledged \$2.76 billion in additional U.S. government resources to protect the world's most vulnerable populations from the growing global food security crisis exacerbated by Russia's invasion of Ukraine and the severe drought in the Horn of Africa. This pledge represented more than half of the over \$4.5 billion in additional resources that G7 leaders committed to addressing global food security at the Summit. The funding is supporting efforts in more than 47 countries and regional organizations, saving lives through emergency interventions, and mitigating further increases in poverty, hunger, and malnutrition in vulnerable countries affected by high prices of food, fertilizer, and fuel.

Of the \$2.76 billion in funding, approximately \$2 billion is supporting emergency food security, humanitarian nutrition, protection, water, and health programs needed to respond to sharply increasing emergency needs in communities with the most urgent and life-threatening crises. USAID, state, and the interagency are drawing on \$760 million to bolster FTF efforts to combat the effects of high food, fuel, and fertilizer prices in those countries that need it most, \$640 million of which is supporting bilateral targeted agriculture and food security programs to offset the worst effects of the crisis and strengthen agricultural capacity and resilience in more than 40 of the most vulnerable countries. This included Ukraine, as well as 24 countries in Africa, ten countries in Asia, six countries in Latin America and the Caribbean, and six countries in the Middle East. These investments, provided bilaterally and through USAID regional programs, are described further in the section below. The remaining \$120 million is financing multilateral efforts to leverage donor investments that help vulnerable countries build their resilience to shocks; strengthen social safety nets; increase the availability, access, and efficient use of fertilizer; address supply chain issues; and counter climate impacts for food security.

Humanitarian Response

To target the countries in most acute need of immediate emergency assistance in the global food security crisis, USAID's Bureau for Humanitarian Assistance (BHA) worked with the Bureau for Resilience and Food Security to analyze data from the International Food Policy Research Institute (IFPRI) and the Famine Early Warning Systems Network (FEWS NET) to determine the countries at highest immediate risk. BHA prioritized countries that had existing crisis levels of acute food insecurity coupled with exposure to the shocks from the invasion.

BHA took a multi-sectoral and phased approach to its global response. In the first months of the response, USAID and the U.S. Department of Agriculture (USDA) took the extraordinary step in April 2022 to draw the entire balance of \$282 million from the Bill Emerson Humanitarian Trust (BEHT). With these funds, USAID procured U.S. food commodities to bolster existing

emergency food operations in six countries already facing severe food insecurity: Ethiopia, Kenya, Somalia, Sudan, South Sudan, and Yemen. Commodity transport funds, including ocean and inland freight, internal transportation, shipping, and handling (ITSH), and other associated costs were covered via the Commodity Credit Corporation (CCC) managed by USDA, bringing the total BEHT expenditure in FY 2022 to \$609 million.

The second phase of BHA's response increased funding to existing awards where partners had nationwide reach in the countries in which they were already implementing emergency programs. This tranche of funding focused on delivering direct food assistance, funding a significant expansion of the treatment of severe wasting and other emergency nutrition interventions, as well as expanding health and humanitarian protection activities. BHA is the largest donor to the UN World Programme (WFP), which fed more than 4.3 million people and provided emergency nutrition assistance to nearly 560,000 people in Somalia in October 2022. The first and second phases of BHA's response also provided direct food assistance to more than two million people a month in Ukraine in the period after Putin's full-scale invasion.

The third phase of BHA's response was focused on integrating the crisis response into BHA's emergency multi-sectoral programming. This crisis was global in nature, has generated needs outside of food assistance, and will likely create long-term effects in countries experiencing humanitarian emergencies. As such, BHA has funded multi-sectoral programs that seek to meet the full range of emergency needs resulting from the crisis: funding to health, nutrition, protection, water and sanitation, agriculture, and economic recovery programs, which aim to prevent the expansion and deterioration of emergency needs.

FTF Response

The U.S. whole-of-government FTF initiative is driving global efforts to address this global challenge through four main responses. These involve:

- **Mitigating the global fertilizer shortage** by expanding fertilizer finance and investment across fertilizer supply chains, promoting more efficient use of fertilizer, increasing use of innovative soil nutrient sources, and encouraging better agricultural practices. Examples include:
 - Engagement by the U.S. International Development Finance Corporation (DFC) and USAID with global fertilizer suppliers to expand fertilizer availability and affordability and mitigate supply chain disruptions in Africa and Latin America.
 - Partnership with the International Fertilizer Development Center (IFDC) to develop and disseminate appropriate fertilizer recommendations and agronomic practices that reduce labor, support soil and water conservation, and enrich degraded soils over the long term, while building capacity of local institutions and stakeholders to sustain these efforts.

- Amplified food security programming in the field by Peace Corps with the return of Peace Corps Volunteers (PCV) to 11 countries in 2022, providing assistance to vulnerable smallholder farmers to improve soil fertility management.
- Support to the African Development Bank's (AfDB) existing fertilizer guarantee activity, the Africa Fertilizer Financing Mechanism (AFFM), to provide financing and credit guarantees and leverage private-sector financing for 4.5 million African farmers to help meet the growing demand for fertilizer in Sub-Saharan Africa. USAID will provide \$15 million to the AAFM. For every \$1 million in credit guarantees, this partnership is expected to leverage up to \$20 million in fertilizer sales.
- Support by USAID bilateral mission programs to provide short-term subsidies that allow smallholder farmers to access fertilizer at a discounted price and to produce or access organic fertilizers to improve soil health and increase effectiveness of inorganic fertilizer when used.
- Increasing investments in agricultural capacity and resilience through protecting crop production, reducing food loss, and supporting agribusiness. Examples include:
 - Feed the Future Innovation Lab (FTFIL) research programs that leverage technical expertise from domestic and host-country research institutions and institutions of higher learning, and \$1 billion annual appropriations in more than 40 countries to advance novel solutions such as drought-tolerant rice that support our goals to reduce global hunger, poverty, and malnutrition.
 - The FTFIL for Applied Wheat Genomics is building the largest public database of elite wheat varieties in the history of wheat breeding—more than 74,000 from Nepal, Bangladesh, India, and Pakistan and the CIMMYT global wheat program—enabling better prediction models that will allow breeders to rapidly select climate-resilient, high-yielding varieties and put them in farmer's hands. Six heat-tolerant, high-yielding, and farmer-accepted varieties for South Asia were released in 2021. More are in the pipeline.
 - USAID support to smallholder farmers and bakeries in Niger to source locally grown sorghum, as a substitute for expensive wheat imports. This alternative costs 35 percent less and improves nutritional quality.
 - Investment of more than \$68 million by The Inter-American Foundation (IAF) in Latin America and the Caribbean to help small-scale farmers increase resilience by diversifying production, improving their yields, adopting low-cost technologies, and accessing new markets.
 - Collaboration among USDA, USAID, and the Government of Tanzania to build farmers' resilience by mainstreaming Climate-smart Agriculture.
 - The Consultative Group on International Agricultural Research (CGIAR)-led \$70 million Accelerated Intervention Delivery Initiative will accelerate access and uptake of proven agricultural innovations to vulnerable, food-producing regions

that depend on smallholder farmers. Focal regions include critical food production systems in Sub-Saharan Africa that support agricultural populations of more than 300 million people. Regional Innovation Hubs will focus on effective agricultural advisory services to deliver critical information to rural communities; fertilizer production, distribution, and efficient use; seed sector support, including improving access to nutrient-dense and stress-tolerant crop and vegetable varieties; and increased credit and finance for smallholder farmers to have access to high-quality inputs, such as seeds and fertilizer.

- Cushioning the macroeconomic shock and impact on poor people by supporting social protection and safety nets, protecting nutrition, and building household, community, and system capacity to manage future shocks and stresses. Examples include:
 - Development and release of an International Financial Institution (IFI) Action Plan to Address Food Security on May 18, 2022, following the U.S. Treasury's call to action. The plan detailed how IFIs were accelerating, stepping up, and deepening their response to rising food insecurity.
 - FTF efforts to safeguard nutrition in Uganda by reducing the cost of fortified foods through facilitating businesses' access to government waivers on import taxes on vitamin and mineral premix and equipment.
 - OUSAID/Rwanda pivoted the Hinga Weze Small Livestock Program, facilitating support to agribusiness and protected household nutrition. This was done by distributing 86,400 chickens to 14,400 households across eight districts. In addition to improving household nutrition and dietary diversity, participating households and supply agents were provided a full package of inputs to care for their chickens, which included vaccines and specialized training on poultry house standards, feeds, transportation, marketing, business development, and general health standards for poultry businesses. This made the Small Livestock Program a key business provider for farmers and a nutritional conduit for households.⁴
 - O USAID is provided \$15 million to support vouchers for farmers, including seeds and tools; access to irrigation, including maintenance and extension of canals; community grants to build and improve storage and production capacities; training on post-harvest handling; training and provision of seeds through agrisuppliers to riverine farmers; and fodder distribution to pastoralists and agropastoralists. USAID aimed to reach approximately 700,000 people through social assistance programming and 56,000 people through capacity building that improved their capacities on soil fertility and conservation.⁵

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⁴ RFS Food Crisis Management Bi-weekly Update: January 2-13, 2023.

⁵ RFS Food Crisis Management Update - December 2022.

- IAF support to farmer groups in developing reserve funds to address future needs and partnering with local savings and loans associations to ensure access to credit.
- Sustaining high-level global political engagement by using the full range of diplomatic tools to seek commitments to address food security challenges. This includes:
 - The Ministerial Call to Action on Global Food Security hosted by Secretary of State Antony Blinken on May 18, 2022, bringing together more than 40 countries and organizations, affirming a collective commitment to the Roadmap for Global Food Security. This roadmap commits partners to act with urgency, at scale, and in concert to respond to the food security and nutrition needs of millions of people in vulnerable situations around the world.
 - USAID coordination with partners and other donors in countries such as Bangladesh, Malawi, Mozambique, and Nepal to quickly assess how price changes of food, fertilizer, and other essential commodities affected vulnerable communities.
 - FTF Coordinator Administrator Power's direct engagement with fertilizer companies and financial institutions to attract investments that alleviated shortterm stresses in the food system while addressing its underlying weaknesses.
 - USDA partnership with the African Union to develop and implement policies to strengthen food security, trade, and nutrition, particularly under the African Continental Free Trade Area.

Continuing Impact of COVID-19 and Response Strategy

Over the course of the reporting period, as COVID-19 continued to threaten global public health, countries shifted their approach to confronting a disease that has become increasingly endemic. Where initial responses often included restrictions on movement, closed borders, limits on public gatherings, and shuttered markets, the toll on poor and vulnerable populations that these measures have had made their long-term imposition untenable. Just as countries were rolling back their pandemic-imposed restrictions to reduce and hopefully reverse some of the negative impacts, the Russian invasion of Ukraine stymied the hopes of a rapid recovery, with the invasion's consequences on fertilizer availability, fuel prices, and food availability further driving food insecurity, malnutrition, and poverty globally. According to the UN's 2022 State of Food Insecurity in the World (SOFI), 828 million people were affected by hunger in 2021, which is an increase of 46 million from 2020 and an increase of 150 million from prior to the pandemic. Additionally, the World Bank estimated at the time that in 2022, between 75 million and 95 million more people would be living in poverty compared to pre-COVID-19 projections.

Additional waves of the pandemic significantly hurt USAID's ability to implement planned FTF activities, resulting in significant delays or even cancellation of planned interventions due to shifting government priorities and areas of investment. Government restrictions not only limited

the ability for FTF activities to be implemented, but also risked worsening food insecurity and poverty levels further and jeopardizing the prospects for economic recovery.

FTF responded to the COVID-19 outbreak by reprogramming and pivoting ongoing activities, embracing a significant increase in the use of digital platforms and tools to address COVID-19-induced restrictions on in-person gatherings. Examples of the increased importance of digitalization of programming include:

- USAID's Breakthrough ACTION program, in concert with a private sector partner, supported the testing of a new mobile app, AgriConecta, designed to modernize agriculture technologies and connect farmers to markets in Guatemala.
- USAID piloted and expanded the Village Saving and Loan Association (VSLA)

 Digitalization and Integrated Market Information System in Uganda to mitigate some of the bottlenecks caused by the COVID-19 pandemic, including restrictions on physical contact and group meetings that affected the operation of VSLA, participants' main source of financial inclusion.
- **USAID helped private-sector partners** in the Honduran agriculture sector take advantage of a growing virtual marketplace for both fresh produce and processed agricultural goods by web-enabling their operations.

The Agency continued to adjust programming both to expand ongoing activities and to add additional services and interventions that offset the secondary effects of COVID-19. Efforts focused on improving food security, providing agricultural subsidies, and strengthening targeted supply chains. Agriculture-led growth activities in particular responded to the pandemic by pivoting around several key areas:

- Market expansion and diversification strategies.
- Leveraging ICT and digital platforms to overcome movement restrictions.
- Collaborating with local and national governments to develop COVID-19 protocols, offer guidelines, and clarify rules and regulations.
- Integrating programming with COVID-19 training.

FTF continued to learn from the COVID-19 response, both regarding its impacts on FTF initiatives as well as the effectiveness of programmatic pivots and reprogramming. These new global challenges further highlighted the importance of the initiative's flexibility, adaptability, and responsiveness to meet the needs of the most vulnerable populations.

Addressing Climate Change

Beyond the Russian invasion of Ukraine and ongoing impacts of COVID-19, the world is confronting the increasingly grave challenges posed by climate change. The impacts of climate change are driving higher rates of food and water insecurity and increasing the rates of conflict and displacement.

Climate stressors, including increasing temperatures, shifting rainfall patterns, and rising sea levels, affect the livelihoods and income of farmers, herders, and smallholder producers. In turn, these climate stressors intensify other crises, exacerbating the effects of COVID-19 and conflict on increasing food insecurity, poverty, and malnutrition. The global community recognizes that developing countries are experiencing a disproportionate burden of extreme weather and climate events, despite having produced fewer emissions. Climate change disproportionately affects women and girls, who are often responsible for the increasingly difficult tasks of gathering and producing food, collecting water, and sourcing fuel for heating and cooking. Extreme weather events, such as droughts and floods, have a greater impact on the poor and most vulnerable than those with more available resources, including the 70 percent of the world's poor who are women.⁶

Recognizing the impact climate change is having on food security and the urgent need to address climate change to maintain development goals, President Joseph R. Biden announced the President's Emergency Plan for Adaptation and Resilience (PREPARE) on Nov. 1, 2021, at COP26. PREPARE activated a coordinated, whole-of-government approach, bringing together the diplomatic, development, and technical expertise of the United States to help more than half a billion people in developing countries adapt to and manage the impacts of climate change by 2030. Through PREPARE, the United States is responding to partner countries' priorities, strengthening cooperation with other donors, integrating climate risk considerations into multilateral efforts, and mobilizing significant private-sector capital for adaptation. During the first year of PREPARE's implementation in FY 2022, the effort made the following progress:

- FTF interagency representatives developed the food security component of the PREPARE Action Plan that will guide the work of 19 federal departments and agencies on international climate adaptation for the next three years. This includes work to support affected communities to integrate climate information into agricultural practices to get ahead of slow- and fast-onset climate events, identify sources of climate finance in support of food security objectives, and link this work to a country's government National Adaptation Plans. PREPARE also drew on lessons learned from FTF as an interagency coordination structure to inform early-stage efforts to build the monitoring, evaluations, and learning system for PREPARE.
- Reduction of Post-Harvest Loss: USAID committed \$1 million in FY 2022 to support the FTFIL for the Reduction of Post-Harvest Loss at Kansas State University. The research resulting from this lab will advance progress toward the Sustainable Development Goal target of reducing food loss and waste (FLW) by 50 percent by 2030.
- **FLW Partnerships**: In FY 2022, USAID supported the establishment of an FLW Partnerships Facility within the Market Systems and Partnerships (MSP) activity. This FLW facility provides matching co-investment grants to businesses in Bangladesh,

⁶ https://www.iucn.org/resources/issues-briefs/gender-and-climate-change

Kenya, Nepal, Niger, Nigeria, and Tanzania to increase the uptake and scaling of technologies and practices that reduce FLW, particularly for nutritious foods. Additionally, \$250,000 of FY 2022 Ukraine Supplemental funds will increase knowledge of climate-smart circular economy training to reduce FLW implemented by the Feed the Future Food Systems for Nutrition Innovation Lab.

• Sustainable Productivity Growth (SPG) Coalition: USDA launched this Coalition at the United Nations Food Systems Summit in 2021. The SPG Coalition is another channel for cooperation to foster increased sustainable and climate-smart agriculture productivity using the same or fewer inputs, while ensuring the availability and affordability of food around the world. The SPG Coalition is preparing its first annual report, which will provide a compendium of members' actions accelerating sustainable agricultural productivity growth at different scales in different sectors and regions around the world.

In line with these actions directly tied to PREPARE, FTF continued to amplify its response to the impacts of climate change over the last year, with enhanced focus on adaptation and, where appropriate, mitigation. Notable examples of climate change efforts in FTF programming over the last year include the following:

Bolstering Global Investment in Climate-Smart Agriculture: At the COP26 summit, USAID, State, and USDA, in partnership with the United Arab Emirates, launched the Agriculture Innovation Mission for Climate (AIM for Climate) initiative to invest in climate-smart food systems. In line with this, USAID committed \$215 million over five years to support the CGIAR in helping 200 million people in South Asia and Sub-Saharan Africa to raise agricultural productivity by 25 percent by 2030. USAID also established two new FTFILs in FY 2022 – one on Horticulture and one on Current and Emerging Threats to Crops – to ensure a pipeline of innovations that address climate-resilient fruits and vegetables and mitigate the threat posed by pests and diseases that are increasing due to climate change. In addition, the Millennium Challenge Corporation (MCC) concluded its grants program, implemented by the U.S. African Development Foundation (USADF), supporting climate-smart agriculture interventions with smallholder farmers. These grants were highly inclusive, with more than 40 percent going to women's groups, addressing food security by decreasing post-harvest losses, and increasing food availability during times of shortages, while also promoting economic development and gender equality.

⁷ USAID. November 11, 2022. "USAID reaffirms commitments to investments in climate smart food systems." https://www.usaid.gov/news-information/press-releases/nov-11-2022-usaid-reaffirms-commitments-to-investments-in-climate-smart-food-systems

- Monitoring Climate Change from Space: Through the SERVIR Program, the National Aeronautics and Space Administration (NASA) and USAID continue to support an innovative program using satellite imagery to track weather patterns and droughts, floods, and other climate shocks to help local experts on the ground predict weather events. The findings aim to help communities, farmers, and families take action ahead of a crisis. Furthermore, USAID and NASA have signed a Memorandum of Understanding⁸ that reaffirms their commitment to collaboration across programming inclusive of food and water security.
- GADAS (Global Agricultural and Disaster Assessment System): USDA maintains a state-of-the-art, web-based GIS system with weather, drought, and vegetation condition data integrated with crop masks, land cover, and infrastructure data. Geospatial tools such as hourly disaster alerts and tools to calculate agricultural areas are integrated in the system. GADAS uses satellite imagery and remote-sensing data to assist in making agricultural estimates of global crop conditions and provides monthly estimates of area, yield, and production for 17 distinct commodities in more than 160 countries around the world, including post-disaster assessments.

Moving forward, helping farmers adapt to climate change will continue to be central to FTF programming. In addition to the vision provided by the GFSS, FTF's response will be shaped by the various interagency climate strategies, including the U.S. International Climate Finance Plan⁹ and individual strategies such as USAID's Climate Strategy¹⁰ and MCC's Climate Commitment.¹¹

FTF Country Expansion

Following the updating of the GFSS in late 2021, the FTF interagency embarked on a rigorous review and selection process to expand the number of FTF target countries. This process was driven by the following criteria, as defined in the GFSA of 2016: 1) Level of need; 2) Potential for agricultural-led growth; 3) Opportunities for partnership; 4) Opportunities for regional economic integration; 5) U.S. government resource availability; and 6) Government commitment to food security investment and policy reform. In the wake of the full-scale Russian invasion of Ukraine in February 2022, the interagency also considered candidate countries' increased vulnerability to food security as a result of the invasion.

⁸ USAID. November 4, 2022. "USAID and NASA renew partnership to address climate crisis, food security, and humanitarian challenges." https://www.usaid.gov/news-information/press-releases/nov-04-2022-usaid-and-nasa-renew-partnership

⁹ White House. April 2021. "U.S. International Climate Finance Plan." https://www.whitehouse.gov/wp-content/uploads/2021/04/U.S.-International-Climate-Finance-Plan-4.22.21-Updated-Spacing.pdf?source=email
¹⁰ USAID. November 3, 2021. "USAID Climate Strategy, 2022-2030."
https://www.usaid.gov/sites/default/files/2022-11/USAID-Climate-Strategy-2022-2030.pdf

¹¹ Millennium Challenge Corporation. April 21, 2021. "Commitment on Climate." https://www.mcc.gov/resources/doc-pdf/doc-042221-climate-commitment

Taking all these criteria into account, FTF expanded its global footprint from 12 to 20 target countries. The eight new countries are: the Democratic Republic of the Congo, Liberia, Madagascar, Malawi, Mozambique, Rwanda, Tanzania, and Zambia. The next step will be for FTF target countries to develop their GFSS Country Plans. USAID developed a framework for the planning process and provided guidance to posts near the end of FY 2022. These are five-year Interagency Plans, developed and owned by interagency teams at post and coordinated by the USAID/FTF Coordinator at post. Country Plans are high-level documents that lay out programmatic priorities for FTF programming in the country.

Country Ownership

Under this renewed and expanded support, FTF continues its commitment to country ownership – that is, country governments achieving locally sustained results, mobilizing public and private investments, strengthening local capacities, and accelerating enterprise-driven development. In line with this driving philosophy, FTF supports national policy reform and implementation and partners with country governments to set their own policy and funding priorities for food security and nutrition. Areas of engagement include: helping countries to adopt policies that will sustainably increase productivity and mitigate risk from emerging threats to agriculture; investing in policy research; and developing the capacity of local governments and grassroots organizations to engage in multi-sectoral "systems" analysis of key challenges in the realms of agriculture, resilience, food security, and nutrition.

Over the last year, the FTF interagency has provided policy support to FTF Country Teams through several key initiatives:

- Agricultural Sector Policy Reform: Through its Compact Program with the Government of the Republic of Niger, MCC supported two important country-led reforms: 1) bans on the participation of state-owned enterprises for agricultural inputs from participating in the fertilizer sector, resulting in the tripling of fertilizers available; and 2) ongoing support to the Fertilizer Common Fund, which provided subsidized vouchers to more than 20,000 farmers while allowing the private sector to compete.
- Support to the African Union's Comprehensive Africa Agriculture Development Programme (CAADP): USAID continued its support to the African Union's CAADP and the third Biennial Review (BR), which helps African countries assess progress on food security commitments and determine policy priorities. The third BR showed the need for greater investment in agriculture, yet many indicators were harmed by COVID-19 measures.
- Strengthened local think tanks and research institutes: USAID deepened its partnerships with local organizations, including the Regional Network of Agricultural Policy Research Institutes based in Zambia and AKADEMIYA2063 based in

Rwanda, to work with governments and other policy stakeholders on critical policy decisions such as implementing climate policy, addressing the global price crisis, and promoting intra-African trade.

• Enhanced policies on food trade: Through the Partnership for Inclusive Agriculture Transformation in Africa (PIATA) implemented by AGRA to catalyze agriculture development in Sub-Saharan Africa, work continued over the past year on policies to strengthen food trade. Since the start of this policy support, AGRA reduced the time it takes to develop and implement policy from eight to ten years to three to five years.

In 2018, the FTF interagency developed a policy and review process for graduating target countries from "target-country status" to fulfill Section 5 (a)(16) of the GFSA. The annual review process uses quantitative and qualitative data to evaluate a target country's readiness to graduate from target-country status into a different, less resource—intensive form of partnership with the U.S. government. While FTF piloted the project in 2019, FTF suspended the process in 2020 due to the COVID-19 pandemic. The interagency will continue to monitor both the global and individual contexts of GFSS target countries to determine the appropriate time to resume target-country graduation reviews.

Supporting Resilient, Productive, and Well-Nourished Communities

FTF partners with countries to build more resilient food systems that strengthen nutrition services and expand inclusive economic growth. This involves working across whole-of-government strategies and other sector initiatives to pursue solutions that bring together sectors such as agriculture, resilience, nutrition, and water to address the compound effects of climate shocks, COVID-19, gender and other social inequalities, and conflict. We integrate a "do no harm" approach into all activities to avoid creating community tensions and inadvertently increasing gender inequalities or gender-based violence.

Despite compounding shocks, the FTF interagency made progress within the following pillars of the GFSS over the last year:

• Resilience: Using supplemental funding, the State Department initiated a number of resilience-related efforts in response to the global food crisis. These included support for the International Fund for Agricultural Development's (IFAD) Crisis Response Initiative (CRI) to help protect livelihoods and build resilience in rural communities, as well as to the Africa Risk Capacity Africa Disaster Risk Financing Programme (ADRiFi) to help African governments respond to food system shocks by increasing access to risk insurance products. USAID updated the 2012 *Policy on Building Resilience to Recurrent Crisis* and issued a new draft Resilience Policy for stakeholder comment, to be finalized in 2023. The Agency also continued support to 15 FTF Resilience Focus Countries, allowing innovation and scale-up of resilience-strengthening investments in each. In FY 2022, RFS planned to grant \$25 million to

eight Resilience Focus Countries through the Resilience Challenge Fund (RCF) for activities that: scale resilience programs; demonstrate innovative and effective approaches to building resilience to recurrent crises; and influence and leverage significant non-USG resources to scale those approaches. In Kenya, for example, an RCF award supported the Impact Fund for Northern Kenya to mobilize and de-risk private capital for micro-, small, and medium enterprises. This has helped attract commercial capital to the traditionally marginalized region of Northern Kenya, advancing development progress. In Malawi, prior-year RCF funding for a \$4 million pilot activity to engage private-sector partners has been scaled up in USAID/Malawi's flagship Agricultural Diversification Activity, which leverages private-sector infrastructure to deliver market-led innovations, generating \$32 million worth of investment. The capital injection enabled households affected by Tropical Storms Ana and Gombe to rebuild. Additionally, to support FTF Target Countries in strengthening resilience to recurrent shocks and crises, FTF agencies continued to refine important technologies used to forecast and monitor natural disasters. For example, the U.S. Geological Survey (USGS) and the National Oceanic and Atmospheric Administration (NOAA) received support from and provided technical input to, USAID's FEWS NET. FEWS NET is the global gold standard for food insecurity early warning, which monitors climate variability and change, agricultural production, livelihoods, markets, and conflict to gauge their aggregate effects on food security. The previously noted SERVIR collaboration between NASA and USAID is providing countries affected by climate change with digital tools and timely information, improving their forecasting and early-warning systems.

• Agriculture-Led Growth: In FY 2022, the Interagency Working Group on Research (IWGR), co-led by USAID and USDA, led an extensive review and consultative process to update the Global Food Security Research Strategy. As described previously, this revised strategy marks a significant achievement and will guide research going forward from 2022-2026. To accelerate the benefits of research, USAID and interagency partners are applying best practices from the private sector using a product life-cycle approach. ¹² In support of this effort, USAID launched its Innovation to Impact activity, which shares innovations from USAID's centrally managed research programs with research coordination hubs closer to where they might be applied. This includes a hub in West Africa developed in partnership with the West and Central African Council for Agricultural Research and Development (CORAF) and in Cambodia, a hub developed in partnership with the Royal

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¹² The Product Life Cycle (PLC) is an end-to-end management tool that advances products based on fit and identifies downstream actors who must be engaged at each stage to address bottlenecks as a product advances. While large companies can work across the entire value chain, USAID focuses on strengthening markets that are less mature and connected. The PLC helps many small producers and businesses link together to engage in production and commercialization.

University of Agriculture. FTF also created several new, innovative partnerships with major U.S. food and agricultural organizations and companies to unlock additional finance in the agriculture sector. This includes the Aceli Africa Initiative described further in the *Mobilizing Private Sector section* below. Over the last year, the IAF continued to provide grants for training for smallholder farmers to improve yields, storage, and processing and diversify production. With the return of Peace Corps Volunteers (PCV) to 11 countries following evacuations during the pandemic, inperson farmer training continued. Finally, by the end of FY 2022, DFC had committed \$786 million in food and agriculture investments in private-sector entities that play important roles in strengthening local agricultural economies and food systems.

Nutrition: As part of interagency efforts to maximize nutrition impacts, USAID identified 14 Nutrition Priority and four Strategic Support Countries. This targeted approach to nutrition investments at the country level aligns USAID resources with need, opportunity, and the latest evidence on multi-sectoral nutrition to deliver the greatest possible impact. USAID also led an interagency process to develop the USG Global Nutrition Coordination Plan 2021-2026 (GNCP 2.0), which launched in November 2021, ahead of the Nutrition for Growth (N4G) Summit in December 2021. USAID built national and regional sanitary and phytosanitary (SPS) and food safety capacity to strengthen safe, nutritious food systems and address poverty, hunger, and malnutrition through continued interagency coordination as part of the Food Safety Network interagency agreement with the U.S. Department of Agriculture. In addition, given the increasing focus on food safety as a development priority in alignment with the GFSS, the interagency supported the Innovation Lab for Food Safety, expanding its research portfolio to improve access to safe, nutritious foods for the world's most vulnerable populations. Finally, DFC and USAID continued to collaborate under the recently signed Global Nutrition Financing Alliance to provide increased financing to businesses producing nutritious foods for local populations. Seeking to mobilize at least \$100 million to reduce global malnutrition by investing in multi-sectoral approaches and encouraging increased private-sector engagement in nutrition, the first investment under this partnership was committed in July 2022.

Across these FTF focus areas, the Department of State (State) and USAID led the interagency in promoting global, regional, national, and subnational policies underpinning FTF's work. Through robust engagement and partnership with leading organizations, such as WFP, FAO, and IFAD, State, the Department of the Treasury, and USAID continued to support the FTF goals of sustainable reductions in hunger and malnutrition, driving advancement in sustainable and climate-smart food systems practices and technologies, and promoting U.S. economic prosperity and national security.

Mobilizing the Private Sector

Partnering with the private sector—and strengthening the capacity of the enabling environment in which it operates—is a critically important part of FTF's approach to implementing the GFSA. FTF has a strong track record of engaging the private sector to modernize and transform food systems in the places where we work. In light of Russia's invasion of Ukraine over the last year and ongoing COVID-19-related disruptions, private-sector partnerships are as important as ever to FTF partners, with significant inflationary pressures having dramatically increased the costs of agricultural inputs, including fertilizers and fuel. These impacts have had devastating impacts on farmers and small and medium enterprises (SMEs) involved in the local production, processing, and moving of food products in developing countries, increasing the need for capital deployed to agricultural companies. Responding to these intensified pressures, private-sector partnerships continue to emphasize inclusive and pro-poor growth, elevate women's economic empowerment, and work more closely with the local private sector. This includes work with nontraditional partners in line with the USG-supported principles of Diversity, Equity, Inclusion, and Accessibility (DEIA).

FTF's progress in strengthening private-sector partnerships over the last year is seen through a number of innovative examples:

- The Global Nutrition Financing Alliance, led by DFC and USAID, made its first commitment in July 2022 to support increased private-sector engagement in nutrition, providing financing to businesses producing nutritious foods.
- The FTF Ag Finance Unit (the "Food Security Unit [FSU]"), established by USAID and DFC in July 2020, continued to provide finance for privately-owned enterprises investing in food security and water and sanitation projects in the countries eligible for DFC financing (most of Latin America, Africa, Eastern Europe, and Asia). In FY 2022, with the leadership of FSU, DFC committed \$791 million of investments in private-sector partners in furtherance of FTF's goals, representing a more than 100 percent increase over DFC's FY 2021 food and agriculture commitments. Importantly, teams across the entirety of DFC are pursuing food security transactions, including using DFC's newest equity authorities and products to support companies seeking to solve critical food security challenges in, including through enabling the use of technology. The FSU, in particular, has focused on developing a broad pipeline and advancing smaller and more catalytic transactions. Of the 11 transactions FSU executed in FY 2022, five were for less than \$10 million each (averaging less than \$6.2 million per transaction), with the smallest being a loan of \$3.75 million to Mvuvi Holdings (Chicoa), a sustainable aquaculture operation in rural Mozambique that has been demonstrated by the Global Alliance for Improved Nutrition (GAIN) to increase the availability of much-needed white protein among low-income people.

- Aceli Africa: Through the Aceli Africa program, USAID's anchor commitment of \$10 million has secured more than \$62 million in commitments from the Dutch Ministry of Foreign Affairs, IKEA Foundation, Swiss Agency for Development & Cooperation, and the UK Foreign, Commonwealth & Development Office (FCDO), which in total will mobilize and additional \$600 million in private-sector finance for agriculture in Uganda, Rwanda, Tanzania, and Kenya. Since Aceli's inception in September 2020, it has supported financial institutions in target countries to increase their share of lending to agriculture and agri-SMEs. Activities financed include promoting local production of inputs, particularly organic fertilizer; reducing food loss for perishable crops through renewable energy technology; and scaling up conservation agriculture practices to boost crop productivity. Over the course of 2022-2024, Aceli plans to mobilize \$175 million in lending for food crop value chains in East Africa via more than 1,000 loans to agricultural SMEs. To date, 58 percent of Aceli-supported loans (\$25 million in total) contribute to food security and nutrition in East Africa. As a result, these SMEs have purchased \$122 million in crops from 371,000 smallholder farmers across Rwanda, Uganda, Tanzania, and Kenya. Aceli is developing criteria for assessing loans that meet the youth inclusion impact area.
- The USAID FTF Partnership for Sustainable Supply Chains, a partnership launched in 2020 with Root Capital (lender), Keurig, Dr Pepper (commodity buyer providing grant funds), and Ezrah Charitable Trust is providing loans, grants, and capacity building to help small agricultural businesses recover from the economic effects of the COVID-19 pandemic and build resilience. It focuses on export-oriented producer co-ops that serve a large number of smallholders. Since inception in August 2020, the Partnership has reached 56 enterprises overall, provided grants to 20 enterprises, helped 39 enterprises strengthen their business performance, and supported 33 enterprises in adapting operational and financial planning. Supported enterprises have realized nearly \$133 million in sales since inception, exceeding Root Capital's projected sales target. This is partially but not fully explained by price increases for target commodities such as coffee, providing an indication that our combined support helped these agribusinesses cope and recover.

Women and Youth Leading the Way

Inclusive development, particularly investing in women and youth, has been at the core of FTF's work since the start of the initiative. Overcoming the exclusion of these and other groups is recognized as central to achieving GFSS poverty reduction, food security, nutrition, and resilience objectives. In the face of the Russian invasion of Ukraine, COVID-19, climate change, and conflict, FTF is increasing its work on gender equity and women's empowerment as well as strengthening youth empowerment and livelihoods in its programming, policies, research and analytics, and learning systems. It is also addressing issues of intersectionality, for example, to

engage more with persons with disabilities, Indigenous People, and LGBTQI+ individuals and advancing locally-led development. For communities and countries to prosper, women and girls, young people, and other groups facing exclusion must have equal access to resources and services, including finance, skills and capacity development opportunities, strengthened rights to land and other assets, improved opportunities to meaningfully engage in decision-making, and the ability to live free of gender-based violence and multiple and intersecting forms of discrimination. FTF highlights from the last year include:

- The Alliance for Inclusive and Nutritious Food Processing (AINFP) mobilized technical assistance from seven global companies to support small and growing food companies in Africa, with an emphasis on firms led or owned by women. In the first half of FY 2022, AINFP provided customized technical assistance to 34 femaleowned or -led processors including training in food safety in Kenya, Ethiopia, Malawi, Tanzania, and Zambia. In addition, 163 out of 185 (88 percent) of newly employed or internship participants in female-owned or -led processing companies, were youth. This holds potential for scaling up going forward.
- The FTFIL for Crop Improvement (ILCI) supported plant breeding programs' attention to gender equality by conducting research to identify and capture crop trait preferences and social differences among producers and other value chain participants to inform breeding priorities, with a specific focus on gender-inclusive value chain mapping. ILCI also initiated a study of women and youth inclusion in seed systems.
- The FTFIL for Fish in Bangladesh conducted research on rohu carp aquaculture that confirmed youths' more rapid uptake of technology than older adults and supported youth involvement in sustainable fisheries.
- USDA's COMPASS Activity: USAID/Bangladesh continued to fund the COMPASS Activity implemented by the USDA Forest Service through a locally-led approach that engages youth in a Youth Conservation Corps that supports their employment and environmental stewardship. It also funded the Livestock and Nutrition Activity through which youth receive training on market linkage opportunities to sustainably advance their livestock businesses. USAID Rwanda's new Employment and Entrepreneurship Activity also continued its focus on youth, women, and persons with disabilities and seeks to increase jobs and build workforce capacity in the food and agriculture sector.
- **Development Diplomacy:** USAID provided strong global leadership in FY 2022 by contributing to development of negotiation of both the *Committee on World Food Security (CFS) Voluntary Guidelines on Gender Equality and Women's and Girls' Empowerment in the Context of Food Security and Nutrition and the CFS Policy Recommendations on Promoting Youth Engagement and Employment in Agriculture*

and Food Systems for Food Security and Nutrition. USAID also continued its strategic partnership in Generation Africa, as part of the Partnership for Inclusive Agricultural Transformation in Africa (PIATA), which piloted an Ecosystems Development Framework for youth agripreneurship in Senegal and Rwanda.

• Water Access Acceleration Fund (W2AF): DFC's participation in the Water Access Acceleration Fund (W2AF) has begun to promote Women's Economic Empowerment initiatives and qualifies as a project under DFC's 2X Women's Initiative. The latter aims to catalyze billions of investments in projects that are owned by women, led by women, or provide a product or service that empowers women by challenging projects to meet certain criteria. The Fund addresses the "consumption" criteria under 2X as women and children tend to be the primary people responsible for obtaining water for the households. The Fund also meets the "leadership" criteria, being led by a woman (Dina Pons) and with women comprising 60 percent of the core team. Finally, the Fund aims to adopt a gender lens investing approach and encourage its investee companies to increase female representation at the executive and board levels as well as in the workforce.

Evidence, Research, and Technology Lay the Groundwork

Capturing findings from FTF activities and learning from these investments is a key tenet of the initiative. Lessons from implementation provide insights into what has and has not worked, generating an evidence base that, in turn, informs future programming decisions. Using data and narratives from robust monitoring and evaluation systems, FTF draws on both quantitative and qualitative performance assessments and evaluations of our investments. Examples of lessons learned from the past year include the following:

- Capacity building in Ghana poultry farms yields agricultural gains: A USDA-funded impact evaluation on the poultry sector in Ghana reflects the work of two FFP projects and provides evidence of what works in capacity-building activities with farms of varying sizes and across differing components of the poultry sector.
- School meals and education-strengthening activities in Mozambique improve literacy levels in children: A USDA-funded impact evaluation on how school feeding projects affected literacy rates in Mozambique was completed in summer 2022. This impact evaluation generated strong evidence that school meals in combination with education-strengthening activities can improve literacy levels in primary school-aged children despite challenges faced in the ongoing COVID-19 pandemic.
- Extension services to women reduces the negative impacts of climate change on agricultural performance: The Gender Climate and Nutrition Integration Initiative (GCAN) conducted research showing that providing extension services to women

reduces the negative impacts of climate change on agricultural performance. These findings add to the growing evidence on the gendered dimensions of resilience, which were summarized in a new GCAN evidence brief.

- Enhanced data gathering tools and guidance informing analyses of gender issues: The Women's Empowerment in Agriculture Index (WEAI) activity developed an instructional guide and decision tree to allow WEAI users to identify the most appropriate version of the WEAI to use for their monitoring purposes. As part of a global partnership, the Women's Empowerment Metric for National Statistical Systems (WEMNS) continued to be tested and resources materials developed as part of the 50x2030 Initiative to Close the Agricultural Data Gap.
- FTF Innovation Labs data on the utility of new agricultural tools: Highlights from the last year include:
 - The Soybean Innovation Lab (SIL) designed an affordable Multi-Crop Thresher (MCT) with a Ghanaian fabricator that reduces threshing time by 80 percent, which allows women and youth to invest in higher-value activities. 61 percent of women-led thresher groups reported better prices for their crops when using the SIL MCT, and 55 percent reported an increase in cash on hand and access to credit.
 - Through a partnership between the SIL and the FTF Agriculture Diversification Activity in Malawi, a soy processing technology, known as a soy kit, was developed and introduced to the Malawian market. Soy kits present unique income-generating opportunities for rural women to process soybeans into soy milk and solid byproducts while increasing household nutrition via the introduction of high-protein food sources. After data collection on soy kit business profitability and soy milk production, the return on investment was determined to be 163 percent.

Catalyzing Research Investments

The USG *Global Food Security Research Strategy* (GFRS) guides prioritization of FTF's research investments in FTFILs, other U.S. university-based programs, and the centers of CGIAR. In FY 2022, the interagency Working Group on Research (IWGR), co-led by USDA and USAID, led an extensive review and consultative process to update the GFRS. The revised strategy, covering the period of 2022-2026, incorporates new and elevated priority areas from the GFSS, as well as research-specific themes. These include climate-smart agriculture innovations, nutrition and food systems, and genetic improvement of crops and livestock. The GFSRS outlines the critical role research plays in sustaining and improving agricultural productivity, profitability, and resilience of food systems and agriculture; enabling affordable, nutritious diets

for a well-nourished population; meeting the challenge of climate change; and advancing DEIA and institutional strength and capacity.

FTF refines and amplifies these strategic elements in partnership with the presidentially appointed Board for International Food and Agricultural Development (BIFAD), which is attached to USAID, and other activities sponsored by non-FTF USG Departments and Agencies.

In line with the updated GFRS, FTF agencies initiated a number of efforts to ensure the effective use of resources for research to address key priorities. USDA continued to implement four centrally-managed research projects, two that support FFP and two that support the McGovern-Dole Program. Another example was the Sorghum and Millet Innovation Lab's deployment of a new sorghum variety, called "Merera." This variety adds disease resistance to the farmerpreferred sorghum in Western Ethiopia, with up to a 43 percent increase in yield. After extensive research and plant breeding efforts in partnership with the Ethiopian Institute of Agricultural Research (EIAR), EIAR officially registered the variety, multiplied seed, and linked with farmer associations for promotion. In addition, the Soybean Value Chain Research Innovation Lab made important advances over the last year in addressing Red Leaf Blotch (RLB), a serious fungal disease of soybeans. Native to Africa, RLB is listed in the U.S. Federal Select Agent Programs (along with Ricin, Smallpox, and Bubonic Plague), and as such it is nearly impossible to conduct research on the disease in the United States. To address this lack of knowledge, the Innovation Lab began screening germplasm for RLB resistance in non-U.S. soybean lines that could help breeders develop RLB-resistant soybean cultivars. Finally, as described further in the section on "Women and Youth Lead the Way," the Feed the Future Innovation Lab for Fish in Bangladesh and Feed the Future Innovation Lab for Crop Improvement (ILCI) made important advances in agricultural research while also gleaning important findings about gender and youth dimensions.

Digital Technologies

As the world becomes increasingly digitized, FTF will continue to leverage existing and new digital technologies responsibly to increase the reach and effectiveness of its programming. This includes efforts to bridge the gender digital divide. The role of digital technology in agriculture was clearly stated in the original GFSS: "Digital technologies in agriculture, such as sensing technologies, geospatial data, big-data analysis of production and weather, and telemetric farming can make agriculture more precise, productive, resilient, profitable, and financially inclusive." In FY 2022, the FTF interagency continued to deploy technologies in support of GFSS objectives. The USGS, for example, worked with the University of California at Santa Barbara (UCSB) to improve current season yield and production estimates using machine learning methods. In addition, through investment in the Digital Frontiers activity, USAID cofunded the 2022 ICTforAg Conference with the German Aid Agency (GIZ); continued

¹³ USAID. September 2016. "U.S. Government Global Food Security Strategy: FY 2017-2021." https://www.fas.usda.gov/sites/default/files/2016-10/u.s. government global food security strategy fy17-21.pdf

supporting the Digital Agri Hub, jointly funded with the Bill & Melinda Gates Foundation and UK Foreign, Commonwealth and Development Office (FCDO); conducted digital agriculture ecosystem assessments for USAID Missions in Haiti, Honduras, Malawi, Mali, Tajikistan, and Uganda; and launched two studies related to farmer-centric data governance and the implications of artificial intelligence and automation on inclusive economic growth in agri-food systems.

APPENDICES

Appendix A: Interagency Working Group Updates Under the Global Food Security Strategy (GFSS)

FTF has multiple interagency working groups, most co-chaired by USAID and one of the 11 other FTF federal departments and agencies. Each working group leverages the expertise of the USG agencies and departments to advance its issue-specific agenda, guide the broader interagency, and support USG staff at-post along with partner governments, civil society, and the private sector in each of the FTF target countries as they implement their Country Plans. Below are updates on the activities and achievements of the working groups over the past year.

Working Group on Feed the Future Target Country Expansion

Following the release of the updated *Global Food Security Strategy* (2022-2026) in October 2021, the FTF interagency embarked on a data-driven, consultative process to expand the number of FTF target countries from the existing 12 up to 20 to better reflect FTF's ambitious goals. The interagency working group held eight consultations with USG stakeholders in Washington and at post, as well as external partners across the NGO community, private sector, and research and academic institutions. We incorporated stakeholder feedback, which resulted in a highly evidenced-based approach to selecting new target countries. Following stakeholder consultations, we identified more than 30 quantitative and qualitative indicators in line with the Global Food Security Act (GFSA) on need and opportunity for achieving the USG's global food security goals.

Additionally, we incorporated an analysis of the vulnerability of countries to the global food security impacts of Putin's war on Ukraine. The FTF interagency finalized the indicators and collected third-party data, as well as more context-specific, qualitative data from the interagency at post to better inform our decision making. Ultimately, this resulted in a list of eight new countries with the greatest level of need and the highest potential for achieving the USG's global food security goals. We received agreement and approval from all 12 agencies and departments, as well as USAID Administrator Power as the Feed the Future Global Coordinator and the National Security Council (NSC). During the 2022 G7 Leaders' Summit in Germany, President Biden formally announced that the United States expanded FTF to eight new countries, including those vulnerable to the effects of Russia's invasion of Ukraine. The new target countries are the Democratic Republic of the Congo, Liberia, Madagascar, Malawi, Mozambique, Rwanda, Tanzania, and Zambia. FTF focus countries will be our closest partners in harnessing the power of agriculture to drive economic growth and transform food systems, even as FTF programming in 40+ countries continue to improve people's lives around the world.

Working Group on the Global Food Security Crisis Resulting from Putin's War on Ukraine

Following Russia's invasion of Ukraine in February 2022, the FTF interagency quickly recognized the ripple effects of the invasion on global food security and malnutrition. In parallel

to NSC-led interagency meetings, USAID also ramped up interagency engagement to coordinate the U.S. government's response to the growing food security crisis across diplomatic, humanitarian, development, financial, and trade/export tracks. These efforts included weekly FTF lead meetings as well as biweekly senior-level FTF interagency meetings. The interagency drafted the USG Near-Term Plan to Address Global Food Security, which covered humanitarian and development plans, diplomatic and donor engagement strategies, and economic plans. In May 2022, USAID Administrator Power chaired the first-ever Secretary-level FTF meeting to discuss the USG response and how to use each department/agency's strengths, pivot programming, and coordinate humanitarian and long-term development food assistance. This interagency working group also collaborated on USG policy and messaging at the 2022 G7 and G20 Summits, the second Ukraine supplemental, the FTF country expansion and announcement, and the U.S.-led Global Food Security Summit at the 2022 UN General Assembly.

Working Group on Monitoring, Evaluation, and Learning (MEL)

The interagency MEL working group, co-chaired by USAID and USDA and formed in 2016, now meets periodically as a community of practice after finishing foundational monitoring and evaluation updates. In FY 2022, the MEL group reviewed and submitted feedback on new proposed indicators that support the revised results framework, which emerged from the Global Food Security Strategy refresh. Moving forward, the interagency MEL working group will help operationalize the use of new indicators in our respective agencies and will review each GFSS Country Plan to ensure MEL activities are described appropriately.

Working Group on Research

USAID and USDA co-lead the FTF Interagency Working Group on Research (IWGR). Established in 2019, the group supports implementation of the Global Food Security Research Strategy (GFSRS) and aims to better "align and leverage broader U.S. strategies and investments in science and technology, agricultural research, and extension" and "harness science, technology, and innovation, including the research and extension activities supported by relevant Federal Departments and Agencies (GFSS, 2016)." Core members include representatives from across USG science agencies and departments. The FTF IWGR works through recurring and special-topic meetings, engaging the USG science community on areas of interest in support of the GFSRS.

During FY 2022, after a series of consultations with FTF research stakeholders, including USG staff, congressional staff, the private sector, implementing partners, NGOs, and research and academic institutions, the IWGR updated the 2022-2026 GFSRS. The updated GFSRS incorporated new and elevated priority areas from the GFSS, as well as research-specific themes: climate-smart agricultural innovation, nutrition and food systems, and genetic improvement of crops and livestock. The GFSRS outlines the critical role research plays in sustaining and improving agricultural productivity, profitability, and resilience of food systems and agriculture,

enabling affordable, nutritious diets for a well-nourished population; meeting the challenge of climate change; and advancing DEIA and institutional strength and capacity.

Food Security Working Group Under PREPARE

USAID and the State Department worked with agency representatives from FTF on a time-bound two-month working group to develop the food security component of the PREPARE Action Plan. The White House leads this Action Plan, which guides the work of 18 federal departments and agencies on international climate adaptation for the next three years. This includes work to support affected communities to integrate climate information into agricultural practices to get ahead of slow-and fast-onset climate events, identify sources of climate finance in support of food security objectives, and link this work to National Adaptation Plans of country governments. PREPARE also drew on lessons learned from FTF as an interagency coordination structure to design its way of working and early-stage efforts to build the MEL system for PREPARE.

USG Global Nutrition Coordination Plan

The Global Nutrition Coordination Plan (GNCP) serves as the main interagency platform connecting different agencies and departments to coordinate and collaborate across the USG's global nutrition efforts and investments. The GNCP members comprise many of the same agencies and subject matter experts from across the USG as the GFSS. The second Plan (2021-2026) was launched in November 2021, ahead of the Nutrition for Growth Summit in December 2021, and constituted one of the U.S. government's key deliverables at the Summit. In a clear demonstration of the U.S. government's ongoing dedication to accelerating progress toward shared nutrition goals, the second plan was endorsed by the Secretaries of State, Agriculture, and Health and Human Services, the USAID Administrator, and the Chief Executive Officers of the MCC, the U.S. International Development Finance Corporation, and the Peace Corps. Guided by a stock-taking analysis of the inaugural five-year Global Nutrition Coordination Plan and an extensive interagency drafting process, the second Plan builds on the strengths of the first and adds mechanisms to engage higher-level decision makers, including a new group of Senior Nutrition Champions, to elevate challenges and solutions in global nutrition. The updated structure under the second Plan will enhance opportunities for communication and collaboration and reorganize sub-working groups to respond to emerging and growing threats. Importantly, a revised set of expected results will frame an approach for tracking the outcomes of this interagency platform. A five-year summary of the inaugural Plan (2016-2021) was published in August 2022.

Working Group on Food Safety

In 2016, a group of subject matter experts from USAID, USDA, and the U.S. Food and Drug Administration (FDA) within the U.S. Department of Health and Human Services (HHS) established a USG interagency Food Safety Working Group (FSWG) to further the global effort to address food safety, within the scope of USAID's Multi-Sectoral Nutrition Strategy and the USG's GNCP. Safe food supplies support national economies and trade and tourism, contribute

to food and nutrition security, and underpin sustainable development. The FSWG promotes nutrition, food security, and trade via a platform for the interagency exchange of food safety information and experiences and by exploring opportunities for collaboration with U.S. Embassies and USAID Missions.

This year, the FSWG has strengthened coordination and communication among several USG departments and agencies including USAID, HHS/FDA, USDA (Food Safety and Inspection Service, Foreign Agriculture Service, and Animal and Plant Health Inspection Service), state, MCC, and the U.S. Codex Office by hosting technical presentations and planning to co-host a webinar for the African Union Year of Nutrition. This has improved common understanding of food–safety–related programming, increased collaboration and greater effectiveness of food safety–related activities and investments and leveraged existing interagency resources to better support USG posts globally.

Working Group on Communications and Congressional Affairs

The Interagency Working Group on Communications and Congressional Affairs brings together communicators from the FTF agencies and departments. The Working Group promotes consistent messaging and contributes interagency accomplishments and stories to FTF's platforms for amplification. Monthly updates circulated among the Working Group, quarterly check-ins with each agency, and quarterly roundtables with external communicators keep the USG interagency connected on current priorities, projects, and events. Accomplishments from this past year include the following:

- **FTF Newsletter:** The *Feed the Future Newsletter* engages the broader stakeholder community with stories on the USG's efforts and progress. In FY 2022, USG interagency partners contributed to a total of eight newsletters and distributed to a list of more than 7,200 readers, with themes such as the impact of Russia's invasion of Ukraine on global food security, nutrition, research and innovation, and empowering women and girls.
- **Strategic Planning:** The Working Group met quarterly to share updates, events, and campaigns; spread communications materials with the interagency on the new eight FTF target countries; developed a joint FTF fact sheet on the global food security crisis; and developed the 2022 Progress Snapshot.

Appendix B: Department and Agency Updates Under the Global Food Security Strategy (GFSS)

This appendix provides the sixth annual update of the USG federal department- and agency-specific progress in carrying out the GFSS and the Agency implementation plans provided in Annex 1 of the *Strategy*. Led by USAID, the FTF interagency consists of USG partners* that provide a range of financing, technical assistance, and research to support FTF countries in addressing issues of food security, resilience, nutrition, and water security. A detailed overview of each agency and department's work, their partners, and targeted beneficiaries can be found in previous GFSS Implementation Reports.

* Note: While the Office of the United States Trade Representative (USTR) is not an implementing agency for the GFSS, it participates and collaborates in the Washington-based interagency working groups.

United States Agency for International Development (USAID)

Over the last year, USAID strengthened resilient food systems that deliver affordable, safe, and nutritious foods and supported inclusive economic growth in partner countries. USAID's Leadership Councils on Resilience, Water, Nutrition, and Climate advanced GFSS priorities in several ways, including through budget recommendations and cross-agency technical expertise. In addition, FTF expanded the number of target countries from 12 to 20, with the addition of Democratic Republic of the Congo, Liberia, Madagascar, Malawi, Mozambique, Rwanda, Tanzania, and Zambia. USAID's efforts include the following highlights:

- Resilience: In addition to supporting the 15 Resilience Focus Countries, USAID began revising its 2012 *Policy on Building Resilience to Recurrent Crisis* with a new policy anticipated in late 2023. USAID dedicates up to \$700 million a year in resilience investments, primarily through FTF, to help vulnerable communities better manage recurrent shocks without compromising their future well-being. FTF's Resilience Challenge Fund aims to reduce humanitarian assistance in areas affected by recurrent crises by providing select USAID Missions with additional resources to expand locally-driven, innovative, and effective actions that build resilience. USAID works with the private sector, partner governments, and other donors to leverage resources that expand impact. Over the past year, the Resilience Challenge Fund has invested in a range of critically important areas, including supporting youth-led enterprises in Malawi to recover from recurrent shocks and managing a fund that incentivizes financial institutions to make loans to small businesses located in northern areas of Kenya that face recurrent crises.
- **Agriculture-Led Growth:** In FY 2022, the Interagency Working Group on Research (IWGR), co-led by USAID and USDA, led an extensive review and consultative

process to update the Global Food Security Research Strategy (GFSRS). As described previously, this revised strategy marks a significant achievement and will guide research going forward from 2022-2026. To continue advancing the benefits of research, USAID applied best practices from the private sector to scale FTF-funded innovations. To reinforce best practices in facilitating widespread adoption and PLC management, USAID launched its Innovation to Impact activity. In FY 2022, USAID's Center for Agriculture-led Growth continued integrating these centrally managed programs in research coordination hubs in West Africa, in partnership with the West and Central African Council for Agricultural Research and Development (CORAF), and in Cambodia, in partnership with the Royal University of Agriculture. A new research coordination hub, CEMARCH (Center of Excellence on Mitigation, Adaptation and Resilience to Climate Change), in Haiti will launch in FY 2023. In addition, USAID worked with the Bill & Melinda Gates Foundation, Rockefeller Foundation, UK FCDO, and BMZ Germany on the Partnership for Inclusive Agriculture Transformation in Africa (PIATA) implemented by AGRA to catalyze agriculture development in Sub-Saharan Africa. Within four years (2017-2021), AGRA reached more than ten million farmers through village-based agents (VBAs) to increase access to inputs and extension services, which is a testament to their capacity and African networks. Further, AGRA supported the development of ten policies to strengthen food trade. These policies have helped improve food security, increase trade, and deliver more competitive prices. During the process, AGRA helped reduce the time it takes to develop and implement policy from eight to ten years to three to five years. USAID engaged the DFC to leverage financing in the agriculture sector that is perceived as high-risk and began examining how to best mitigate the impact of climate change on agriculture. FTF's Market Systems and Partnerships Activity advanced field programming and practice in private-sector engagement and market systems development, standing up partnerships with local businesses in southern Africa and Cambodia, supporting commercial scaling of research portfolio innovations, assessing market systems resilience across the Nepal FTF portfolio, and providing new tools and guidance for field programming.

• Nutrition: USAID commenced roll-out of its "refreshed" list of Nutrition Priority and Strategic Support Countries to better align resources, provide enhanced support and investment across Bureaus, and focus on accountability and learning. This included implementing a phased approach for the development of Multi-Sectoral Nutrition Country Plans, a process that will continue into FY 2023. In addition, USAID led an interagency process to develop the USG Global Nutrition Coordination Plan (GNCP) 2.0 and elevated the role of food systems for healthy diets within the GFSS. In addition, USAID launched a training on nutrition fundamentals targeted for staff at post to equip them with updated evidence and programming examples of addressing nutrition across sectors. USAID's Center for Nutrition continued to invest

in developing tools, technical briefs, and testing metrics and models that expand FTF's nutrition impact. For example, USAID is collaborating with DFC to develop nutrition-lens investment metrics to support nutrition financing under the Global Nutrition Financing Alliance.

• Water, Sanitation, and Hygiene (WASH): To enhance high-impact programming in the field, USAID developed and published three additional technical briefs for both USAID Missions and implementing partners on topics ranging from water resources management to sustainable water and sanitation services for health care facilities. Twelve briefs in the series are now publicly available to enhance understanding of USAID's preferred systems approach to sustainable service delivery, which is critically important to productive economies and well-nourished communities. An additional technical brief on climate-resilient, low-emissions water security and sanitation is forthcoming.

Across these areas, USAID continued to ensure that programming achieves crosscutting results, particularly regarding climate change adaptation and mitigation, private-sector partnerships, women's empowerment, youth empowerment and livelihoods, policymaking, digital technologies, local capacity development, and research. Key USAID efforts over the last year included:

- The Feed the Future Advancing Women's Empowerment (AWE) Activity developed learning resources on inclusive agricultural market systems targeted at USAID Missions in the Latin America and Caribbean region and developed a toolkit to help address gender-based violence in agriculture and market systems programs.
- The Youth Power 2 Learning and Evaluation RFS Youth in Agri-food Systems Activity developed and implemented the Youth Shocks and Stressors Rapid Assessment and engaged dozens of youths around the world in discussions on their experiences of the impacts of Russia's war in Ukraine to inform programming.
- The Alliance for Inclusive and Nutritious Food Processing (AINFP) mobilized technical assistance from seven global companies to support small and growing food companies in Africa, with an emphasis on firms led or owned by women. In the first half of FY 2022, AINFP provided customized technical assistance to 34 female-owned or -led processors, and 49 women attended training in food safety in Kenya, Ethiopia, Malawi, Tanzania, and Zambia. In addition, 163 out of 185 (88 percent) of newly employed or internship placement participants were youth.

- The Feed the Future Innovation Lab for Crop Improvement (ILCI) supported plant breeding programs' attention to gender equality by conducting research to identify and capture crop trait preferences and social differences among producers and other value chain participants to inform breeding priorities, with a specific focus on gender-inclusive value chain mapping. ILCI also initiated a study of women and youth inclusion in seed systems.
- The Feed the Future Innovation Lab for Fish in Bangladesh conducted research on rohu carp aquaculture that confirmed youths' more rapid uptake of technology than older adults and supports youth involvement in sustainable fisheries.
- Additional Youth-Focused Work: USAID/Bangladesh continued to fund the COMPASS Activity implemented by the USDA Forest Service through a locally-led approach that engages youth in a Youth Conservation Corps to support their employment and environmental stewardship. It also funded the Livestock and Nutrition Activity through which youth access capacity development and market linkage opportunities to sustainably advance their livestock businesses. USAID Rwanda's new Employment and Entrepreneurship Activity also continued its focus on youth, women, and persons with disabilities and seeks to increase jobs and build workforce capacity in the food and agriculture sector.
- The Gender Responsive Agriculture Systems Policy (GRASP) Fellowship Activity is a career accelerator program offering African women opportunities to catalyze the design and implementation of gender-responsive agricultural policies across Africa. An open call for GRASP policy fellowship applications was released in Malawi, Zambia, Nigeria, Uganda, Rwanda, Kenya, and Ghana.
- The Women's Empowerment in Agriculture Index (WEAI) activity developed an instructional guide and decision tree to allow WEAI users to identify the most appropriate version of the WEAI to use for their monitoring purposes. As part of a global partnership, the women's empowerment metric for national statistical systems continued to be tested and resources materials developed as part of the 50x2030 Initiative to Close the Agricultural Data Gap.
- **Development Diplomacy:** USAID provided strong global leadership in FY 2022 by contributing to development of negotiation of both the Committee on World Food Security (CFS) Voluntary Guidelines on Gender Equality and Women's and Girls' Empowerment in the Context of Food Security and Nutrition and the CFS Policy Recommendations on Promoting Youth Engagement and Employment in Agriculture and Food Systems for Food Security and Nutrition. USAID also continued its strategic partnership in Generation Africa, as part of the Partnership

for Inclusive Agricultural Transformation in Africa (PIATA), which piloted an Ecosystems Development Framework for youth agripreneurship in Senegal and Rwanda.

USAID continued to facilitate learning and generate evidence on the impact of digital technologies on food security. Through the Digital Frontiers activity, USAID co-funded the 2022 ICTforAg conference with GIZ, continued to support the Digital Agri Hub, jointly funded by the Bill and Melinda Gates Foundation and FCDO, conducted digital agriculture ecosystem assessments for USAID Missions in Haiti, Honduras, Malawi, Mali, Tajikistan, and Uganda, and launched two studies related to farmer-centric data governance and the implications of artificial intelligence and automation on inclusive economic growth in agri-food systems. Many FTFILs incorporated digital tools into their work, such as the Livestock Systems Innovation Lab's development of a livestock feeding support app now adopted by small-dairy producers in Nepal to formulate rations that increase milk production by 15 percent. In addition, through the PIATA and Generation Africa, USAID engaged the governments of 11 focus countries and partners across the continent to strengthen government capacity, build an enabling policy environment, enhance mutual accountability, and encourage young people's entrepreneurship on the continent. USAID also launched a Youth in Agri-food Systems Learning Activity to learn how to bolster youth engagement in food systems.

Finally, USAID continued to invest in research innovations in FY 2022. As described previously in this report, the Sorghum and Millet Innovation Lab's deployed a new sorghum variety, called "Merera." In addition, the Soybean Value Chain Research Innovation Lab made important advances over the last year in addressing red leaf blotch (RLB), a serious fungal disease of soybeans. Finally, both the Feed the Future Innovation Lab for Fish in Bangladesh and Feed the Future Innovation Lab for Crop Improvement (ILCI) made important advances in agricultural research while also gleaning important findings about gender and youth dimensions. In general, FTFILs continued to be critical resources for addressing the greatest challenges in regionally important crop varieties and building partner capacity to use and scale these innovations.

Lessons Learned

Over the past year of GFSS implementation, USAID drew lessons learned from its programming and shared these insights with FTF partners through conferences and workshops, webinars, and publications. Overall, USAID found that FTF country commitment and capacity remain key to successfully implementing the GFSS—in particular, women's empowerment is critical to unlocking this progress, private-sector participation provides the necessary engine for growth, and monitoring and evaluation must be carried out continuously to ensure programs are adapting to reflect the most recent evidence. Notable lessons learned include:

• Strategic approaches and improved tools yield positive impacts on food security and other target outcomes in FTF countries: In 2022, USAID's innovative

portfolio-level, quasi-experimental impact evaluation of the FTF program in Bangladesh found significant, positive, attributable impacts on food security, empowerment, crop diversification, crop yield, and child iron intake.

- FTF is well-positioned to deal with the shocks, stressors, and volatility of the COVID-19 pandemic: FTF showed continued ability to reach and benefit FTF target populations, even in the face of COVID-19. We saw a rapid increase in support for FTF participants in FY 2021—in some cases, nearly doubling results of critical metrics, such as the amount of financing accessed. This highlights our quick pivots in responding to the pandemic and the surge of support we offered. It is one indication that FTF was well-positioned to deal with the shocks, stressors, and volatility of the pandemic. Some key results illustrating this ability to respond include:
 - In FTF target countries, the value of sales for smallholder producers receiving USG assistance increased by over 68 percent from FY 2020, totaling more than \$1.34 billion in FY 2021.
 - In FY 2021, the value of agriculture-related financing accessed as a result of USG assistance in FTF target countries increased by over 50 percent from the year prior.
 - The number of individuals in the agri-food system applying improved management practices or technologies with USG assistance also increased by more than 50 percent in FTF target countries compared to FY 2020, with over 3.8 million individuals applying improved practices or technologies in FTF target countries FY 2021.
- FTF activities showed strong adaptations to the COVID-19 pandemic: USAID conducted a systematic qualitative analysis and synthesis of implementing partner narrative reporting to explore what partners and Operating Units reported as impacts of the pandemic and how they adapted or pivoted in response. The key takeaways were:
 - The impacts of the pandemic were mostly associated with the responses of host-country governments, changes in implementing mechanism operations, and delays in activity implementation.
 - Most mechanisms responded by adopting a digital means for conducting business.
 - Many mechanisms also reprogrammed current activities by expanding or altering services, making data-driven decisions, and adjusting operations.
 - Many mechanisms used rapid-assessment surveys to make data-driven decisions in the face of pandemic-related challenges.
 - The agriculture-led growth sector's mitigation and recovery approaches focused on market strategies to enhance collaboration and connectedness among farmers, producers, consumers, and distributors. This included heavy

reliance on information and communication technologies and virtual platforms, and strengthened collaboration with local and national governments.

- Investing in agriculture research yields sizable economic impacts: A metaanalysis of impact case studies of U.S. investment in agriculture research demonstrates the median net present value of economic impacts is estimated at \$8.4 billion compared to a cumulative investment of \$1.24 billion. About four-fifths of these economic benefits accrued to individuals with incomes under \$5.50/day and about 29 percent to those in extreme poverty.
- Extension services to women reduces the negative impacts of climate change on agricultural performance: The Gender Climate and Nutrition Integration Initiative (GCAN) conducted research showing that providing extension services to women reduces the negative impacts of climate change on agricultural performance. These findings add to the growing evidence on the gendered dimensions of resilience, which were summarized in a new GCAN evidence brief.

U.S. African Development Foundation (USADF)

During FY 2021, USADF awarded 177 grants—totaling more than \$15 million (\$15,353,299.00)—designed and aligned with the FTF whole-of-government approach to combating food insecurity and malnutrition. As of August 2022, with FY 2022 obligations still in progress, USADF estimated a total of \$2.9 million in food security spending. These projects represent agriculture-led growth initiatives and activities designed to increase incomes and yields of small-scale producers across the agricultural value chain. USADF awarded \$233,053 to Agali Farmers Cooperative Society Limited in rural Uganda to fund a three-year project targeting the local rice production industry. The grant will increase production and productivity of rice through increasing members' access to extension services and high-quality rice seeds, as well as improve record keeping practices and cooperative governance. With a view towards bringing local products and production closer to the local population, USADF has awarded BIOSENE SARL in Dakar, Senegal, a \$50,000 grant through 2023. BIOSENE SARL is an established local company processing local traditional agricultural products in Senegal. The company sources millet, fonio, baobab fruits, hibiscus, and other traditional products from groups engaging more than 6,000 farmers and semi-finished products producers.

Lessons Learned

While USADF has continued to operate in "pandemic" mode, the agency managed to award the most grants ever in one fiscal year—both in the food security sector and across the broader grant portfolio. As in 2021, the COVID-19 pandemic forced USADF and many other USG agencies to reset spending and focus on how best and where to devote scarce resources in the face of a global crisis. During the pandemic, USADF learned that applying technology and supporting businesses

to shift to COVID-19-related activities was equally as helpful to food-producing grantees as operation- and business-expansion funds.

U.S. International Development Finance Corporation (DFC)

DFC's primary mandate is to deploy development finance to private enterprises—particularly in low-income countries (LICs) and lower-middle income countries (LMICs)—to further the USG's strategic goals and priorities. This year saw an acute increase in the need for capital in LICs and LMICs due to continued disruptions resulting from COVID-19 and the Russian invasion of Ukraine in February 2022. Prices of fertilizer and fuel, crucial inputs in the production of agricultural commodities, have skyrocketed. This had a devastating impact on farmers and SMEs involved in the local production, processing, and moving of food products in developing countries. DFC has responded to these crises by sharply increasing the amount of capital deployed to agricultural companies. Specifically, DFC sees financing of fertilizer plant expansion and support for new green fertilizer technologies and investments in fertilizer export infrastructure, including shipping and logistics, as key to improving global food security. In FY 2021, DFC committed \$358 million of capital into agricultural producers, processors, and providers of credit to small and emerging farmers, which represented a 49 percent increase over the prior year. In FY 2022, DFC committed \$786 million of investments in similar private-sector partners in furtherance of FTF's goals. These activities required \$36.7 million in appropriated funds in FY 2021 and \$285 million of appropriated funds in FY 2022.

Lessons Learned

The ongoing need for better integration of programs and initiatives between FTF agencies was highlighted last year, and DFC has focused FY 2022 on deepening its partnership with the interagency. The FTF Ag Finance Unit at DFC, in particular, has worked to strengthen its collaboration with USAID Bureaus. One example of this deepening collaboration is a partnership entered between USAID's Resilience and Food Security Bureau and DFC to cooperate on innovative financing solutions to mobilize at least \$100 million to reduce global malnutrition by investing in multi-sectoral approaches and encouraging private-sector engagement in nutrition. This partnership, termed Global Nutrition Financing Alliance, was created by way of an MoU in September 2021 and the first investment to be undertaken under this partnership was committed in July 2022.

U.S. Geological Survey (USGS)

Over the past year, USGS FEWS NET efforts focused on improving access to, and usability of, its early-warning datasets via the online Early Warning eXplorer (EWX) tool, including the following:

• **Provided training to food security analysts** and USAID decision makers on use of FEWS NET remote-sensing products and online tools for early-warning applications;

- **Updated our satellite-based vegetation index** to provide improved information on crop conditions; products are released on a five-day timestep, instead of the former ten-day timestep;
- Released updated mapping units (livelihood zones intersected with administrative units) for several countries in Africa;
- Released a new, enhanced version of the water point viewer with improved rainfall and evapotranspiration inputs, with data going back an additional 20 years to 1981;
- Released a South America data portal comprising FEWS NET remote-sensing products for Colombia and Venezuela to support extended reporting responsibilities of the food security analysts; and
- Updated the data/graphics download tool with more options for defining areas of interest.

In addition, USGS FEWS NET supported the following activities:

- Provided custom analysis of vegetation index ranking for the Greater Horn of Africa (1st *dekad* of December 2021 and 3rd *dekad* of April 2022) and Madagascar (1st *dekad* of January 2022);
- **Developed an enhanced flood monitoring capacity**, and provided regular (weekly and monthly) flood-monitoring products for Africa and Afghanistan;
- Released virtual dataset functionality allowing users to transparently interact with preliminary, final, and forecast data (for anomalies and time series);
- Supported the Ethiopia Ministry of Agriculture to implement a local version of the water point viewer for pastoral regions;
- Collaborated with the University of California, Santa Barbara (UCSB) to provide near-real-time current-season yield and production estimates for the October-December 2021 and March-May 2022 rainy seasons in Kenya and Somalia; and
- Partnered with UCSB and the University of Maryland to develop extended agricultural outlooks, providing projections in November 2021 of crop conditions for the East Africa 2022 March-May growing season.

Department of State (State)

In FY 2022, State's leadership on global food security issues gained new momentum with the swearing-in of Dr. Cary Fowler as Special Envoy for Global Food Security on April 25, 2022. In

this role, Dr. Fowler moved quickly to lead Department of State actions to advance the *Global Food Security Strategy*, including through new initiatives supporting the FTF goal of sustainably reducing hunger and malnutrition; driving advancement in sustainable and climate-smart food systems, practices, and technologies; and promoting U.S. economic prosperity and national security.

The Department launched a multifaceted strategy to respond to historically high global food prices, exacerbated by Russia's attack on Ukraine. Secretary Blinken hosted a Ministerial Call to Action on Global Food Security on May 18, 2022, which advanced a Roadmap outlining actions to address the crisis, now endorsed by more than 100 countries. Secretary Blinken participated in a follow-on ministerial hosted by Germany in June and urged G20 countries on the issue at a G20 Foreign Ministerial in July. Senior Department of State principals extensively engaged other donors to press for additional commitments for humanitarian and food security assistance. At the G7 Summit in June 2022, the G7 announced \$4.5 billion in additional assistance commitments, of which the United States committed \$2.76 billion, as part of the Supplemental passed by Congress and signed by the President in May.

The Department used funding in the May 2022 Supplemental to advance multilateral efforts to protect livelihoods and nutrition and help vulnerable countries build their resilience to shocks, including food price volatility, supply chain issues, climate impacts, and other stresses beyond the immediate term. Specifically, in working with Congress, the Department led efforts for the United States to provide \$104 million to the following efforts:

- Support for the International Fund for Agricultural Development's (IFAD) Crisis Response Initiative (CRI) to help protect livelihoods and build resilience in rural communities
- Support for the Africa Adaptation Initiative (AAI) to develop a pipeline of bankable projects in Africa, to leverage private equity.
- Support for the Africa Risk Capacity (ARC) and Africa Disaster Risk Financing Programme (ADRiFi) to help African governments respond to food system shocks by increasing access to risk insurance products.
- A fertilizer efficiency and innovation program to enhance the efficiency of fertilizer use in countries where fertilizer tends to be overapplied.
- Support for the UN Food and Agriculture Organization (FAO) to fund soil mapping spanning multiple countries to provide information allowing for wiser water usage, greater fertilizer conservation, and improved climate-resilience impacts.

The Department of State, with the Department of Commerce, coordinated the United States' endorsement of the Aquatic / Blue Food Coalition and its declaration. The Coalition is a multi-stakeholder initiative to realize the full potential of sustainable blue, or aquatic, foods—such as fish, shellfish, aquatic plants and algae, captured or cultivated in freshwater or marine

ecosystems—to help end malnutrition and build nature-positive, equitable, and resilient food systems.

Lessons Learned

Russia's invasion of Ukraine underscored yet again the fragility of global food systems and the importance of building resiliency. Historically high fertilizer prices also highlighted the interconnections between fertilizer and food security and the need to diversify production and enhance the efficiency of fertilizer use. There is an urgent need for other donors, including new donors, private entities, and high-net-worth individuals, to contribute increased funding to support both emergency humanitarian assistance and development assistance.

Millennial Challenge Corporation (MCC)

MCC continued its commitment to FTF through food security–related investments in two FTF target countries: Niger and Senegal.

• MCC's Niger Compact concluded its fourth year of implementation, while an exceptional one-year extension to the typical five-year compact was granted to extend the end date to Jan. 26, 2024, in recognition of the programmatic impacts caused by the COVID-19 pandemic. While MCC continues to support infrastructure for the agricultural sector such as roads and irrigation, the past year demonstrated the positive effects of agricultural policy reforms. In Niger, MCC-supported reforms that bar the state-owned enterprise for agricultural inputs from participating in the fertilizer sector, resulted in a more than tripling of the fertilizers available to farmers. In 2021, this leapt from 25,000MT on average before the compact to more than 90,000MT. To ensure that farmers who need but are unable to afford fertilizer have access, MCC supported the Government of Niger in creating the Fertilizer Common Fund, which provided subsidized vouchers to over 20,000 farmers while allowing the private sector to compete. MCC has also concluded its grants program, implemented by USADF, with more than \$7 million awarded to firms to support agricultural storage, processing, and marketing investments. These grants were highly inclusive, with more than 40 percent going to women's groups, addressing food security by decreasing post-harvest losses, and increasing food availability during times of shortages, while also promoting economic development and gender equality. The compact has also included groundwater analysis to better understand what resources existed, with the hope that people in rural communities could have more productive use of land and agriculture, increase their incomes, and achieve greater food security. In February 2019, MCA-Niger—the in-country implementing entity contracted Radar Technologies International (RTI), in partnership with the University of Nevada Las Vegas, to perform remote sensing to map groundwater aguifers in a 260,000 km2 region in the southwestern agricultural belt—an area almost twice the size of New York State. This groundbreaking discovery qualifies Niger as the most groundwater-rich country in the Sahel region.

• MCC's Senegal Power Compact entered into force in September 2021. The \$57.3 million Increasing Access to Electricity in Rural and Peri-Urban Areas Project will extend the electrical grid in selected areas in Senegal's south and center regions that have high economic potential but low connection rates. The Project will also support electricity adoption and facilitate the market for electric equipment and appliances including irrigation and agricultural processing of rice, cashew, millet, and bananas. Better access to electricity is anticipated to increase land values, underlining the importance of secure land rights to food security and stronger rural economies. This project envisions opportunities for collaboration with FTF and other donors that are providing complementary support to agricultural value chains in MCC's areas of assistance.

Lessons Learned

In FY 2022, MCC engaged the International Water Management Institute (IWMI) to evaluate and provide recommendations for its irrigation portfolio. To date, MCC completed 24 performance evaluations and 12 impact evaluations, many involving irrigation investments. This type of meta-analysis is intended to create benefits beyond MCC and provide the global community with best practices as well as a learning agenda for improving the effectiveness of donors' irrigation programs.

Inter-American Foundation (IAF)

Over the past year, the Inter-American Foundation (IAF) contributed to Feed the Future by providing grants directly to grassroots and community-led organizations in underserved communities in Latin America and the Caribbean to address food insecurity, increase agricultural adaptability, improve disaster resilience, and manage natural resources responsibly. This included training for smallholder farmers to improve yields, storage, and processing, and to diversify production. As of Sept. 30, 2022, the IAF's total active portfolio of 200 food security-related grants valued at \$151.5 million (\$68 million IAF investment complemented by \$83.5 million in grantee contributions) represented half of IAF total active grants and directly benefited more than 181,500 people in 27 countries. The IAF provided \$13.6 million in new FY 2022 funding related to food security.

Lessons Learned

- Make use of low-cost and accessible technology. IAF grantees are increasingly using radio to disseminate information widely on sustainable farming practices and nutrition, mobile apps to improve their agricultural management and monitor supply and demand, and social media for digital marketing to directly reach customers and ensure fairer prices.
- Tackle food security comprehensively. Reducing hunger and addressing food security as a system by working with local organizations that simultaneously make food supply

more available for consumption or sale, accessible through local markets and distribution channels, and adequate in local communities through diversifying diets and storing reserves for times of crisis.

- **Produce organic fertilizer on-site.** Local, on-site production of biobased fertilizers and other inputs lowers the costs of production, may reduce harm to soil and water, and can improve crop yields over the long term. Through sales to nearby farmers' groups who seek accessibly priced fertilizer, it also generates income for producers.
- Provide opportunities for a sustainable livelihood in farming as an alternative to
 migration. Engaging youth in sustainable agriculture while they participate in leadership
 programs provides them with livelihoods and strengthens their ties to their local
 community, which can make it possible for youth to stay instead of migrating.
- Build food security and resilient use of natural resources through strong social capital and social networks. Where there are no formal supply chains and markets, farmer groups are organizing and tapping their networks to promote and sell products and link with consumers. Similarly, improving the leadership, convening power, social capital, and financial management skills of community-based institutions governing natural resources, such as community water boards or marine conservation committees, has led to the faster resolution of problems and protection of vital resources for the long term.

Office of the United States Trade Representative (USTR)

In FY 2022, USTR continued its work to develop and maintain open markets globally through its trade initiatives and participation in international organizations. USTR played a leading role at the World Trade Organization (WTO), including in WTO committees on agriculture, import licensing, sanitary and phytosanitary measures (SPS), and technical barriers to trade (TBT). Leading up to the 12th WTO Ministerial, the United States co-submitted with 24 other WTO Members the "Joint Statement on Open and Predictable Trade in Agricultural and Food Products" and independently submitted a statement entitled "Actions by the United States of America in Support of Global Food Security." At the Ministerial, trade leaders ultimately agreed to several deliverables, including the Ministerial Declaration on the Emergency Response to Food Insecurity, and a Ministerial Decision to exempt the WFP's humanitarian food purchases from export restrictions. Beyond these activities, USTR continued to promote trade facilitation and support multiple trade initiatives and U.S. preference programs. In addition, USTR conducts direct bilateral engagement with other country governments through free trade agreements, and trade and investment framework agreements.

U.S. Department of the Treasury (Treasury)

In FY 2022, Treasury continued its close engagement with, and leadership in, the International Fund for Agricultural Development (IFAD) and the Global Agriculture and Food Security

Program (GAFSP). In addition, Treasury encouraged the international financial institutions (IFIs), including the International Monetary Fund (IMF), the World Bank (WB), and regional multilateral development banks (MDBs), to surge and step up their response to the food security crisis. Treasury also called for the IFIs to develop the *IFI Action Plan to Address Food Insecurity*, which was welcomed by G7 Finance Ministers and which the IFIs are currently implementing. In FY 2022, Treasury contributed \$43 million of its \$129 million pledge to IFAD's 12th Replenishment of Resources, \$500 million to a European Bank for Reconstruction and Development (EBRD) fund for food and energy security programming, and \$155 million to GAFSP that supported a recent call for proposals. Treasury also stepped up its leadership role in GAFSP as Co-Chair of the Steering Committee, promoting a deepened and accelerated response to the global food insecurity crisis.

Lessons Learned

- Russia's war against Ukraine has exacerbated existing pressure on food security from conflict, climate change, and economic shocks from COVID-19, requiring a swift and robust response from the United States and international partners.
- The existing global food security and agriculture architecture, including the IFIs and GAFSP, is strong and well-placed to respond to the food security crisis. Institutions must coordinate with each other, in line with their expertise and comparative advantages, to maximize their collective impact.
- The international community should learn the lessons from the 2008 food price crisis, which are still applicable today. These include avoiding counterproductive policy responses, such as export restrictions and stockpiling, and tailoring fiscal responses to those most in need rather than employing blanket subsidies that are regressive and costly.

U.S. Peace Corps

In March 2022, fully two years after the initial global evacuation of all Volunteers, the Peace Corps began returning small numbers of Peace Corps Volunteers (PCVs) to host countries. By the end of June 2022, PCVs were serving in 19 countries. In FY 2023, Peace Corps plans to return Volunteers to the remaining countries where there are active programs. Despite the logistical and personal challenges related to the COVID-19 pandemic, Peace Corps program staff in 12 countries (Guatemala, Madagascar, Togo, Senegal, Cameroon, Nepal, Cambodia, Zambia, Benin, Uganda, Ghana, Ethiopia) organized and conducted both virtual and in-person training that reached over 1,300 agriculture/food security-related project stakeholders, including Ministry personnel, PCV counterparts, and community-level project participants. Agriculture and food security-related topics covered in the training included: bio-intensive gardening, integrated soil fertility management, improved staple crop varieties, post-harvest crop preservation and value-addition, nutrition, improved business practices, village savings and lending groups, and organizational development. Upon their return to service, PCVs are expected to follow up on the

staff-led training and continue to implement agriculture and food security activities alongside their host-country counterparts, to increase the availability, access to, and utilization of nutritious and safe foods.

Lessons Learned

Despite the absence of PCVs during much of FY 2022, Peace Corps program staff in host countries were successful in maintaining project stakeholder engagement and strengthening support for and impact in agriculture, food security, and nutrition by:

- Using available digital tools such as email, video conference calls, and texting to maintain regular contact with food security-related project implementation partners.
- Scheduling regular communications with project counterparts in host communities, community leaders, former host families, and project participants to assess their needs, discuss and plan in-time training opportunities, and to reconfirm the return of PCVs as soon as possible.
- Organizing and conducting timely counterpart and farmer training in a dozen countries, some with funding through agreements with their USAID Mission, to continue to provide technical assistance that will be followed up by PCVs once returned to these communities.
- Providing complementary training on COVID-19 mitigation measures including handwashing, social distancing and mask wearing, as well as the importance of getting vaccinated once available.

U.S. Department of Agriculture (USDA)

In FY 2022, USDA made several program and policy contributions to FTF and U.S. government global food security efforts, including in response to the global food and fertilizer price crisis. These include: co-leading the development of the new 2022-2026 Global Food Security Research Strategy (GFSRS), facilitating a historic \$670 million provision of international food assistance through the Bill Emerson Humanitarian Trust; providing \$150,000 in support to the G20's Agricultural Market Information System (AMIS); assisting the African Union Commission in developing continental food safety and plant health strategies and implementation of its commitments under the newly ratified African Continental Free Trade Agreement; renewing a MOU with the Alliance for a Green Revolution in Africa; signing a MOU with the Ministry of Agriculture of Ukraine and providing related high-level support and bilateral engagement; launching the global Sustainable Productivity Growth Coalition; and playing a leadership role in in the development of two key, global climate-smart agriculture initiatives: the Agricultural Innovation Mission for Climate and the President's Emergency Plan for Adaptation and Resilience. USDA's fellowship and exchange programs continued to disseminate information on the benefits of U.S. agriculture products, practices, and policies by

training fellows at U.S. institutions, while USDA continued to implement its international food assistance programs, and its USAID- and State Department-funded food security capacity building efforts. In FY 2022, USDA's Foreign Agricultural Service (FAS) provided funding of \$5.8 million in capacity building projects. FY 2022 funds provided by USAID for this purpose were \$26.6 million. USDA also maintains a state-of-the-art web-based GIS system called GADAS (Global Agricultural and Disaster Assessment System) that uses satellite imagery and remote-sensing data to assist in its agricultural estimates of global crop conditions and provides monthly estimates of area, yield, and production for 17 distinct commodities in over 160 countries around the world, including post-disaster assessments. In March 2022, USDA announced a \$250 million initiative to support additional fertilizer production for U.S. farmers to address rising costs, including the impact of international price hikes. Funds will be available through a new grant program that supports independent, innovative, and sustainable American fertilizer production.

Lessons Learned

USDA generates rigorous evidence to support program improvement in our international food assistance programs on a continuous basis. In FY 2022, several long-term evaluations and research projects have been completed, providing evidence and learning that will be applied at the project and program levels to ongoing and future work. An impact evaluation focused on how school feeding projects affected literacy rates in Mozambique was completed in summer 2022. This impact evaluation generated strong evidence that school meals in combination with education-strengthening activities can improve literacy levels in primary school-aged children despite challenges faced in the ongoing COVID-19 pandemic.

A research project led by Mississippi State University also completed in summer 2022 provided evidence to help answer three priority questions in the McGovern-Dole Learning Agenda. The research reflects McGovern-Dole projects implemented in Africa, and the three questions focus on the types and characteristics of successful partnerships to support school feeding, the impacts of local food procurement models, and on the relationship between educational outcomes and nutritious school meals in primary schools. Finally, an impact evaluation on the poultry sector in Ghana reflects the work of two Food for Progress projects and provides evidence of what works in capacity-building activities with farms of varying sizes and across differing components of the poultry sector.

U.S. Department of Commerce (Commerce)

In FY 2022, two Bureaus within the U.S. Department of Commerce—the National Oceanic and Atmospheric Administration (NOAA) and the International Trade Administration (ITA)—continued to support efforts to address global food insecurity. Specifically, NOAA offered assistance through data sharing to address food insecurity through improved weather forecasting, drought early warning systems, and climate change resilience and adaptation, among other expertise. As noted above, NOAA coordinated with the Department of State to endorse the Aquatic / Blue Food Coalition and its declaration. This Coalition will help end malnutrition and build nature-positive, equitable, and resilient food systems. Additionally, ITA continued to bolster the creation of open and fair markets, support supply chains that allow for the free flow of U.S. goods and services to maintain global food security, and expand the international customer base for U.S. exports in food-insecure countries.

Lessons Learned

Collective Commerce activities were not specifically designed nor funded to promote global food security, but were ongoing, standing workstreams to carry out individual Bureaus' mandates. For example, NOAA's core mission is to provide its partners access to comprehensive oceanic, atmospheric, and geophysical data, and ITA's mission is in part to facilitate U.S. exports, which can include U.S. products that address global food insecurity. The activities nevertheless contributed to FTF. The impact of these activities relative to the GFSS, however, cannot be quantified because the indicators that the Bureaus use to monitor, measure, and evaluate performance are not designed to address food security. NOAA and ITA will continue to support global food security, albeit indirectly, through their core missions.

Appendix C: Additional References

- Monitoring, Evaluation, and Learning Indicators for the GFSS, and Glossary of Key Terms can all be referenced in the 2019 GFSS Implementation Report found at: https://www.usaid.gov/sites/default/files/2022-05/2019-GFSS-Implementation-Report.pdf
- 2. GFSA Crosscut Spending Report (to be posted on the Feed the Future website following the submission of this report)
- 3. FY 2021 Performance Data (to be posted on the Feed the Future website following the submission of this report)