



The Global Food Security Strategy (GFSS)

Ghana Country Plan

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Introduction

The Global Food Security Strategy (GFSS) Country Plan for Ghana was co-written by all United States Government (USG) agencies involved in food security and nutrition work after extensive consultation with stakeholders from government ministries, private companies, universities, research institutions, international and local Non-Governmental Organizations ((NGOs), donors and international organizations and was given extensive review and commentary by USG interagency partners in Washington, DC. As a living document, it is intended to be updated as needed in consultation with those parties over time.

The Ghana Country Plan is informed by performance, impact, and population-based data and analysis of the first phase of Feed the Future; market analysis of the targeted agro-ecological zones and socio-economic factors impacting poverty, nutrition, and resilience; and stakeholder consultations. Key changes to the approach include: reduced size of the zone of influence; greater emphasis on private sector investment and market facilitation; and selection of new value chains to increase resiliency and income. The USG Food Security team in Ghana employs a Collaborative, Learning and Adaptation (CLA) approach using real-time information and analysis to monitor performance and adjust activities to maximize investments, and respond to emerging opportunities and challenges.

The GFSS Country Plan serves as an overarching framework for integrated food security and nutrition programming. The plan is intended to describe the key drivers of food insecurity, malnutrition and poverty. These key drivers stem from a complex set of underlying conditions that exist at the individual, household, community and system level. At the design and procurement stages, the targeting, results framework and program components will require further refinement to operationalize integrated and holistic approaches. Interventions at all levels will need complement each other to sustainably tackle food insecurity, malnutrition and poverty. In particular, the most vulnerable and poor populations do not have sufficient assets, skills, and capabilities to participate in market activities. These populations will need to be supported to develop capacity over time to participate in value chains so they become a viable livelihood option. As GFSS programming is refined through the design, procurement and implementation processes, selected value chains will explicitly prioritize inclusive growth. Interventions will include support to the most vulnerable and poor populations to enable them to graduate into selected value chains and benefit from the GFSS-supported livelihoods and market development.

Budget assumptions for interagency contributions to this plan reflect the FY 2017 Estimate and FY 2018 President's Budget, based on information publicly available at the time this document was prepared. Out year budget assumptions reflect a straight-line to the FY 2018 President's Budget. Any funding beyond FY 2017 is subject to the availability of funds, as determined by the President's Budget and a Congressional appropriation. Budget assumptions may require revision in the future, based on future appropriations.

Executive Summary

Ghana's Global Food Security Strategy (GFSS) Country Plan presents a five-year integrated whole-of-government strategy as required by the Global Food Security Act of 2016. This Country Plan reflects an evidence-based, integrated, interagency approach for Ghana to achieve the GFSS goal of reducing poverty, hunger, and malnutrition through the three objectives of agriculture-led growth, resilience, and nutrition while positioning the country to become self-reliant. The Country Plan incorporates input from stakeholders from the Government of Ghana (GoG), private sector, academic institutions, and civil society. It will cover five years of implementation (FY18-FY22) and will replace Ghana's current Feed the Future multi-year strategy launched in 2012.

“The Ghana that I am seeking ... is a Ghana Beyond Aid. A Ghana that will free herself from the mindset of handouts. A Ghana mobilizing her own resources to solve her own problems.” With those words, Ghana's newly-elected President, Nana Akufo-Addo, galvanized a nation to begin the journey to self-reliance. Yet, Ghana is at a crossroads. Despite its global standing as a stable, richly-resourced, lower-middle income, democratic country, Ghana faces enormous development challenges. Ghana was ranked 139 out of 188 countries on the 2015 Human Development Index. With an expanding underemployed youth population, poor nutritional outcomes, and a growing north-south divide where close to 60% of the poorest populations reside in the three northern regions, Ghana's journey to self-reliance will not be easy.

To help Ghana bridge the north-south divide, strengthen its ability to manage and finance its own development journey, and position the country to transition from a recipient of U.S. development assistance, to a U.S. strategic trade partner, Ghana's GFSS Country Plan will adopt a two-pronged approach. **First**, GFSS will continue to improve agriculture-led growth, resilience, and nutrition in the Northern, Upper East, and Upper West regions of northern Ghana, where poverty and nutrition statistics are poorest. Critical to Ghana's food security, GFSS will also support protection of Ghana's marine fisheries in the coastal areas. **Second**, GFSS will make select investments targeting higher-value commercial crops across Ghana to support agricultural sector transformation through trade acceleration to put Ghana on a pathway to self-reliance. This two-pronged approach will allow Ghana to address its sub-national poverty and nutrition challenges, while bolstering its ability to manage and finance its strategic transition to self-reliance.

In northern Ghana, GFSS will work in roughly 20 districts, reaching approximately 150,000 beneficiaries, primarily women and youth, to (1) Enhance agricultural productivity and profitability; (2) Strengthen competitive market systems; (3) Increase access to finance; (4) Promote resilience; (5) Optimize economic inclusion; (6) Improve nutrition; and (7) Advance country leadership through evidence-based policy systems and institutions. GFSS will enhance agriculture-led economic growth, resilience, and women's empowerment by targeting improvements in the maize, soybean, cowpea, groundnut, shea, and marine fisheries value chains aiming to positively impact smallholder farmers. GFSS will improve nutrition by transforming key community, household, and individual practices that hinder improved nutrition, particularly during the critical 1,000 day window. It will implement a multi-sectoral approach for nutrition programming that incorporates agriculture, livelihood, and water, sanitation, and hygiene activities.

Nationwide, GFSS will accelerate trade by helping to facilitate trade and increase investments in high-value commercial horticulture and tree crops, which are critical to Ghana's path to self-reliance. Trade acceleration activities will complement the seven components implemented in northern Ghana with a greater focus on systems changes including improved and enforced policies, standards, and practices that will attract multinational “anchor” investors and retailers to Ghana. GFSS will work with firms to capitalize on the African Growth and Opportunity Act (AGOA), African Continental Free Trade Area, the Economic Community of West African States, and other regional and international agreements that enable exporting of consumer-preferred Ghanaian fresh and processed produce that have shorter travel times to European and regional markets.

To achieve the desired outcomes from this Country Plan, the U.S. Government will work in partnership with the GoG, private sector, civil society, and academia to assure Ghana has the capacity and commitment to sustain its development progress and breakthrough to self-reliance.

1. Food Security and Nutrition Context in Ghana

1.1 Country Priorities

Food and nutrition are high priorities for the GoG. According to the 2017 Global Food Security Index (DuPont/Economic Intelligence Unit), Ghana is among the most food secure countries in Sub-Saharan Africa (South Africa and Botswana are the only others to top Ghana). Improving the productivity of crops, wild and capture fisheries, livestock, and enhancing the competitiveness of agriculture to ensure its integration into the domestic and international markets are key to increasing incomes and transforming the agriculture economy.

Ghana was one of the first African countries to sign the Comprehensive Africa Agriculture Development Program (CAADP) Compact in 2009. In this Africa Union-led effort, the Heads of State adopted new declarations at Malabo in 2014 to double agricultural productivity levels by 2025 and sustain a 6% growth rate for agriculture Gross Domestic Product (GDP) to end hunger and halve poverty. Nearly four years later in a review of progress, Ghana's performance was reported as "off track." The three recommendations coming out of the January 2018 Africa Union (AU) Biennial Review were that Ghana should: 1) increase the share of agriculture land under sustainable land management practices from the current low level of 0.04%, 2) increase public agriculture expenditure as a share of total public expenditure to the Malabo Declaration target of 10%, and 3) put in place policies that would facilitate and promote intraregional African trade in agricultural commodities and services.

Ghana is rated by Freedom House as one of the freest countries in Sub-Saharan Africa (second to Cape Verde). Its relatively peaceful transition through democratic elections, political stability, and consistent policies are integral to the country's achievement of lower middle-income country status in 2011. Policies of the administration, elected in December 2016, emphasize: 1) revitalizing and modernizing agriculture, 2) continuing broad-based and inclusive growth, 3) enhancing a competitive and enabling business environment for private sector-led growth, 4) building a strong and resilient economy able to withstand internal and external shocks, and 5) promoting good nutrition.

Ghana is blessed with natural resources that can provide the necessary assets to finance productive investments in education and health which in turn could generate long-term results. Political stability helps businesses take more risks in making long-term investments in the country. With the declining trend in Official Development Assistance (ODA) and donors seeking new forms of partnership with newly designated lower middle-income status countries, it is in Ghana's best interest to position itself firmly in the ranks of advancing economies that can sustain its growth beyond aid. Moreover, to achieve the sustainable development goals (SDGs) requires new investments that need to be financed by both the private sector and the GoG. Considering this, President Akufo-Addo continues to emphasize the need to move 'Ghana Beyond Aid' by ". . . freeing our people from a mindset of dependence, aid, charity, and handouts, and building a self-reliant economy . . . with women and youth in the forefront." He envisions, "A Ghana mobilizing her own resources to solve her own problems." This aligns precisely with USAID Administrator Mark Green's position that the purpose of foreign assistance is to end the need for its existence. Ghana has taken steps to pay for its own social cash transfer and subsidize its national health insurance scheme for its poorest. The country plans to increase district-level accountability by amending the constitution to allow for District Chief Executives who will be accountable to their constituencies. Ghana's pro-poor development path is, in part, why the President was chosen to co-chair the UN Secretary-General's SDGs Advocates group to promote an ambitious and transformative global agenda.

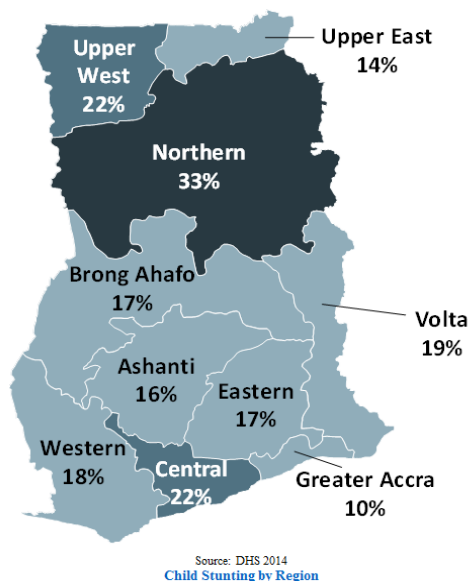
1.2 Poverty, Hunger, and Malnutrition

Ghana's strong economic growth over the past two decades helped cut the country's poverty rate from 56.5% in 1991 to 24.2% in 2013, thereby achieving the Millennium Development Goal target of halving poverty (UNICEF 2016). Despite this progress, there are wide disparities across the country. The Northern Region¹ stands out as the one having made the least progress in poverty reduction and now makes up the largest number of poor people of any of Ghana's

¹ Northern Region, one of Ghana's ten administrative regions, is not to be confused in references to "northern Ghana," or "the north" which generally refers to the three regions of Northern, Upper West, and Upper East.

ten regions. Poverty is not only more pervasive in the north, but the depth of poverty is greatest in these three regions of Northern, Upper West, and Upper East. This gap between the north and the rest of Ghana is, in large part, due to its geography and agro-ecological differences. The south has two rainy seasons, while the north has only one and is heavily dependent on subsistence agriculture. In common with neighboring Sahelian countries, the north is experiencing increasingly erratic rainfall. Furthermore, farming communities in the north traditionally have had few alternative livelihood opportunities.

Similar national and regional trends can be seen in nutrition. Chronic malnutrition among children under five dropped from 35% in 2003 to 19% in 2014 across the country (Ghana DHS 2014). In much of the north, stunting rates are higher than the national average of 19% and peak at 33% in the Northern Region. However, according to 2015 PBS data, stunting exceeds 40% in four of the Region’s 25 districts. High prevalence of stunting in the north is strongly correlated with poverty and inappropriate nutrition practices (eg. diets highly reliant on starch and low consumption of proteins and green leafy vegetables and fruits). Micronutrient deficiencies—hidden hunger—persist. Anemia is a



a severe public health problem in Ghana, especially among children and women of reproductive age, and rates are particularly high in northern Ghana. Nationally, 66% of children suffer from anemia; though rates in the Northern Region reach 82%. Anemia is a serious concern for children given it can impair cognitive development, stunt growth, and increase morbidity from infectious disease.

In addition to inadequate feeding practices and lack of dietary diversity), low access to health services and poor water, sanitation, and hygiene (WASH) practices contribute to undernutrition.² Households in northern Ghana have particular challenges. There are few toilet facilities at the household level, and open defecation rates range between 71% and 89% in the three northern regions. Water sources are often far from home and are typically a river or stream. Over 90% of households do not treat their water prior to drinking and eight out of ten Ghanaian households do not have hand washing facilities due to cost (UNICEF).

Finally, the precipitous decline in coastal fisheries poses a risk to nutrition and food security given the important protein source these fish play in the diets of coastal and far inland communities. Dried and smoked fish, especially the small pelagics, are transported throughout Ghana and even into neighboring countries. Consequently, the decline in the profitability of the small pelagics value chains are central to the livelihoods of coastal communities is also an important consideration for the northern zone of influence (ZOI) and Ghana in general.

1.3 Greatest Constraints Within the Food and Agriculture Market System

The agriculture sector accounts for one-fifth of Ghana’s Gross Domestic Product (GDP) and employs nearly half the workforce out of a population of 29 million people. It is the main source of livelihood for the majority of the country’s poorest households and provides a critical source of employment for nearly 6.5 million women and the 300,000 to 350,000 new workers who enter the labor force each year. Cocoa plays an important role in the economy (10% of agricultural production); tree crops such as oil palm, cashew, rubber, shea, and mango are also important, but overall, food crops (including rice, maize, groundnuts, soybeans, cassava, yams, and plantains) dominate agriculture, accounting for nearly 70% of the value of production of the sector, while the remaining subsectors (fishing, livestock, and forestry) make up the last 20% of agriculture GDP (Ghana Statistical Service).

² Among all children 6-23 months, less than 20% receive the World Health Organization (WHO) recommended four or more food groups in the north, compared to 28% country wide.

Since the 6% agriculture GDP growth re-commitment made at Malabo in 2014, Ghana's rate has averaged only about 3.4% each year. This is partly due to low crop yields. Cereal production is estimated at 1.7 tons/hectare compared to the regional average of 2.0 tons/hectare. In addition, overexploitation of marine fisheries is reducing production and limiting the availability of fish, a source that provides 60% of the animal protein in Ghana. As a result of low productivity, Ghana continues to be a net importer of basic foods such as rice, poultry, sugar, vegetable oil, and fish. Despite the need for agriculture growth and CAADP commitment, public expenditure for the sector declined over the past decade. In the recent African Union (AU) Biennial Review on agriculture progress, Ghana's expenditure rate on agriculture is estimated at 6% as a share of total public expenditures. The subsidy market, imprecise fertilizer application recommendations, and one of the lowest application rates in all of Sub-Saharan Africa (12kg/hectare, IFDC) — present key challenges. Availability of water resources is a major strength for the north. Annually, there are 40 billion cubic meters of renewable run-off water from three major river basins; however, it remains largely untapped for irrigation (SADA). Research through the Feed the Future Innovation Lab for Small-Scale Irrigation estimates over 210,000 hectares in the north (representing about 15% of the cropped area) has the potential for small-scale irrigation. Less than 5,000 hectares of this is being irrigated from small dams or dugouts. Farmers and downstream agricultural market system actors have little access to debt financing (AgCLIR). The private seed industry faces several challenges that may limit its development, which will limit access to quality planting material among smallholder farmers. Ghana's coastal location, ports, and roads make it an ideal market for regional and international trade. However, from 2016 to 2018, Ghana slipped from 154 to 158 out of 189 countries, on the World Bank Doing Business Trading Across Borders indicator, trailing behind Burkina Faso (113), Cote d'Ivoire (155) and Togo (121). Ghana's aim for greater food security as well as increased self-reliance will require better linkages between producers and markets and maintaining an enabling environment that will attract and retain large private sector investors.

1.4 Partnership Landscape

The USG has long been among Ghana's most important development partners. The Millennium Challenge Corporation's earlier compact with Ghana (2006-2012) invested in agribusiness development and more recently in power. The U.S. Department of Agriculture's past school feeding, ongoing Food for Progress programs, and capacity building under the Borlaug and Cochran Fellowships have targeted nutrition and agricultural improvements. USAID, with its strong development programs, including agriculture and wild fisheries, has been a leader among development partners in supporting Ghana's progress in poverty reduction.

An analysis by USAID/BFS partner Development Gateway under the Initiative for Open Agriculture, using Organization for Economic Cooperation and Development (OECD) data, reported the agriculture sector accounted for about 10% of all ODA to Ghana between 2011 and 2015. During this period, annual ODA disbursements to agriculture ranged between \$120 million and \$225 million. The multilaterals—World Bank and African Development Bank—are prominent in the food security sector, contributing more than one-third of this amount. UK, Canada, and France also have strong programs in the Northern Region that complement Feed the Future investments. The European Union (EU) just started a new agriculture/resilience/infrastructure program in part of the proposed ZOI which happens to align with the objectives of the GFSS. In addition, Norway and the EU have significant investments in fisheries. Grow Africa and the Alliance for a Green Revolution in Africa (AGRA) offer important partnerships to increase private sector engagement that strengthens agricultural systems and secures greater sustainability to achieve “beyond aid” aspirations. The new government's focus on jobs for youth includes investing in initiatives to attract youth to agriculture. To bridge Ghana's north-south economic and social divide, the Savannah Accelerated Development Initiative (2010-2020), which is being rebranded as the Northern Development Initiative, attracts donor and private investments into growth corridors throughout northern Ghana.

Increased activities in high value horticultural value chains in the southern Ghana continue to attract and retain private sector investors. These current and expected investors include U.S. and other international fruit processing firms and supermarket suppliers of fresh vegetables. These firms plan to capitalize on the AGOA, African Continental Free Trade Area, the Economic Community of West African States, and other regional and international agreements that enable exporting of consumer-preferred Ghanaian fresh and processed produce and shorter travel times to European and regional markets. USAID involvement in these value chains increases confidence from firms and investors that

product standards will be maintained at each step of the value chain. Such investments are critical for Ghana to catalyze and incentivize the sector modernization, including updating the public regulatory system to meet the needs of investors, especially exporters.

The U.S. is the Scaling Up Nutrition (SUN) Movement Donor Convener, supporting the GoG to coordinate and align donors and other stakeholders' nutrition plans, programs, and resources through a multi-stakeholder platform. The U.S. is also an active leader in the Agriculture Sector Working Group, with USAID's term as Chair having just concluded. The USAID Mission Director chairs the Heads of Cooperation (HOCs) group, which focuses on ensuring that ODA aligns with the country-owned strategies and priorities including those in agriculture. The USG will continue to look to these fora as entry points to leverage funding and influence investment choices that support the transformation of agriculture.

2. Targeting

2.1 Geographic Targeting

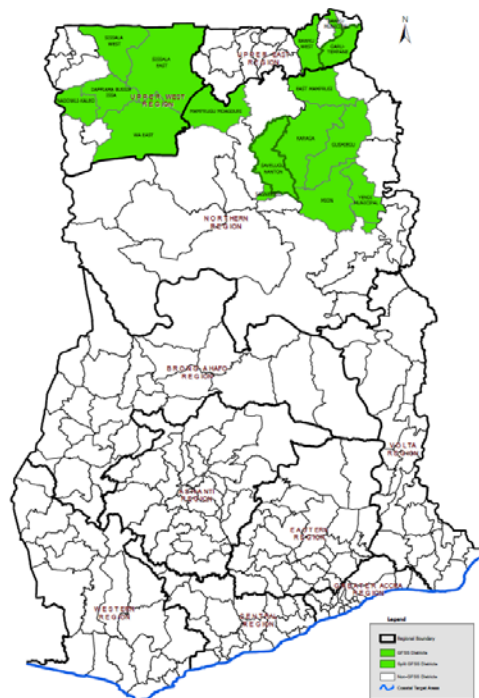
To help Ghana bridge the north-south divide, strengthen its ability to manage and finance its own development journey, and position the country to transition from a recipient of U.S. development assistance to a U.S. strategic trade partner, Ghana's GFSS Country Plan will adopt a two-pronged approach. **First**, GFSS will continue to improve agriculture-led growth, resilience, and nutrition in select districts within the Northern, Upper East, and Upper West regions of northern Ghana, where poverty and nutrition statistics are poorest. Selected districts will form the ZOI where the population-based survey (PBS) will be administered. Critical to Ghana's food security, GFSS will also support protection of Ghana's marine fisheries in the coastal areas. **Second**, GFSS will make select investments targeting higher-value commercial crops across Ghana to support agricultural sector transformation through trade acceleration to put Ghana on a pathway to self-reliance. This two-pronged approach will allow Ghana to address its sub-national poverty and nutrition challenges, while bolstering its ability to manage and finance its strategic transition to self-reliance.

Selection of the GFSS ZOI for Ghana considered factors including areas with high levels of stunting and poverty, low levels of women's empowerment, areas at greatest risk for increasingly erratic rainfall, and strategic opportunities for leveraging other donors' and GoG investments. This combination of vulnerability, need, and partnership in the ZOI represents an opportunity to reduce poverty over the long term, improve nutritional outcomes, and increase the resilience of Ghanaians.

The ZOI is in portions of northern Ghana—Northern, Upper East, and Upper West regions—and coastal areas benefiting from marine fisheries. While continuation of the ZOI in these regions will enable GFSS to build on Feed the Future experience, investments, and relationships, going forward Feed the Future will focus on significantly fewer districts—only 15-20 of the 59 districts in the Feed the Future phase 1. This selection analysis is ongoing and is based on need (poverty, stunting), market potential (acreage of value chains, roads, and market infrastructure), natural resource corridors, gains made by Feed the Future activities, donor saturation and complementarity of interventions, and host government consultations. The ZOI may expand to more districts within these regions should sufficient resources become available.

Focusing on 17 districts, Feed the Future expects to reach at least 100,000 beneficiaries per year in northern Ghana. Should Feed the Future expand to 20 districts, it expects to reach approximately 150,000 to 180,000 beneficiaries. This compares to reaching 230,000 beneficiaries during the last year of the previous Feed the Future strategy with funding levels that averaged \$50 million/year since 2011. The lower cost per beneficiary is premised on two things: 1) a greater concentration of farmers reached in the proposed districts--from 15% in the past to about 20% under GFSS, and 2) a more efficient outgrower model that enables a scaling-up of market linkages and producers using Feed the Future technologies and practices.

- Northern, Upper East, Upper West Regions ZOI.** Agricultural growth is the major driver of poverty reduction especially in northern Ghana, an area characterized by high poverty and malnutrition. Despite Feed the Future’s success (between 2012 and 2015, poverty fell in the areas where Feed the Future works by nearly 12% and the prevalence of child stunting dropped by 18%), one in three children is stunted (29.9%)³. Additionally, wasting is a serious public health concern--in half (16) of the 32 Feed the Future districts where PBS had sufficient sample size, the prevalence of wasting was above the emergency threshold level, ranging from 15% to 23.5%.⁴ This large expanse of Savannah agro-ecological zone, which covers 54% of the country’s total land area with about 17% of Ghana’s population, is diverse with multiple ethnic groups, languages, and religious groups. It is an area vulnerable to eruptions of violence, land disputes, and farmer-pastoralist conflicts, causing instability for farmers who are often forced to flee when violence erupts over their land. Of the Feed the Future phase 1 ZOI population (estimated in the 2015 PBS at 5.6 million), over 77% of the households are involved in agriculture (compared to the Ghana Living Standards Survey estimate of 51.5% nationwide). They are mostly smallholder producers with five acres or less—45% are women—and they produce one-third of the nation’s total crops. Regions in the north are challenged by poor soils, low productivity, and changing and increasingly unpredictable rainy seasons along with greater potential for drought.



Zone of Influence Map

As of July 2018, the Savalugu Nanton and Garu-Tempene districts were each divided into the Savalugu Municipality and Nanton District and the Garu District and Tempene District, respectively. No corresponding map is yet available. The Feed the Future ZOI will include the Nanton, Garu, and Tempene Districts.

The ZOI will include the following 17 districts:

Northern Region: East Mamprusi, Gushiegu, Karaga, Mamprugu Moagduri, Mion, Sagnerigu, Nanton, Yendi

Upper East Region: Bawku Municipal, Bawku West, Garu, Tempene

Upper West Region: Daffiama Bussie Issa, Nadowli-Kaleo, Sissala East, Sissala West, Wa East

- Coastal marine fisheries ZOI.** Moving towards sustainable and equitable fishing can be a driver of poverty reduction in coastal areas. However, the sustainable productivity and profitability of wild fisheries—both large and small scale—are endangered by inadequate fishing policies, poor fisheries management, the lack of participatory decision-making, and others. Artisanal fishers, with a tradition of catching sardines, mackerel, and anchovies, are under threat of a complete collapse in their livelihoods from overfishing. Their catches have dropped to about 14% of the maximum annual yield (a harvest rate drop to less than 10% of the historical maximum signals a collapse). Fish makes up the major animal protein in the nation’s diet; a collapse would be of particular consequence to the most vulnerable who depend on dried fish readily available in small kiosks and open markets throughout Ghana, including some of the most remote markets in northern Ghana and beyond.
- Trade acceleration:** Export vegetables and other horticultural crops (mango, pineapple, papaya) constitute Ghana's largest non-traditional exports. From 2015 to 2017, due to Ghana’s inability to manage pest infestations and implement traceability systems, the European Union placed a ban on select horticultural crops resulting in a loss of \$30 million in sales by Ghanaian firms and farmers. The market was reopened in January 2018 following USAID’s technical assistance as part of a multi-donor effort to improve Ghana’s sanitary and phytosanitary systems as well as the institution of a traceability system. Ghana has the potential to capitalize on a \$2.5

³ Between the PBS baseline in 2012 and 2015, poverty fell from 22.2% to 19.6% and stunting from 36.1% to 29.9%.

⁴ PBS data was gathered in July-August 2015, during the lean season.

billion/year non-traditional export market for shea and vegetables. GFSS will make select investments in partnership with anchor investors to facilitate the growth and development of higher-value commercial crops in support of the GoG's plan to recapture market share and access new markets as a source much needed foreign exchange. Neither these investments nor their impact will be limited in geographical scope. They will make necessary contributions to support Ghana's agricultural sector transformation through trade acceleration to put Ghana on a pathway to self-reliance.

2.2 Target Populations

Ghana's GFSS Country Plan will pull smallholder farmers and artisanal fishers, primarily women and youth, into strengthened market systems. It will build the capacity of private sector actors in both the ZOI and in other areas that will enable producers to link with agribusinesses and other markets that are essential for providing forward and backward linkages. Women play a key role in farm-level production as well as fish processing and marketing and are the main decision-makers about nutrition for their families. They and children under five, with specific focus on the critical 1,000 day window from pregnancy to a child's second birthday, are the main focus for diversifying diets and other nutrition interventions. Women as well as youth, ages 15 to 35, are targeted for building entrepreneurial, management, and leadership skills to increase their empowerment and enter higher levels within the value chains.

2.3 Value Chain Selection

Agriculture crops: Maize, soybean, groundnut, cowpea (northern ZOI). Crop value chains under Feed the Future were maize, soybean, and rice. Taking stock of the evidence and after close consultation with a range of stakeholders, the GFSS Country Plan proposes to build on our past investments and continue with maize and soybean and add groundnut and cowpea, but drop rice. A recent analysis by the International Food Policy Research Institute evaluating these three commodities' profitability and competitiveness—a lens through which we prioritize value chain selection—found that efficient maize and soybean farmers can make substantial positive profits. Rice production, even by efficient farmers, is neither profitable nor internationally competitive (IFPRI 2012).

Maize is the most important staple crop for food security, accounting for more than 50% of total cereal production in the country. It is prevalent in the northern ZOI and is planted mostly by smallholders. The scope for increasing maize yields (1.7 tons/hectare currently vs. 3.5 tons/hectare potential, AGRA) is great, particularly with improved seed and fertilizer application. Soybeans are a relatively new crop in Ghana, introduced in the north with the goal of reducing malnutrition. Production, however, has expanded rapidly and has roughly doubled over the past decade for this commercial crop (about 80% of soybeans produced are sold according to a Feed the Future analysis) in the ZOI area. A leguminous crop, soybeans are used in rotation with maize which improves nutrients in Ghana's weathered soils. Research shows that, when combining appropriate agronomic practices, soybean yields, using locally available varieties, can be increased over 2.5 times what farmers commonly experience in northern Ghana. High in protein and vitamins, soybeans complement the starchy staples in the diet. Groundnuts and cowpea are also planted widely in the north. Of the groundnut production, 80% is sold. Of the Cowpea production, 65% is consumed at the household level or shared, and it is well adapted to environmental conditions such as drought and high temperatures compared with other crops, making them an excellent resilience crop. Both are profitable and offer nutritional benefits in the diets of the ZOI population and are protein-rich, Groundnuts add an important source of fats. All three non-cereals crops—cowpea, groundnut, and soybean—are grown predominantly by women and meet the Nutrient Rich Value Chain Commodity definition. These value chains represent an opportunity to promote women's empowerment as well as an "agriculture to nutrition pathway" that leads to better nutrition.

Coastal Marine Fisheries: Fisheries are an important food commodity for nutrition. Yet, inefficiencies exist along the fish value chains due to overfishing, low quality, and poor processing. Most artisanal, canoe fishers are dependent on fishing for most of their income. Few of these households have crops, livestock, or other alternatives. This lack of non-fishing livelihoods, plus the lack of ecosystem-based fisheries management, also suggests low household economic resilience. Their fish-dependent consumption has resulted in low dietary diversity among over 60% of the population sampled (lower than the poor dietary diversity in northern Ghana). Better management and production

efficiencies will be targeted to provide additional jobs, increase incomes, and enhance nutritional quality of fish products. GFSS will support regulatory measures to control sustainable harvest and post-harvest management (cold chain and processing) that improves food safety, quality, and value.

Trade Acceleration: *Shea, high-value crops:* Diversification into higher-value crops is an important part of agricultural transformation that offers the potential to pull farm households out of poverty by connecting them to more lucrative domestic and international markets and diversifying their incomes. Feed the Future leveraged more than \$16 million in new private investment in rice, soy, maize, and marine fisheries with the earlier value chains. Introducing the opportunity to address agriculture-led economic growth through lucrative high-value commercial crops enables GFSS to partner with anchor investors to greatly expand leverage. Some of these crops will be consumed at home, thereby complementing households' increase in incomes with access to more nutritious foods. For example, Ghana's shea, collected by women, is known for its good quality, but represents less than 15% of the sub-region's trade as collected volumes do not match in-country processing capacity. Across northern Ghana, annual average prices (per ton of dry shea kernel) have risen from \$150 in 2003 to \$350 in September 2016 and projected to reach \$450 within 3 to 5 years. Opportunities exist for improved collection practices, value addition, and market linkages to capture greater premiums by women.

Identification of high-value crops beyond shea will be completed after strategy approval and based on where GFSS can cost-effectively deliver jobs, exports, and include women and/or youth. Priority will be given to crops with identified large first-mover investors whose activities offer the possibility to change the production structure, leverage comparative advantages within the domestic economy, and link Ghana to global supply chains. To enable Ghana to become a stronger trade partner and transform its economy through agriculture, trade acceleration investments will not be geographically limited.

3. Results Framework

Sustainability in reducing hunger, malnutrition, and poverty in Ghana and moving the country towards self-reliance requires a comprehensive, multi-sectoral approach that extends beyond focusing on agriculture-led economic growth. Essential to improving nutrition and growing the economy are the substantial and complementary investments the U.S. is also making in education, health, and governance. Analysis by former USAID Chief Economist, Steve Radelet, showed that advances in education and knowledge help improve health, better health helps improve learning ability, and both together contribute to economic growth (Radelet 2015). The GFSS results framework builds on a strong national health system that enables families to live healthier and more productive lives, including sustained support to enable women to access services for unmet family planning needs. Studies show women who receive such services have better nutritional status, larger incomes, and greater accumulation of wealth, all contributing to economic growth. Successful GFSS results will also require continued governance programs in which civil society plays a greater role by promoting mechanisms that enable access to information for citizens and increase their ability to monitor local government spending for agriculture and nutrition programs. Empowering women and youth to become more productive, linking agriculture with private sector, including with stronger markets in other parts of the country, and intensifying and diversifying agriculture to manage risk will accelerate northern Ghana's trajectory to graduation and greater food security.

In addition, the USG and GoG are exploring efforts to increase Ghana's fiscal space by improving the country's domestic resource mobilization (DRM). DRM has the potential to boost resources for the agriculture sector as well as the other complementary sectors mentioned above. As Ghana increases private investment and grows its economy, the potential tax base will also grow. Through GOG-led DRM activities, the government can mobilize resources from this increased tax base and reinvest them in agriculture, social services, and other sectors necessary to ensure Ghana reaches and sustains its self-reliance. USAID/Ghana's current CDCS is set to expire in December 2019. As the Mission embarks on future strategic planning, GFSS will play an integral role in its development. The next USAID/Ghana CDCS, much like the GFSS Country Plan, will look to provide a more integrated and cross-sectoral

approach to development; maximize resources by focusing on women and youth; and advance the GOG's vision of a Ghana Beyond Aid.

The theory of change is if the USG and the GOG, in partnership with private sector, civil society, and other development partners, work in coordination to increase incomes through agriculture-led growth, build resilience, and improve the nutrition of households in northern Ghana and along the coastal areas, with an emphasis on women and youth, then hunger, malnutrition, and poverty among target populations will be reduced. If these stakeholders also work towards transforming Ghana's economy through nationwide agriculture-led economic growth paired with improved government resource planning and management, then Ghana will progress towards self-reliance.

Under Objective 1, if agriculture is approached as a commercial rather than a subsistence activity, then farmers will increase their productivity and profitability. Ghanaian farmers obtain less than half of the national potential maize, soybean, groundnut, and cowpea yields. Linking farmers, including female farmers, to input dealers and extension agents to access improved varieties and fertilizers and adopt appropriate climate smart, cultural, soil, and pest management practices can double yields while decreasing input costs by over 50% as proven by USAID's Agricultural Development and Value Chain Enhancement (ADVANCE) Program.⁵ If traditional sources of financing are improved and new financing sources and instruments are introduced to the benefit of agribusinesses, rural entrepreneurs, and smallholder farmers, then access to finance by smallholder farmers, women, and youth will increase.⁶ If Ghana increases the quality and quantity of staple and high-value commercial crops, grows investment in forward linkages with value chain actors,⁷ reduces its trade barriers, and improves and regulates standards, then its domestic and international investment and market opportunities will increase, Ghana's economy will be transformed through agriculture-led economic growth,⁸ and more revenue will be available for capture by the government to use for development. If the current strong political commitment remains and if development partners work with the GoG to improve government resource mobilization, planning, monitoring, and management, then Ghana will make sustainable progress towards self-reliance. To achieve inclusion, Feed the Future investments will employ specific strategies that will target women and youth to become actively engaged in agriculture-led growth.

Under Objective 2, if technologies including improved water storage and management, pest and disease prevention, and minimal tillage practices are adopted, if access to information about market prices, weather forecasts⁹, and/or declining fish catches is improved, if savings to build asset bases particularly during lean seasons are increased¹⁰, and if local governments can respond to citizen needs, then farmers and fishers will improve their management and mitigation of risk. If women and youth are economically empowered, if Ghana's natural resources, especially its marine fisheries stocks, are protected, if human capital is improved through multisectoral approaches, and if households diversify their production and markets including into higher-value commodities through dry-season

⁵Analysis of USAID's ADVANCE project baseline and annual data for maize and soybean from 2012 to 2017.

⁶ USAID's Financing Ghanaian Agriculture Project (FinGAP) leveraged \$136 million in finance to over 2,250 small, medium, and large enterprises, in the maize, rice, and soybean value chains reaching almost 150,000 smallholder farmers. From 2013 to 2016, USAID's FinGAP-supported firms and farms grew by 64% during this period and 43% of smallholder households are now earning more income as compared to 2013. USAID's FinGAP further found that targeting female-led enterprises with financing is more likely to reach smallholder farmers who are women.

⁷ USAID's ADVANCE Program showed that linking farmers to aggregators and/or processors can increase their prices by as much as 260% comparing to selling in local markets. Minimizing mycotoxins can add an addition 10%.

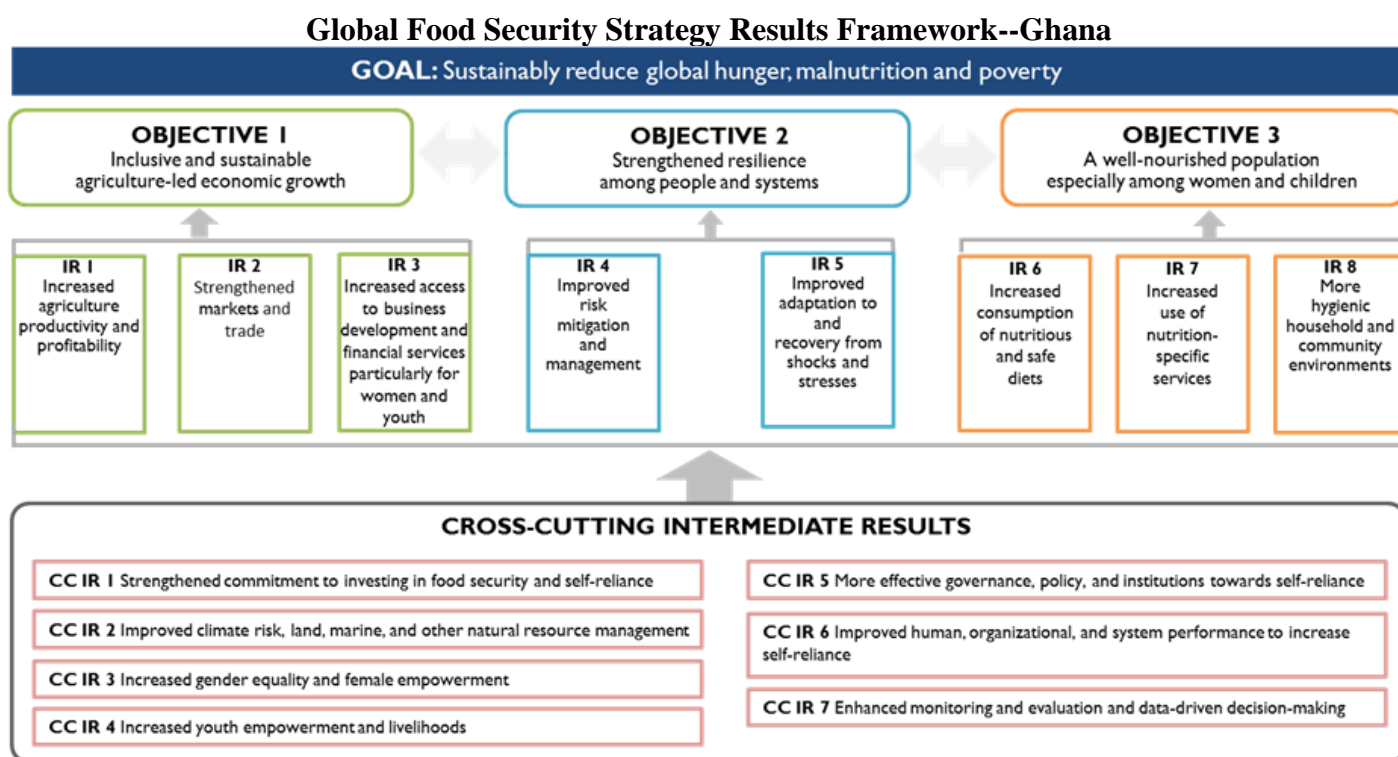
⁸ USAID's support to the Ministry of Food and Agriculture to meet sanitary and phytosanitary requirements led to the reopening of the European Union market to Ghanaian vegetables in 2018, after losing \$30 million in sales when the ban was enacted in 2015.

⁹ A survey conducted by Voto Mobile of 2,681 farmers in Kintampo North and South in FY 2017 indicated 81 percent satisfaction, with 94 percent indicating willingness to pay for receiving weather, market, and/or agriculture tips messages.

¹⁰ During FY 2017, USAID's Resiliency in Northern Ghana project beneficiaries benefited from nearly GHs 3.5 million (US\$795,454) that was shared-out by 566 VSLAs, ultimately benefiting 16,291 members across the 17 districts. Results from share-out utilization funds show 38% was invested in agriculture (inputs, seeds, plow and weeding labor, etc.), while the remaining 62% was invested in healthcare, education, and income generating activities, among other things.

production¹¹ as well as alternative livelihoods, then farmers and fishers will improve their adaption to and recovery from shocks and stresses.

Under Objective 3, if women are empowered, if households grow, consume, and sell safe, diversified fish and crops, if diets among women and children, especially in the critical 1,000 day window, diversify, and if infant and young child feeding practices improve, then women and children will increase consumption of nutritious and safe diets. If the Ghana Health Service continues to increase its nutrition-related capacities, if the quality of nutrition counseling and community-based management of acute malnutrition is improved, and if prevention and control of anemia in children increases, then nutritional status will increase, particularly during the critical 1,000 day window. If households adopt improved hygiene and sanitation behaviors and increase access to clean water, and if communities become open defecation free, then household and community environments will be more hygienic, disease prevalence will decrease, and nutritional status will improve. Adopting multi-sectoral approaches throughout and using the three agriculture-nutrition pathways--food production, agriculture income, and women’s empowerment--will be central to achieving this objective.



4. Program Components

The USG’s plan to invest in an agriculture system of focused commodities that link to local, national, and export markets is grounded in an extensive review of evidence and lessons learned. Of priority will be the need to align GFSS with the government’s priority value chains (includes maize, soybeans, groundnuts, and vegetables) under the *Planting for Food and Jobs* initiative of the new government. A value chain approach private sector-led, with the necessary and

¹¹USAID’s Agriculture Technology Transfer found that if farmers grow only an imported hybrid variety of maize, their daily income from this crop is approximately \$1.50. If farmers add a second season of production and grow fresh chili peppers, their incomes are projected to reach almost \$7.00 per day.

appropriate level of public sector partnership, will be a major criterion in designing activities. For marine fisheries, the major policy anchor will be the 2015-2019 National Fisheries Management Policy. Accelerating trade by helping to liberalize and facilitate trade and increase investment in high-value commercial horticulture and tree crops is critical to Ghana's path to self-reliance. Improving resilience to shocks and stresses for smallholders in the north and fishers in coastal areas is an important consideration in choosing entry points. Strengthening the ability of women and youth to actively participate throughout the value chain by tailoring technologies and delivery systems, increasing access to credit, and building leadership and entrepreneurship skills are central to transforming agriculture in the ZOI so broad-based growth is inclusive and transformative. Optimal nutrition is essential to end extreme poverty and to promote resilient democratic societies while advancing USG national security and prosperity. Malnutrition in children in the critical 1,000 day window has adverse consequences for child survival and long-term wellbeing. USAID/Ghana aims to improve the nutritional status of pregnant and lactating women and children in the 1,000 day window by reducing chronic malnutrition and anemia. Themes that were highlighted in robust stakeholder deliberations are reflected in the seven components below and reinforce the Country Plan's alignment with local ownership and the aspirations of Ghana's civil society, private sector, government, and other development partners. To sustain gains and move Ghana towards self-reliance, the USG will assist Ghana to generate revenue and foreign currency, accrued by both the public and private sectors, to re-invest in its development.

4.1 Enhance Agriculture Productivity and Profitability (IR 1)

The USG will increase farmer's capacity to grow maize in rotation or intercropped with a leguminous crop—soybean, groundnut, and/or cowpea. These leguminous crops improve human, animal, and soil health, which increase household resilience. By building skills of producers, they will have better access to market their crops and/or process them for human/animal consumption. Five years of successful Feed the Future implementation shows that farmers grow more than staple crops. Evidence shows that the addition of other value chains can greatly benefit the poor and improve linkages to nutrition-sensitive agriculture. The next generation of Feed the Future investments will, therefore, promote higher-value crops as part of smallholders' mixed farming practices and support dietary diversity. Water management technologies will be introduced to increase farm productivity, including by adding a higher-value crop for those households with access to water. This diversity of crops reduces risks, provides better nutrition, and generates income.

The USG will build fishers and fishery managers capacity to increase the natural productivity and profitability of wild fisheries. The focus will be on strengthening governance by expanding the new fisheries co-management policy, strengthening resource-tenure to protect livelihoods from encroachment by trawlers and illegal fishing practices, and building partnerships with U.S. public and private institutions to apply science and technology for evidence-based policies. This will support the National Fisheries Management Policy focus on: (a) reducing excessive pressure on fish stocks, (b) moving toward sustainable harvests, and (c) strengthening participatory decision-making in management.

To ensure incorporation of new and innovative approaches into the design, implementation and learning of food security and nutrition programming, the GFSS Country Plan, with guidance from the [Global Food Security Research Strategy](#), will leverage new and improved technologies, practices, and expertise from USAID/Washington staff, Feed the Future Innovation Labs, the Consultative Group for International Agricultural Research (CGIAR), the National Agricultural Research System (NARS), relevant stakeholders, and other centrally-funded research programs. Close collaboration between Mission value chain programming and in-country Washington-funded research investments will be highly encouraged by D.C. and field staff and incentivized to ensure uptake of research-derived innovations. Innovative approaches using science and technology will enable farmers and agribusinesses to adapt new approaches that show profit and risk management opportunities. Where relevant and feasible, digital tools and technologies will be leveraged in order to reduce transaction costs, ease the sharing of information and efficiency of payments, and increase the trade of products and services between value chain actors. Drought resistant and higher-yielding crop varieties and seed distribution systems will increase the availability of quality maize and other seeds. The USG will also look for opportunities to introduce Pro-Vitamin A Maize (PVA Maize) for nutrition improvement. As appropriate, GFSS will work with researchers, input dealers, and/or farmers to increase farmer adoption of pest management strategies that enable farmers to meet domestic and/or market demands for targeted commodities. GFSS will work with the Ministry

of Food and Agriculture (MOFA), the Environmental Protection Agency (EPA), and the private sector to increase availability of and access to authentic, in-date pesticides and biocontrol agents as well as promote safe application and management by individuals and/or groups, especially to manage aflatoxin prevalence and Fall Armyworm (FAW) infestation. Since mid-2016, FAW has infested maize farms throughout Ghana. The USG will continue to support communications, training, monitoring, early warning, policy, and/or regulatory activities to minimize the impact of recurring FAW and potential issues with aflatoxin prevalence and pesticide residue in FAW-affected maize.

4.2 Strengthen Competitive Market Systems (IR 3)

Building on recent investments by Feed the Future in agro-processing, USG investments will facilitate forward linkages with value chain actors—aggregators, processors, and finance institutions—to increase value/market opportunities for maize, soybean, groundnut, cowpea, and wild-caught fish, and select higher-value commercial crops, especially for women and youth. Activities in the north will target poverty alleviation and mostly focus on products for domestic consumption. Building on the potential \$2.5 billion/year non-traditional export market for shea and vegetables, which is an important part of Ghana’s agriculture transformation, activities in the south will strengthen existing market systems, especially for export crops.

Transforming basic commodities through processing will be a focus for food security crops, all of which are tradable products (i.e, maize flour, roasted groundnuts, safer fish products), to support poverty alleviation in Northern Ghana. Improved post-harvest handling as well as adding value to commodities are priorities for the country and a pathway to creating jobs, especially for women—who are already heavily involved in processing, post-harvest handling, and storage—and youth. Starting at the farm/fisheries landing sites level, post-harvest handling and storage will be improved. GFSS will support the improved quality of seed, including early generation seed, and will promote private sector participation (i.e, seed companies, traders) in the seed sector including strengthening policies to enable this participation. The USG has entered into discussion with AGRA and others to join efforts in this area, thereby having a stronger advocacy voice and leveraging funding.

Trade acceleration. Trade liberalization and trade facilitation remain important aspects of horticulture and tree crops and are critical to Ghana’s path to self-reliance. New evidence from the Center of Global Development on horticulture supply chain highlights the importance of policies that attract multinational investors and retailers and link them to production and export opportunities in the host economy. Trade and investment policies can have large effects if they alter the behavior of even one or a small number of international companies. Therefore, much of the GFSS work will focus on systems, including policy and markets, at a national level in support of increasing trade and private investment. Regulations and standards have become an increasingly important factor affecting the capacity of producers to participate in global markets. Trade activities will include assisting Ghana to improve grades and harmonize standards for selected commodities as well as to enforce Sanitary and Phytosanitary measures. GFSS will continue to promote international science-based trade standards and expand traceability systems for fruits and vegetables, required for food safety in many importing countries. Collaborating with USG regional programs, GFSS will include support for intra-regional and international trade, and will leverage other initiatives for traceability in the fisheries sector.

Combined with continuing to improve the enabling environment, GFSS will identify and collaborate with large first-mover investors whose activities offer the possibility to change the production structure, transform the revealed comparative advantage of the domestic economy, and link Ghana to global supply chains. By hooking into global supply chains and building backwards linkages to local firms and workers, GFSS, in partnership with these firms, will expand Ghana’s access to more lucrative markets, sustainably increasing income and employment opportunities. Trade acceleration activities will provide opportunities for increased engagement with the youth and women. Youth are interested in export opportunities in addition to the auxiliary employment activities. Processing and packaging opportunities for export markets are dominated by female entrepreneurs.

Increasing food safety is not just an export concern, but one local consumers are increasingly demanding. A local “Green Label” certification program, influenced by international standards and promoted by MOFA and the Ministry of Trade and Industry to assure the domestic availability of locally produced high quality, safe, and affordable fresh fruits and vegetables on the Ghanaian market, could be supported with significant civil society, agribusiness, and producer associations’ buy-in. This support will build an ecosystem to enable the successful implementation of the Green Label Certification. Consumer standards will be explored to combat Illegal Unregulated and Unreported fishing.

4.3 Increase Access to Finance (IR 2)

Farmers and downstream agricultural market system actors have little access to debt financing in Ghana. When it is available, the cost of borrowing is high. The interest rate rose steeply between December 2011 and March 2017 as it grew from 12.5% to 25.5% with the current rate at about 20%. Experience under Feed the Future shows that access to finance must be targeted to farmers and small and medium enterprises. GFSS will look for strategic opportunities to support the Ghana Incentive-Based Risk-Sharing System for Agricultural Lending (GIRSAL), designed to increase access to finance by smallholder farmers. Village Savings and Loan Associations (VSLAs) will be formed or strengthened (serving to push clients into more commercial approaches or into new enterprises). Financial literacy and nutrition/sanitation messaging will be modules within the VSLA model. These associations may serve as a starting point to pull women into producer groups or mother-to-mother groups that improve child feeding practices. GFSS will continue to work with financial institutions to help them understand the risks of lending to agriculture, while working with borrowers to increase repayment rates and with the government to strengthen financial sector regulation and supervision. We will look for innovative solutions to reach the "missing middle" consisting of small and medium key supply chain service providers that are too large for microfinance, but too small for commercial borrowing. Unlocking finance for this group can strengthen supply chains/broader market systems. Also, GFSS will explore equity financing, not just access to finance through savings and debt as well as non-traditional financing options. The private sector, including financial institutions and multinationals, has increased investment in both staple and higher-value commodity value chains. Tapping into these sources for partnerships, similar to the African Cashew Alliance, Sahel Grains Global Development Alliance, and DuPont Pioneer partnership, leverages significant additional funding using private capital.

4.4 Promote Resilience (IR 4, 5, CC IR 2)

Shocks to households in northern Ghana are mainly from erratic rainfall, pests, and diseases. These exacerbate ongoing challenges of farmer-pastoralist conflicts, land disputes, and violence in the north pose even greater threats to food security. The governance challenges related to these issues and the important role of local government, civil society, and traditional structures in resolution of these conflicts are important mitigation measures critical to strengthening resilience and food security. Competing interests between farmers and pastoralists over seasonal access to land for cropping and grazing will be mapped in the ZOI and GFSS will use public awareness campaigns to disseminate information on public land classification, allowed and prohibited public land and resource uses, and sanctions for illegal activities or encroachment.

With few alternatives, households that undergo a sudden decline in crop production, face an increase in zero-catch days, or suffer losses from conflict have minimal coping strategies other than selling animals, cutting trees for fuel or income, or relying on family connections. By expanding the livelihood options and risk reduction strategies, GFSS can better ensure that investments to reduce hunger, malnutrition, and poverty are inclusive and achieve more sustainable results. GFSS will identify ways to utilize digital tools to promote resilience. GFSS will draw from lessons and experience under USAID’s Resilience in the Sahel Enhanced (RISE) work in Burkina Faso and elsewhere for applicability to northern Ghana’s population that relies on rain fed agriculture but faces more erratic weather. GFSS plans to provide capacity-building support to further Ghana’s implementation on sanitary and phytosanitary (SPS) to prevent and respond to new shocks from pests and diseases. With increasing demands for water, energy, and other resources, building a population that is food secure must incorporate conservation measures into their livelihoods to safeguard the natural resources on which they are dependent. GFSS will support activities to increase access to water for both productive and household uses. Feed the Future experience has demonstrated successful small-scale irrigation

technologies (e.g. pedal pumps to lift water from small dugouts or reservoirs, well-like water storage technology adapted from India). The Small-Scale Irrigation Innovation Lab has highlighted a number of examples of greater demand by smallholders for expanding their irrigation plots and IFPRI (2011) has shown margins can be attractive in many situations. GFSS will also explore the market opportunities for greater use of irrigation pumps. At the same time, GFSS will track Feed the Future Innovation Lab research in the ZOI that is testing the hypothesis on irrigation-better nutrition/health pathways for any unintended consequences (more mosquitoes leading to malaria, lucrative income from irrigation further marginalizing women's access to productive land, etc.).

The USG will strengthen the shea value chain. For generations, women in northern Ghana have passed on to their daughters the technique of manually harvesting and processing shea nuts into butter. Some of the market systems for GFSS commodities, including exports and financing for the shea value chain, are better developed than others. These more mature linkages can pull more women into this income-producing commodity, much of which is grown in the wild and goes unharvested. Conservation agriculture, such as zero or minimum tillage and direct seeding (to maintain scarce soil moisture), will be part of an agronomic package to smallholders whom plant crops. Introducing other techniques suitable for drier climates and promoting drought-tolerant plant varieties will enable households to improve their resilience. Improving human capital through investment in health, nutrition, and education, including demand-driven workforce development, will enable ZOI populations to lead healthier and more productive lives. Layering agriculture activities with expanded livelihood enterprises, such as selling vegetables or small-scale processing of soybeans, have been shown to benefit households in this population. VSLAs will continue as an important vehicle geared to rural women for saving and generating capital to buy farm and fishing inputs and to run businesses.

Overfishing is a readily recognized problem in Ghana's marine fisheries, and catches due to policy, governance, and operational issues, as well as emerging environmental threats. Actors along the value chain who have long depended on this source of livelihood, are vulnerable to smaller and unpredictable catches. Targeted investments will support regulatory and research institutions to improve fish stock monitoring and develop policies to better regulate marine fisheries and protect the coastal habitat. GFSS will support research, data and modeling needed for evidence-based decisions to manage Ghana's small pelagic fisheries, including "closed seasons" and other control efforts. Producer and community groups will develop skills that enable them to effectively manage fisheries and enhance natural productivity. University research and outreach partnerships will improve understanding, awareness, and adaptation to the emerging impacts of sea-level rise, and warmer and more acidified oceans on coastal ecosystems, infrastructure, settlements, and the productivity of small pelagic fisheries. With their dependence on smaller fish stocks and unsustainable use of mangrove resources, many fishers may need to transition or diversify into other livelihoods, such as aquaculture or vegetable farming. Access to financial products that can help mitigate the risks of economic shocks will be expanded. Due to the co-location of oil and gas interests with many marine fisheries, conflict management strategies will be developed.

4.5 Optimize Economic Inclusion (CC IR 3, 4)

Improving women's opportunities in the agriculture sector will improve the livelihoods of not just women, but communities in the ZOI. Rebuilding marine fish stocks will lead to significant livelihoods gains in processing and domestic trade where women are concentrated, as well as for artisanal fishers. Building a more equitable agricultural sector in Ghana will entail promoting opportunities for women and youth to access key productive resources in agriculture: land, input, credit, and knowledge (whether from formal schooling or from extension services). Despite a history of strong entrepreneurial women in Ghana's markets, most remain disadvantaged relative to men in the intra-household allocation of benefits from agricultural production. The USG will promote women's empowerment and youth inclusion, particularly in production, agribusiness, and through the agriculture-nutrition pathway. By building women's business, leadership, and entrepreneurship skills, they will become more active in producer and processing organizations and lead out-grower businesses. Increasing access to agriculture technologies (e.g., row planting, drip irrigation, fertilizer micro-dosing, aquaculture) and other resources will increase their yields, which doubled for Feed the Future female beneficiaries in the past. Increasing access to technologies, finance, leadership skills, and other resources will enable women to increase their agriculture production and business income. GFSS will assess women's

workloads and control over income and have programming to improve these areas. Women in northern Ghana are given land by their husbands and mostly these plots of land are less fertile and unable to produce sufficient yields to enhance their livelihoods. This situation makes women vulnerable, by preventing them from gaining economic freedom and independence (OXFAM 2015). GFSS will scale up the successful model under Feed the Future of granting women better access to land. An example is where a woman—often a spouse—is given a certificate or other legal document from her husband giving her the right to plant crops on part of the land owned by the male. These medium-to-long term leases can be expanded under GFSS to include male to female siblings or chief to female-headed households so longer-term crops, such as moringa, can be planted on land with greater certainty the land will continue to be accessible. GFSS will strengthen the voices of farmers, fishers, mothers, and youth to productively and proactively engage with local governments to be more accountable and better governed. It is vital for sustained impact to strengthen the capacity of community-based groups to demand accountability from government and be able to sustain their actions and engagement beyond donor interventions. Citizens must be equipped with the tools, skills, and knowledge to inform decisions and be able to engage with their government to provide the requisite services. Economic inclusion can be achieved when citizens are aware of and able to exercise their land and natural resource rights, suitable financing options, and ability to influence policy and management decisions. Focusing on women and youth is not simply a nice thing to do—it is an economic imperative if Ghana wants to move beyond aid.

4.6 Improve Nutrition (IR 6,7,8)

Improving Ghana’s nutritional status, particularly among women and children, will contribute to social and economic improvements in Ghana’s long-term development. Ghana’s National Nutrition Policy guides the Ghana Country Plan, focusing primarily on strengthening sub-national service delivery systems; and promoting behavioral changes to improve nutrition outcomes. The GFSS Country Plan will build on progress made by past and present USAID interventions, which integrate agriculture and livelihood; nutrition; social protection; as well as, water, sanitation, and hygiene (WASH) activities.

GFSS interventions will focus on transforming key community, household, and individual practices that hinder improved nutrition, particularly during the critical 1,000 day window. The Country Plan will implement a multi-sectoral approach for nutrition programming that incorporates agriculture, livelihood, and WASH activities. Value chain activities will incorporate appropriate messaging to ensure a link to improved nutrition so agricultural growth and increased incomes translate to improved dietary diversity. Nutrition-sensitive agriculture approaches aim to increase the food availability, access, and consumption of diverse and nutritious food for households, especially women and children in the critical 1,000 day window, generating income through agribusiness and agro-processing technologies for expenditure on food and non-food items. This also increases women’s empowerment, affecting incomes, caring capacity and practices, and female energy expenditure.

Social and behavior change communication will be a key component across activities, focusing on the key behaviors that need to be changed in order to make an impact on nutritional status, with particular focus on infant and young child feeding practices, breastfeeding, and complementary feeding. Specific approaches will address key determinants of poor nutrition in the region, including the promotion of hand washing, sanitation improvements, promotion of appropriate complementary feeding, and prevention and control of anemia. These approaches will aim to increase male participation in nutrition education through training in essential nutrition actions. Interventions will also improve prevention and treatment of anemia by promoting iron folate acid (IFA) supplementation and exploring sustainable strategies to support fortification and/or household consumption of multiple micronutrient powder for children age 6-23 months.

Considering the negative impacts of poor sanitation on nutrition outcomes, GFSS will promote improved hygiene practices, such as handwashing; safe disposal of human feces; elimination of open defecation using the *community-led total sanitation* approach; and expanding uptake of a newly developed, affordable toilet product called “Digni-Loo” that is socially-marketed in Ghana. To address challenges in access to water, GFSS will work with communities and households, and engage youth where possible to construct low-cost water taps using locally-available materials. In

some cases, GFSS will rehabilitate boreholes, as having a closer water sources also increases women's control over her time for other productive uses, assets, and resources.

Strengthening service delivery is a critical component of the GFSS Country Plan. Interventions will improve the quality of referrals between sub-national structures that provide services that contribute to nutrition outcomes (i.e. health, agriculture, social protection, and WASH) by strengthening coordination between cadres such as health, agricultural extension, and social workers. GFSS will support the GHS to improve the quality of nutrition assessment and counseling services, including the management of acute malnutrition at community and facility levels.

Strategically collaborating with the private sector will enhance outcomes of the GFSS investments. The GFSS Country Plan will leverage private sector partnerships to expand availability of nutrient-rich value chain crops, particularly those grown by women, to increase women's incomes year round, improving their expenditures on diverse, nutritious foods. GFSS will facilitate collaborations between the GHS and private sector partners to explore opportunities to improve food fortification and produce combined IFA tablets and micronutrient supplements for distribution through health facilities. Through interventions aimed at enhancing agriculture productivity and profitability (i.e. D1), GFSS Country Plan interventions will address food safety issues that impact nutritional outcomes, such as aflatoxin and other mycotoxins, by promoting hygienic storage and processing facilities. Food safety will be further promoted through improvements of fish smoking facilities.

GFSS will continue support to one of the government's key safety net programs that provides bi-monthly cash grants to the poorest households, increasing these households' access to food year-round. GFSS has leveraged this program to direct cash grants to the poorest households, comprising pregnant women and children under one-year-old. Moving forward, GFSS support will strengthen linkages between safety net, health, nutrition, and WASH interventions at the community level to accelerate nutrition impacts. Strengthening the social protection system will improve the reach of nutrition programs among the most vulnerable, including populations within the lowest wealth quintile, which experience significantly higher rates of food insecurity, chronic malnutrition, and stunting. GFSS will also support early childhood development interventions -- with a focus on the critical 1,000 day window -- to mitigate the impacts of malnutrition on children's early cognitive development.

4.7 Advance Country Leadership Through Evidence-based Policy Systems and Institutions (CC IR 1, 5, 6, 7)

The USG will support the GOG to increasingly manage and resource its own development path on its journey to self-reliance. The USG will foster locally-led development, mobilizing domestic and other financial resources, and building the capacity of local partners and local systems. Noting increased private sector investment is critical to self-reliance, GFSS will work to improve the private sector enabling environment to increase domestic and foreign direct investment, with an emphasis on attracting investment from U.S. firms and firms interested in exporting Ghanaian agricultural products. This will be complemented by other efforts within GFSS and by the USG to partner with the Ghanaian government to help them enhance effective, transparent, and accountable systems and policies for mobilizing and investing public and private resources to meet the needs of their citizens.

GFSS will build on its long-standing support to Ghana's policy-making processes and enhance capacities in key parts of local and national government to deliver services. A priority area is to support quality data needed for informed decision-making. In a USAID assessment of Ghana's Institutional Architecture for Food Security Policy Change—an analysis of a country's capacity to undertake food security change—the lack of quality data to analyze and monitor policies was highlighted, and expressed by stakeholders in recent consultations, as a weakness that needs to be addressed. In the same assessment and in a report by AGRA, mutual accountability and coordination within the sector was found to be a challenge. The country's commitment to food security will require concerted policy action, from the development of evidence-based policy alternatives to implementation of effective programs. Some of the most important intended policy results include improvements in:

- private sector enabling environment,
- systems that enhance seed development,

- regulations on food quality and safety standards,
- monitoring, managing, and protecting fish stocks,
- increasing the government's agriculture share of its total budget, and
- intergovernmental coordination and increased prioritization of nutrition among the health, agriculture, and social welfare ministries.

GFSS will develop greater capacity for monitoring and evaluation and evidence-based decision-making, with an emphasis on the MOFA. Continued investment will be targeted at decentralized local governments to assist them in delivering services—the GFSS Country Plan seeks to strengthen systems and local governing structures responsible for planning, executing, and coordinating agricultural, nutrition, and resiliency measures at the local level. The multi-sectoral approach the GFSS Country Plan promotes will require investments to facilitate inter-ministerial coordination. Nutrition governance is an example where Ministries of Health; Agriculture; Fisheries; Gender and Children; Local Government; and others can improve coordination across organizations to promote nutrient-rich plant varieties; nutrition-sensitive fishing policies; water, sanitation, and hygiene; health; and appropriate infant and child feeding practices.

4.8 Washington/Regional Investments that Complement GFSS

USAID/West Africa partnerships with regional organizations and institutions contribute to the Ghana GFSS Country Plan results in multiple ways. Regional support for SPS standards increase the quality of goods and enhance regional trade that complements GFSS bilateral commodities. Strengthening regional private sector associations that deepen value chain linkages under Ghana's GFSS Country Plan will enable greater participation by producers, processors, and entrepreneurs. An example is the ongoing partnership USAID/West Africa has with the Global Shea Alliance, which is empowering women to increase their income by having stronger cooperatives and improved access to storage facilities. Another example is the new West Africa Trade and Investment Hub that offers opportunities for increased exports, jobs, investment, and benefits to small-holders by partnering with leading local, regional, and U.S. firms/buyers/processors. Tracking the movement of agriculture commodities along major trade corridors across the region is another area in which efforts of USAID/West Africa complement Ghana's GFSS Plan. Expediting movement of commodities and reducing harassment of small-scale and women traders at target borders can help move groundnuts, which Ghana exports, within the region. For the dry and erratic rainfall found in the ZOI in the north, the Early Warning System of USAID/West Africa's partner, CILSS (Permanent Interstate Committee for Drought Control in the Sahel), maps weather patterns and water tables in order to inform the planting season and generated information on potential droughts. Trade Africa in Ghana is supporting activities that the Plan will build on including developing a traceability system for fruits and vegetables and improving SPS standards and compliance.

Power Africa and the \$498 million **MCC** compact in the energy sector are strengthening infrastructure and helping bring power to more homes, agriculture, and commercial firms. The lack of affordable and reliable power is a barrier to doing business, holding back Ghana's potential for private sector investment and partnership with American and other businesses. Insufficient connectivity, with only 52% of rural Ghana having access to electricity, puts limits on deepening value chain development such as processing commodities and storing higher value crops. An example of Power Africa's direct contribution to increasing agriculture productivity is its investment in a solar facility that powers pumped irrigation and cold storage for crops in northern Ghana.

USDA's Cochran and Borlaug Fellowship programs trained over 40 Ghanaians in the past three years in areas such as food safety, biotechnology and genetics, plant breeding, and nutrition. Continuing to build this technical capacity will be important for Ghana's food security. USDA's expertise in SPS, food safety, agriculture statistics, and trade will contribute to GFSS. The Food for Progress (FFPr) agreements in the poultry value chain provide important benefits to over 100,000 beneficiaries. These activities are centered in Brong Ahafo region and around the urban centers of Kumasi and Accra. Demand for poultry and poultry feed in Ghana outstrips supplies, with approximately one-third or more of the poultry demand (meat, not eggs) met from imports. Poultry is the largest U.S. agricultural export to Ghana

in terms of value, and U.S. industry, including the American Soybean Association, is working with USDA to promote poultry consumption and build awareness.

State/Econ will raise the visibility of key policy issues to higher levels within the USG and the GoG to contribute to overall policy cohesion. The U.S. Department of **Commerce** will facilitate Ghanaian access to U.S. technology, promote agribusiness exports to Ghana, and connect Ghanaian and U.S. businesses. **Peace Corps**, with most of their Volunteers in the northern part of Ghana, will utilize its people-to-people approach in host communities, schools, and other organizations to promote nutrition messaging, vegetable planting, and permaculture farming with an emphasis on integrated water management techniques.

Other USAID/Ghana Programs will be carried out in the ZOI to the maximum extent practical to integrate USAID investments being made for a healthier workforce and families, including family planning that enables women to choose birth spacing and timing, a more educated youth that equips them with basic skills, and a citizenry that has voice by engaging with local communities and leaders to hold them accountable. USAID/Ghana plans to partner with the GoG to increase domestic resource mobilization derived from the economic growth generated by GFSS. These resources can support social safety nets to allow Ghana to support its poorest as donor assistance declines and sustains the gains made under GFSS.

5. Stakeholder Engagement Platforms

The USG conducted a series of stakeholder engagements to develop this plan. Priorities were solicited from 13 GoG ministries. Building on GoG and other stakeholder requests to become much more engaged in the design and implementation of GFSS, USAID established a cross-sectoral GFSS Advisory Group, comprised of thought leaders from government, academia, civil society, producer groups, and the private sector, which will serve as a consultative body with which to review progress, propose ideas, and solicit feedback over the course of GFSS planning and implementation. This advisory committee informed the design and implementation of a two-day stakeholder workshop that brought together over 100 national, regional, and local government officials as well as representatives from civil society, private sector, financial institutions, academia, farmers, fisherfolk, development partners, and international NGOs, which developed ten consensus statements used to inform the program components. Continued engagement with this advisory group will give greater coherence to aligning USG investments with needs.

Given the multi-dimensional approach to reducing hunger, malnutrition, and poverty, working across Ministries and with multiple stakeholders is important. After the 2011 launch of Scaling Up Nutrition (SUN) in Ghana, a multi-sectoral platform was established. While the SUN group and associated Donor Partner group have not yet achieved the goal of effective coordination and harmonization across ministries and in the private sector; the groups were reactivated in the last year and are working to raise nutrition priorities in relevant ministries by establishing nutrition champions. Already, DP coordination has improved greatly. At the sector level, the Agriculture Sector Working Group (ASWG), chaired by MOFA, coordinates interventions of government, development partners, civil society, and the private sector. The Group's effectiveness is hampered by inadequate funding to support more substantive coordination and mutual accountability, such as regular Joint Sector Reviews. With USG's active participation at the sector level and leadership of Heads of Cooperation, it can advocate for greater participation of non-state actors. Also to be explored is the re-establishment of the Mole Series high-level dialogue in which Heads of Cooperation and the regional ministers in the three northern regions meet annually to review priorities, progress, and issues that advance development in the north. Closer to the ZOI level, a recent review of the Northern Sector Agriculture Investment Coordination Unit in Tamale, which brings together a wide array of relevant stakeholders to discuss, learn, and share ideas, gave the Unit high marks for its performance.

6. Adaptive Design and Implementation

As a GFSS multidisciplinary design and implementation team, GFSS will proactively engage with government and non-government stakeholders to anticipate and plan for shocks and course corrections. GFSS will improve resilience of

smallholder farmers and fishers by building into the program design and procurement strategy a high degree of programmatic and operational flexibility. This flexibility will allow activities implemented under GFSS to respond quickly and effectively, in partnership with key stakeholders, to the reality on the ground. As such, GFSS commits to working as a multidisciplinary team, including USAID's Office of Acquisition and Assistance, during the design phase to ensure adaptive and flexible language is contemplated and incorporated into the activities and procurement tools to the maximum extent possible. Furthermore, to limit climate related risks to program implementation, such as changing rainfall patterns decreasing food security, temperature stresses on value chains or impacts on nutritional outcomes, the GFSS design and implementation team will conduct climate risk management screening, as outlined in USAID ADS 201, to identify and address identified risks on program implementation.

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