FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

Global Food Security Strategy (GFSS)

Nigeria Country Plan

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Acronyms

CBN	Central Bank of Nigeria
CDCS	Country Development Cooperation Strategy
DFC	US International Development Finance Corporation
DHS	Demographic and Health Survey
DO	Development Objective
EU	European Union
FAO	Food and Agriculture Organization
FCDO	Foreign, Commonwealth and Development Office
FCT	Federal Capital Territory
FEWS-NET	Famine Early Warning Systems Network
FMARD	Federal Ministry of Agriculture and Rural Development
FTF	Feed the Future
GDP	Gross Domestic Product
GFSS	Global Food Security Strategy
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GON	Government of Nigeria
HPN	USAID Office of Health Nutrition and Population
ICT	Information and Communication Technology
IDPs	Internally Displaced Persons
IFAD	International Fund for Agricultural Development
IFPRI	International Food and Policy Research Institute
IITA	International Institute for Tropical Agriculture
IOM	International Organization for Migration
ISIS	Islamic State in Iraq and Syria
ISWA	Islamic States of West Africa
JICA	Japan International Cooperation Agency
LGA	Local Government Area
MPI	Multidimensional Poverty Index
MSME	Micro, Small, and Medium Enterprises
NAIP	National Agriculture Investment Plan
NATIP	National Agricultural Technology and Innovation Plan
NBS	National Bureau of Statistics
NDC	Nationally Determined Contribution
NGO	Nongovernmental Organization

RF	Results Framework
RFS	Bureau for Resilience and Food Security
RFZ	Resilience Focus Zone
RUTF	Ready-to-Use-Therapeutic Foods
SBC	Social and Behavior Change
SDG	Sustainable Development Goal
SHF	Smallholder Farmer
SME	Small and Medium Enterprises
SpO	Special Objective
SUN	Scaling Up Nutrition
U.S.	United States
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
USADF	United States African Development Foundation
USAID	United State Agency for International Development
USDA	U. S. Department of Agriculture
USG	United States Government
WASH	Water, Sanitation, and Hygiene
WFP	World Food Program
WHO	World Health Organization
ZOI	Zone of Influence

A. Country Context

Building upon the lessons learned from the 2018-2023 Global Food Security Strategy (GFSS) Nigeria Country Plan, the United States government (USG) is adapting its strategic approach to supporting Nigeria's food security goals by ensuring a more targeted and effective use of resources. In the context of numerous and mounting challenges facing the Nigerian economy and people, intelligent planning around food security is more important than ever. Insecurity, characterized by insurgency, kidnapping, and banditry, continues to impede economic activity including farming on which rural Nigerians rely for sustenance and livelihoods. Further, climate-related risks such as flooding and drought have begun manifesting in Nigeria. Severe nationwide flooding in 2022 destroyed crops, farmlands, properties, and lives, and persistent continuing droughts exacerbate farmer-herder tensions. Finally, a rapidly depreciating currency and record inflation, caused by sluggish post-COVID recovery, the Russian invasion of Ukraine, and the immediate effects of recent government reforms, combine with a deficient social protection system to exacerbate poverty and erode purchasing power.

Recognizing that new shocks are inevitable, the 2024-2029 GFSS adopts a market system approach to achieve three overarching goals: increase the productivity and competitiveness of selected value chains (maize, rice and horticulture) and markets by building capacities of agri-businesses, removing barriers to investments, and developing innovative financial products; enhance the capacities of vulnerable households to respond to and recuperate from shocks through increased productivity and adaptation; and improve access to nutritious and high-quality food by investing in and training regulatory agencies on food sanitary and phytosanitary measures. These programs are underpinned by a programmatic approach which includes cascading risks, deployment of innovative techniques and inputs such as drought-tolerant grain crops, ensuring inclusive development by including women, youths and the disabled, leveraging local knowledge and systems in program design and implementation, and leveraging networks to ensure collective action in line with USAID's "Progress Beyond Programs." For instance, USAID can help galvanize programs like the African Development Bank's $540 million Special Agro-Industrial Processing Zone initiative through private-sector engagement and collaboration with the host government. This comprehensive approach will help ensure that investments are complementary while maximizing impact.

A.1 Overall country context

Agriculture is the largest sector within Nigeria, accounting for almost 24 percent of the country's gross domestic product (GDP) (NESG, 2023). Eighty percent of Nigerian farmers are considered smallholder farmers and account for approximately 90 percent of agricultural production (IFAD, n.d.). The country's staple crops are cassava, maize, millet, rice, sorghum, and yam and cover approximately 65 percent of cultivated areas (Global Yield Gap Atlas, n.d.). Agriculture employs almost 50 percent of the working population (NESG, 2023) and an additional 14 percent of the working population is employed in the off-farm agri-food system (Andam et al., 2023). In total, the agri-food system contributed 23.1 percent of Nigeria's GDP, more than any other sector including oil (NBS, 2023). Despite the dominance of agriculture and the agri-food system in terms of employment and economic activity, public expenditures do not reflect the sector's importance. In 2023, the budget allocation for agriculture was only 1.05 percent of the national budget; this is the smallest share of the budget allocated to agriculture in seven years.

Nigeria continues to face significant food security challenges, driven by exponential population growth, skyrocketing prices of essential food products, natural disasters, extreme weather conditions, food loss during and after harvest, and ongoing crises across Nigeria. With over 80 percent of Nigeria's

farming population depending on rain-fed agriculture as their primary occupation, there is an increased risk of lower food production due to the impact of climate change and conflict. Climate change contributes to migration, increasing competition, and conflict over natural resources—especially land and water. One example is the ongoing farmer-herder conflict where, due to desertification and water depletion in the North, nomadic herders are shifting herds further south in search of water and better grazing opportunities for their animals. Often, this leads to violent conflict with farmers resulting in a decline in food production (PWC, 2020). Nigeria suffers from growing insecurity and violence, with rural farming areas being adversely impacted. Availability and access to food is severely disrupted because of insecurity and violence, especially within conflict-affected states. This contributes to uncertainty in the national food supply and a loss of income for farmers. For instance, violence and insecurity in the Northeast, especially in Adamawa, Borno, and Yobe States, resulted in 4.4 million people facing acute hunger; 2 million children suffering from acute malnutrition; and 2 million people being displaced (OCHA, 2023).

Exacerbating this issue, the lingering impacts of the COVID-19 pandemic, the Ukraine crisis, and macroeconomic policies added another dynamic to food insecurity in Nigeria. COVID-19 and the conflict in Ukraine affected all sectors of the country's economy and reduced the ability of Nigerians to produce food locally, leading to the importation of food supplies. Small and Medium Enterprises (SMEs) in Nigeria experienced increased energy costs which impacted operations, affecting both the supply and demand of products and services provided. The Russian invasion of Ukraine increased fertilizer prices leading to higher food prices and lower incomes for farmers (IISD, 2022).

On the macroeconomic policy side, a hastily rolled-out redesign of the Naira (the Nigerian currency) in December 2022 decreased the number of bills in circulation and encouraged hoarding, causing increased food insecurity due to cash scarcity. The impact of the redesign was particularly harsh on rural Nigerians as only one-third have bank accounts, leaving many unable to access electronic methods of payment. The shortage of Naira notes left people unable to pay for goods and services, especially in the informal economy which is 70 percent cash reliant. In one example from the Northeast, smallholder farmers were forced to lower the prices of their harvests by 50 percent to make any sales and gain access to cash.

Furthermore, in June 2023, during the first month of President Tinubu's administration, he ended two controversial policies: the fuel subsidy and the parallel exchange rate. While these changes should strengthen the foundation for long-term economic growth, they have had detrimental short- and medium-term impacts on food security. As of February 2024, inflation is at 35 percent, the Naira has devalued to 1536.57 Naira to 1 USD (from 450 Naira to 1 USD in May 2023), the price of one kilogram of rice has increased by 81.35 percent since the reforms, and petrol prices have increased by 313 percent.

International agricultural trade is key in generating farmer income and an important tool to bolster food security. However, Nigeria has maintained longstanding food and agricultural import and export bans on a wide variety of products including maize, poultry, meat, eggs, vegetable oils, and noodles. These bans contribute to underinvestment in the agricultural sector, smuggling, and food insecurity. The country also maintains high tariffs and additional levies on imports, which raise prices for consumers and seem to have little effect on the stated policy goal of stimulating domestic production. Food safety has become an important precondition to export markets and can be a limiting factor to the competitiveness of the agriculture sector of Africa. As Nigeria moves towards implementation of the African Continental Free Trade Area (AfCFTA), food safety and sanitary/phytosanitary standards, if not addressed proactively, will be hindrances to the AfCFTA and to increased Intra-African trade and food security.

A.2 Poverty, hunger, and malnutrition

Poverty

The National Bureau of Statistics' 2022 Multidimensional Poverty Index (MPI) Survey determined that 63 percent of persons (133 million) in Nigeria experience multidimensional poverty[1]. Inequalities exist across geographic regions, with the North significantly more impoverished than the South. Sixty-five percent of the poor (86 million) live in the North, while 35 percent (nearly 47 million) live in the South. Poverty levels across states vary significantly, with multidimensional poverty ranging from a low of 27 percent in Ondo to a high of 91 percent in Sokoto. Multidimensional poverty is higher in rural areas, where 72 percent of people are poor, compared to 42 percent in urban areas. Half of the poor population are children (0-17 years).

Poverty in Nigeria is persistent and worsening - the country ranked 163 out of 191 countries in the 2022 United Nations Development Programme's (UNDP) Human Development Index (UNDP, 2023), a fall from its ranking of 152 out of 188 in 2015. According to the Nigeria National Living Standards Survey (NLSS) collected before the COVID-19 pandemic, 40 percent or about 83 million Nigerians live below the national poverty line of $371.20 per year (NLSS, 2019). The COVID-19 pandemic and associated macroeconomic conditions pushed 3.8 million more Nigerians below the poverty line (Ibid., 23). While the differences in poverty between genders vary across different age classes, women of childbearing age (20-44 years) are more likely to be impoverished than men of the same age (Ibid., 32).

Food Insecurity

Nigeria ranks 103rd out of 121 countries on the 2022 Global Hunger Index (GHI, 2022); this represents a slight improvement from the 2014 GHI. Despite efforts by the Nigerian government and the humanitarian community to stabilize food security, 4.3 million people continue to depend on food assistance (FMARD, 2023). Preliminary findings from the 2021 national food consumption and micronutrients survey indicated that 79 percent of the sample households were food insecure (FGN & IITA, 2022). Of those who were food insecure, 22 percent were severely food insecure, meaning they went without eating for a full day because of a lack of money or other resources.

Higher poverty and macroeconomic policy in Nigeria are expected to worsen food security. If urgent actions are not taken immediately (UNICEF, 2023), it is expected that approximately 25 million Nigerians will be at risk of hunger in the third quarter of 2023 during the lean season. Medium-term estimates from FEWS-NET show that throughout 2024, the Northwest and extreme Northeast portions of the country are predicted to experience crisis-level extreme food insecurity, a pattern that has been consistent over the past several years (FEWS-NET, 2023).

Malnutrition

Malnutrition has been described as Nigeria's "silent crisis": it contributes to 45 percent of all child deaths (WHO, 2021) - approximately 380,000 deaths per year (UN, 2023). Thirty two percent of children under five in Nigeria are stunted, one of the highest burdens of stunted children in the world (UNICEF, 2023). There are significant regional differences in malnutrition rates. The proportion of children who experience wasting is about twice as high in the Northeast (10 percent) and Northwest (9 percent) as it is in other zones (4-6 percent) (NPC, 2019). Stunting follows similar patterns, with higher rates in the Northeast and Northwest than in the rest of the country (Ibid.). The inequality between rural and urban regions also reflects this trend, with rates of childhood stunting, wasting, and being

[1] An index that measures the percentage of households in a country deprived along three dimensions – monetary, education, and infrastructure – to capture a more complete picture of poverty.

underweight far higher in rural children under five (45, 8, and 27 percent, respectively) compared to their urban counterparts (27, 5, and 15 percent, respectively) (Ibid.).

Serious malnutrition problems also affect adult women, with regional variation; 13.5 percent of women in the Northeast suffer from acute malnutrition compared with 2.6 percent in the Southeast. Micronutrient deficiencies also widely affect the Nigerian population: anemia is present in 62 percent of children; 41 percent of adolescent girls (aged 10-14 years); 55 percent of women of reproductive age (aged 15-49 years); and 86 percent of pregnant women. Half of Nigerian women of reproductive age do not consume the recommended diet, which includes at least five out of ten food groups (FGN and IITA, 2022). Cultural and social norms that restrict women's decision-making, financial independence, and household food purchases also contribute to the poor health and nutritional status of both women and children.

Poor childhood nutrition in Nigeria is driven by poor maternal nutrition and health, poor breastfeeding and complementary feeding practices, frequent infection and illness, especially among children under two years of age, food price spikes, and a lack of diversity in household diets. The incidence of child marriage and adolescent pregnancy has profound negative consequences for the nutrition and well-being of adolescent girls and their children in Nigeria (UNICEF, 2023.).

Only 29 percent of infants 0-5 months old are breastfed exclusively, meaning the majority are introduced to complementary foods before the age of six months (Federal Ministry of Health, 2020). Combined with poor water, sanitation, and hygiene conditions in their communities, this practice exposes children to unhygienic feeding conditions and vulnerability to illnesses. Infant and young child feeding practices throughout the country are extremely poor, with only about 18 percent of children under two receiving an appropriately diverse diet (NPS and IPC, 2019. 279).

The Government of Nigeria (GON), in partnership with UNICEF, USAID, and others, is developing an integrated program to address acute malnutrition. Ready-to-use therapeutic food (RUTF) is integral to this approach; RUTF is an energy-packed paste made from peanuts, oil, sugar, milk powder, and vitamin and mineral supplements to treat cases of severe acute malnutrition (SAM). According to UNICEF, since 2009, more than 1.7 million cartons of RUTF, valued at roughly $85 million have been imported and distributed to sites treating children with SAM in Nigeria (UNICEF, 2022).

In Nigeria, dietary diversity is low (Sethi, 2020). Starchy staples represent the largest share (62 percent) of energy in the population's diet, followed by oils and fats (12 percent), pulses, nuts and seeds (9 percent), fruits and vegetables (7 percent), and finally animal-source foods (6 percent) (FMF & WFP, 2022). Diets are also characterized by excessive consumption of food energy in the form of added sugar and fats with little consumption of essential nutrients. The high cost of food contributes to poorer households having less dietary diversity than wealthier households (IISD, 2022). Rural households in the North consume far less diverse diets than rural households in the South (Liverpool-Tasie et al., 2023).

Improper sanitation and hygiene also contribute to poor nutrition outcomes; diarrhea from poor food safety prevents nutrient uptake, and aflatoxin contamination from improper postharvest storage can cause stunting and increase cancer rates (WHO, 2023). Obesity is also a growing problem in Nigeria, with 25 percent of Nigerians being overweight or obese. This is particularly evident in urban communities and among women and is related to an increase in sedentary lifestyles as well as increased access to processed foods (Adeloye et al., 2021). Nationally, obesity is more prevalent among women than men, with the respective rates being 20 and 13 percent (NPS and IPC, 2019). In urban zones obesity is more widespread than in rural areas, with rates of 27 and 16 percent, respectively (Ibid.).

A.3 Greatest constraints within the agriculture and food systems

Food supply

In Nigeria, there are many constraints to the agriculture and food production systems that present challenges to farmers and exacerbate food insecurity. These include changing climate patterns that lead to drought, flooding, and changes in rainfall patterns, access to and knowledge of farming inputs, technology, and best farming practices, and access to financing and commodity markets, food storage facilities, value-added processors and manufacturers. These challenges are interrelated and compounded by global economic trends, and political and domestic economic challenges that impact Nigeria's agriculture sector.

On the downstream end, lack of access to markets, food storage, and processing facilities as well as inadequate transportation infrastructure remain barriers. Such barriers result in post-harvest losses. For example, maize crops generally suffer from a 30 percent loss due to inadequate storage and distribution facilities. Rain-fed crop production accounts for 94 percent of agricultural production. Climate change has already resulted in a 20 percent loss in the number of growing days in some areas of Nigeria. Warmer temperatures also make the storage of root crops and vegetables more difficult for those without access to refrigeration, further increasing post-harvest losses and food insecurity.

Lack of availability and uptake of drought, pest, or pathogen-resistant seeds has been a constraint for much of Nigeria across many of the key value chains. Investing in improved seeds and farmers' willingness to utilize them would enhance yields, consequently boosting production further (PWC, 2021). Other challenges include poor agronomic cultivation practices, poor extension service delivery, lack of access to technology and mechanization such as tractors, and difficulty in accessing financing.

Another major constraint to agricultural growth is a lack of inputs into agricultural value chains. A general lack of inputs (seeds, fertilizer, etc.) results in low yields per hectare. Nigerian agri-input policies lack consistency and continuity, which negatively affects supply chains, including disrupting distribution costs, fertilizer prices, and farmers' access to inputs. Nigeria is one of the leading producers of fertilizer in sub-Saharan Africa. However, fertilizer utilization rates are below 20 percent. Poor infrastructure, access to finance, lack of available extension services, high fertilizer prices, security threats, and lack of quality control affect the proper use of fertilizer for optimum results (IFPRI, 2022).

In Nigeria, several private firms are currently investing in domestic fertilizer production. The 2016 Presidential Fertilizer Initiative aimed to make fertilizers affordable to farmers through locally sourced production of nitrogen, phosphorus, and potassium fertilizer. Currently, there are 58 fertilizer blending plants and four urea manufacturing plants available in Nigeria with capacities of about 12 million and 7 million metric tons, respectively (IFPRI, 2022). For instance, Dangote Fertilizer Plant has a production capacity of three million tons of granulated urea per year. Other large manufacturing fertilizer plants include the Indorama Eleme Petrochemicals Limited with an annual production capacity of three million tons, and Notore Chemical Industry, with an annual production capacity of 500,000 tons (Notore, 2020). Despite the 2016 Presidential Fertilizer Initiative, the price for fertilizer was twice the price specified in the initiative toward the end of 2021, and more than triple the price in 2022 (IFPRI, 2022).

Horticulture, maize and rice are three critical value chains in Nigeria; the following outlines production trends and key issues for each. Additional detail is provided in Annex 2.

The horticulture value chain provides healthy, nutrient-dense foods to Nigeria's population and accounts for almost one-third (30 percent) of GDP from the agri-food system in Nigeria (Andam et al., 2023); however, it remains seriously constrained by low productivity and high post-harvest losses. The horticulture value chain is labor- and input-intensive. However, it has the potential to provide an important source of income to smallholder farmers, particularly women. Nigeria is a leading producer of several major fruits and vegetables, including pineapples, mangoes, papayas, bananas, tomatoes, onions, and chilis. However, post-harvest handling and low yields tend to be a persistent issue due to untreated manure-based soil amendments as well as poor transportation, storage, and sanitation (USAID, 2022).

High post-harvest losses characterize horticulture value chains, with 76 percent of tomatoes grown in Nigeria lost along the supply chain. This represents the equivalent of nearly 450,000 hectares of lost production (Sethi, 2020). The largest contributors to post harvest losses are at the transport, handling, storage, and processor stages which contribute to 41 percent of all tomato waste (Ibid.). This underscores the significant need for improved logistics and transportation, developed cold chains, more efficient market linkages, and a reliable agro-processing industry. Reducing these losses in transportation, handling, storage, and processing stages can provide the opportunity for Nigeria to become a net-exporter of tomatoes, improving food security for farmers, and reducing greenhouse gas (GHG) emissions caused by food waste.

Maize is one of Nigeria's most important crops. Maize production in Nigeria has experienced some growth in recent years, with approximately 12.8 million tons produced in 2021-2022, which is higher than the five-year average of 11.9 million tons, but lower than the country's target of 15 million tons (USDA, 2023; Nigerian Economic Summit Group, 2023). This gap can be attributed to production practices i.e., overall low adoption rates of improved maize varieties that are stress-tolerant, and lack of access to adequate fertilizer inputs. Maize plays a significant role in determining food supply for the population, food security for the country, and providing income for subsistence farmers. Additionally, the maize value chain plays a key role in the local cereal markets and is an important ingredient in infant and young children's food, particularly within the production of processed and packaged foods. Investing in this value chain represents an opportunity to improve food security and caloric availability within this population (IFPRI, 2022).

Rice is another key staple crop in Nigeria and is one of the most consumed staples within the country, meaning that it is an important component of many households' diets. Rice production in 2022-2023 was just over 5 million tons, which is consistent with the 5-year average, but still lower than the country's target of 10 million tons (USDA, 2023). Nearly all the rice produced in Nigeria is consumed locally and it is supplemented by imports necessary to meet demand (ITA, 2021). Historically, government subsidies to farmers, tariffs, and import bans, especially on maize and rice attempted to increase domestic production and consumption; however, the impact of these policies has been minimal. Other issues such as poor post-harvest handling and milling operations led to lower quality rice and higher costs, which resulted in a higher demand for imported rice (Chemonics, 2012). In recent years the Nigerian government has made a substantial investment through their National Rice Development Strategy that mitigated many of these issues and improved the quality and quantity of rice.

Food environment

Despite the large size of the agricultural sector, exports are small compared to other industries such as oil. In 2022, agriculture made up about two percent of the total value of exports while oil made up about 79 percent of exports (NBS, 2022). Nigeria is a net food importer with major imports consisting

of wheat, sugar, fish, and milk. The agricultural trade deficit widens each year, making food security in the country increasingly vulnerable to international price shocks. According to the World Bank's 2020 Food Smart Country Diagnostic, Nigeria does not currently produce enough food to sustain its rapidly growing population, which is projected to double by 2050. A lack of investment in agriculture and infrastructure contributes to food insecurity, with food produced often unable to meet demand, food safety standards, or markets in populated areas.

Foodborne hazards are a key concern in many primary agricultural products. The presence of aflatoxins for rice and maize, along with other cereal and legume crops, is of great concern. Aflatoxins are naturally occurring toxins produced by fungi and are a carcinogen and a growth inhibitor for children (contributing to stunting). For some horticultural products, bacterial contamination (specifically salmonella) is a concern, as it can lead to severe illness and secondary conditions like dehydration, especially for children. A recent study funded by USAID Nigeria's Feed the Future Initiative assessed food safety issues specifically in Northwest Nigeria (Global Alliance for Improved Nutrition, 2021). The study found that the potential risk of exposure to, and impact from aflatoxins, is greatest for rice and maize in Northwest Nigeria, and that average levels of daily exposure from purchases of these raw cereals in local markets exceed the provisional maximum tolerable daily intake level. Similarly, the risk of contracting salmonella from raw horticultural produce, specifically tomatoes, purchased in local markets is high when compared to the risk associated with hygienically handled produce (Ibid.).

A lack of attention to food preparation standards exacerbates the risks of foodborne hazards described above and can limit the nutrient content of food being consumed, thus impacting overall nutrition (Global Alliance for Improved Nutrition, 2021). Adequate heat, for example, can kill salmonella, and yet not all horticultural products are cooked at high enough temperatures or for long enough to address this hazard. The recently enacted National Food Safety Act (the development of which was supported by the USDA/FAS) will invest in developing guidelines, human capacity, and regulatory systems to proactively improve food safety and to address concerns within specific supply chains.

Food and water

Nigeria is endowed with significant freshwater resources, however, poor watershed management, drought, and desertification due to climate change are driving water scarcity. In the North, water stress is increasing due to heightened municipal and irrigation water demands and declining groundwater levels. Expansion of cropland and dams in the northeast reduce wetland areas, harm ecosystems, and exacerbate regional security challenges. Water scarcity threatens urban and rural development with rapidly rising water supply costs, reduced reliability of water supplies, and increased costs of irrigated food production. Flooding is the most common natural disaster and is projected to worsen with climate change. It threatens communities, livelihoods, and infrastructure due to poor urban planning and inadequate stormwater management coupled with sea level rise in coastal areas. Additionally, water sources are under serious threat from inadequate catchment management and oil extraction/processing leading to widespread pollution and poor water quality. Limited coordination, funding, and low technical capacity impede effective water resource management and planning.

Water is another significant challenge to smallholder farmers across the country, particularly in areas susceptible to climate change-related events such as flooding and drought. Investments in water storage, irrigation infrastructure, and water management strategies, are likely to be highly beneficial in helping farmers manage water resources as the impacts from climate change continue to be relevant. USAID has recently invested in water resources; for example, in 2020 the Water for Agriculture program was implemented and provided smallholder crop farmers and livestock herders with new irrigation and

water storage infrastructure, better management strategies, and skills for conflict mitigation between farmers and herders (U.S. Mission Nigeria, 2022).

A.4 Risk and resilience context

Resilience

Northwest Nigeria is characterized by several environmental, health, and social crises, including flooding, disease outbreaks, banditry, and kidnappings. More recent shocks include insecurity, wildfires, cattle rustling, and inflation caused by the economic downturn (NPS and IPC 2022). During the COVID 19 pandemic, the Government of Nigeria (GON) announced a lockdown that affected the greater economy. More than 67 percent of households in Nigeria reported decreased income and households engaged in livestock activities sold livestock to cope with the impact (Siwatu et al, 2020).

Continuous desertification due to overgrazing and extensive cultivation has rendered some lands unproductive. This contributes directly to resource-based conflict between farmers and herders, and the ensuing conflict has resulted in the displacement of over 1.2 million individuals, from Nigeria and Niger, according to the International Organization for Migration (IOM, 2015). The International Crisis Group (2017) points to issues of land and water use, obstruction of traditional migration routes, livestock theft, and crop damage as triggering disputes between farmers and herders. These flashpoints for conflict come against the backdrop of more structural issues: drought and desertification have degraded pastures, dried up many natural water sources across Nigeria's far northern Sahelian belt, and forced large numbers of herders to migrate south in search of grassland and water for their herds.

Conflict in Northeast and Northwest

Conflict severely disrupts the socio-economic livelihoods across the three geo-political zones of Northwest, Northeast, and North-central Nigeria (Adegbami, 2021). Such conflict is driven largely by religious tensions, insurgencies, disagreements between herders and farmers, increased competition for land, and the impacts from internally-displaced people (in the Northeast). Increasingly brazen and frequent cases of armed banditry are a major challenge to security, particularly in Kaduna, Sokoto, and Zamfara in Northwest Nigeria. In the last eleven years, multiple casualties have been recorded, with millions lost to banditry.

Amnesty International reported that in 2022, over 60,000 people experienced forced evictions from their homes, with at least 6,900 individuals killed, 6,100 abducted, and 2,000 forcibly transferred or internally displaced. In the Northwest, insecurity drove more than 453,000 people from their land. Such violence left nearly three million people in the Northwest critically food insecure and that figure could increase to 4.3 million people in the third quarter of 2023.

Climate change

Climate change has impacted Nigeria in several ways over the past century. A mean temperature increase of 1.1 degrees Celsius was observed in Nigeria between 1901 and 2005, while mean annual rainfall decreased by 81 mm (Akpodiogaga-a and Odjugo, 2010). A rise in sea level has inundated 3,400 square kilometers of coastal zone lands, while desert encroachment reduces arable lands in the northern part of the country by up to 10 km per year (Ibid.). In October 2022, Nigeria witnessed the most devastating episode of seasonal floods in a decade, causing over 600 deaths and 1.3 million displacements. The loss of crops due to heavy rains further exacerbated the level of food insecurity in the country (UN News, 2022). The floods affected 34 out of the 36 states in the country, with over 200,000 houses either partially or completely damaged (Ibid.).

Nigeria is among the top ten countries globally facing the threats of climate change, including rising temperatures, flooding, landslides, erosion, and drought (IFPRI, 2022). These climate impacts have significantly affected the agricultural sector, leading to shifting growing seasons, decreased productivity, and greater post-harvest losses. Coastal regions experience increased rainfall, while the semi-arid interior faces declining rainfall (Lada, 2014), contributing to desertification, drought, and flooding across the country. While climate change is a global issue, its impacts on producers are localized and call for locally-appropriate solutions. For example, drought-tolerant seeds and improved irrigation systems within selected value chains can be vital tools for strengthening climate resilience.

A.5 Inclusive development

Gender equality and women's economic empowerment

The role of Nigerian women in agricultural production and development is crucial to the success of the sector. Women represent 37 percent of Nigeria's agricultural labor force (Christiaensen, et al., 2018: 61). Although women drive food processing, marketing, and preservation activities they mostly occupy the least profitable segments of value chains and remain predominantly subsistence farmers.

Despite their significant contributions, women face challenges in accessing land, credit, inputs, training, and technology. Many work in the fields without pay, have limited decision-making power, and are subject to sexual and gender-based violence. Agricultural policies often overlook women's role in value chains and fail to consider their influence on household decisions related to productive assets and nutrition. This leads to female farmers being sidelined in the development of policies aimed at increasing food security and production (Ibid.).

In 2019, the GON launched the National Gender Policy in Agriculture. The policy aims to promote the adoption of gender-sensitive and gender-responsive approaches in the agricultural sector and ensure that men and women have equal access to, and control of, productive resources.

Youth

Nigeria, with its large population and youthful demographic, holds the potential for a demographic dividend. However, a youth bulge could be a double-edged sword, either addressing economic challenges or fueling social unrest. In 2023, the country's youth aged 15-35 made up 34 million of the population, and a staggering 13.9 million youth are unemployed.

While agriculture offers a pathway to tackle youth unemployment, only 22 percent of Nigerian youth are willing to participate in this sector (NBS, 2023). Despite the uncertainties of 2020, the agricultural sector contributed around 20 percent to Nigeria's GDP, helping the country emerge from recession in Q4 2020. In 2021, the sector's contribution rose to 26 percent, with a growth rate of three and a half percent.

The National Agricultural Technology and Innovation Policy (2022-2027) creates opportunities for youth by empowering them in various areas, including renewable energy for agriculture, rural development, digital agriculture, good agricultural practices, and agriculture enterprise development. By focusing on these aspects, Nigeria can tap into the potential of its youth and address the challenges of unemployment while fostering sustainable growth in the agricultural sector.

Small and Medium Enterprises (SMEs)

According to the Ministry of Industry, Trade, and Investment, Nigeria has over 39.5 million small, and medium enterprises (SMEs), which account for more than 84 percent of total jobs in the country and about 48.5 percent of the GDP. SMEs export approximately 7.27 percent of goods and services out of the country. Because of their importance to the larger economy, SMEs development in agriculture,

manufacturing, and services can potentially drive overall GDP growth and act as catalysts to bring about socio-economic transformation.

SMEs are a key driver of job creation and social mobility for low-income individuals working in agricultural and non-agricultural employment. The COVID-19 pandemic and recent increases in energy costs (diesel) significantly impacted the operations of SMEs in Nigeria, which affected both the demand and supply of products and services provided by companies. A survey by the Fate Foundation in 2021 on the state of entrepreneurship in Nigeria showed that inadequate infrastructure, insecurity and poor access to finance are the major constraints to business growth and performance (Fate Foundation, 2021).

A.6 Country priorities

In August 2023, President Bola Ahmed Tinubu named Abubakar Kyari as Minister of Agriculture and Food Security; however, it is not yet clear the priorities the new government will pursue in the agricultural sector. On July 13, 2023, President Tinubu declared a state of emergency for food security. In his statement he signaled the importance of agriculture by announcing that all matters pertaining to food and water availability and affordability be included within the purview of the National Security Council.

To promote increased domestic production, the National Development Plan (2021-2025) ensures a significant increase in Nigeria's agricultural development by prioritizing public- and private-sector investments in technology, innovation, and adopting climate-smart agriculture. The plan aligns with the Comprehensive African Agricultural Development Programme and the commitment to achieve the Sustainable Development Goals, especially on eliminating poverty and achieving zero hunger through inclusive growth and sustainable utilization of natural resources. This forms the rationale for adopting a multi-stakeholder approach in the 2022-2027 Agricultural Technology and Innovation Policy (NATIP). The policy establishes a pathway to ensure resilience, recovery and growth, shift from subsistence farming to modern agriculture (strengthening national food security), contribute to national economic diversification, and create at least 12 million jobs. NATIP is expected to override the impacts of current and lingering economic shocks (e.g., inflation, COVID-19, Russia-Ukraine conflict, and flooding) by building on existing economic gains and helping sustain a sufficient food supply for all Nigerians.

The GON's Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change includes a strong focus on economic diversification away from fossil fuels. The objective is to contribute to climate change mitigation, improving the efficiency of agricultural production while decreasing emissions from agriculture, forestry, and other natural resource sectors. The updated NDC, submitted in 2021, emphasizes nature-based solutions to decrease emissions while generating adaptation co-benefits. Specifically, relevant to the priority value chains identified in this GFSS, the NDC commits to managing oxygen levels of rice paddy fields to reduce GHG emissions (Federal Ministry of Environment, 2021).

The GON cited access to credit and finance as key opportunities for rural development (NDP, 2021). Initiatives like the Agricultural Credit Guarantee Scheme Fund and the Growth Enhancement Support Scheme improve farmers' access to finance, inputs, and technical support. The GON launched its flagship agricultural program, Anchor Borrowers Programme (ABP), in 2015 to strengthen select agricultural value chains and drastically cut the country's food import bill. The ABP – administered by the Central Bank of Nigeria (CBN) covers crops ranging from rice to sorghum, millet, maize, oil palm, cashew, and cassava. The ABP provides loans at a nine percent interest rate, and farm inputs like

fertilizers, seedlings, pesticides, etc. to smallholder farmers. The program also links agro-processors with farmers to offtake produce and strengthen farm to market linkages. As of February 2023, the GON disbursed $1.4 million in loans; more than 52 percent of those loans have been repaid (CBN, 2023). However, as of [Month, Year], as part of the Tinubu Administration's monetary policy reforms, the CBN, while continuing to honor existing loans, has closed the ABP to new borrowers.

The GON has undertaken several agricultural reforms and nutrition strategies to boost food production and decrease malnutrition. In an attempt to reduce food import dependency, Nigeria adopted agricultural policies to diversify the economy and increase domestic production of staple crops. GON's plans to reduce food insecurity and malnutrition are reflected in its National Multi-Sectoral Plan of Action for Food and Nutrition 2021-2025. The plan builds on the 2016 National Food and Nutrition Policy and sectoral action plans, including the National Health Strategic Plan of Action for Nutrition and the Nigeria Agricultural Sector Plan for Food Security and Nutrition 2016-2025. Due to the multidisciplinary nature of nutrition, combating malnutrition in all its forms at national and subnational levels requires a holistic and multisectoral approach, which is evidenced in the GON's most recent National Multisectoral Plan of Action for Food and Nutrition (2021-2025). Nigeria is currently in the first phase of the Accelerating Nutrition Results in Nigeria 21 year-long federal project to improve nutrition outcomes for women, adolescent girls, and children under five.

In 2017, the then President's wife, Aisha Buhari, alongside wives of governors, established the Future Assured Campaign to end child malnutrition in Nigeria. These influential women partnered with government agencies, UNICEF, and other critical stakeholders to advocate for improved healthcare and nutrition for women and children. Opportunities to advance the nutrition agenda at the subnational level exist with the Nigeria Governors Forum, including using a nutrition scorecard as an advocacy tool to hold governors responsible for following through with critical nutrition commitments in each of their states. The Vice President of Nigeria chairs the National Council on Nutrition (NCN), the highest decision-making body on food and nutrition, and oversees interventions in addressing Nigeria's nutritional challenges. The NCN is guided by the National Food and Nutrition Policy, adopted in April 2016 by a broad coalition of stakeholders. To demonstrate its commitment to combating nutrition, the government included the first-ever line item for nutrition in the federal budget: $17 million annually over the next five years. Additionally, the GON, in collaboration with development partners, expanded the availability of national and subnational data to inform nutrition policy and intervention decisions (Ministry of Budget and National Planning, 2016).

Additional GON policies related to food security, nutrition, resilience, and agriculture include the National Gender Action Plan for the Agriculture Sector (2018), Agriculture Promotion Policy, National Livestock Transformation Plan, Northeast Development Commission, Food and Nutrition Policy, and Multisectoral National Nutrition Action Plan.

There are few policies and support programs providing social safety nets. Although the Nigerian government has rolled out a few programs and strategies such as the National Health Insurance Scheme, the Pension Commission, and the National Social Insurance Trust, these agencies were developed to target the formal sector. In 2017 the Nigerian government extended social protection support to cushion the effects of frequent shocks such as floods, targeting the informal sector and vulnerable households. The Nigerian Social Protection Policy provides 1.5 million Nigerians cash transfers, microcredit, skill development, job opportunities for unemployed youth, and school feeding programs. There are some critiques of this policy around its narrow coverage, lack of transparency for targeting beneficiaries, and lack of linkages to productive opportunities.

A.7 Partnership Landscape

Key partners in the agricultural sector include the African Development Bank, the Bill and Melinda Gates Foundation (Gates Foundation), Food and Agricultural Organization (FAO), German Gesellschaft für Internationale Zusammenarbeit (GIZ), and the World Bank.

The African Development Bank active portfolio in Nigeria comprises 48 operations valued at $4.4 billion. These include 24 public sector projects amounting to $2.5 billion and 24 private sector operations valued at $1.9 billion in the areas of agriculture, education, health, public utilities, and transport and telecommunication.

The Gates Foundation supports smallholder farmers in Nigeria to increase their yields and reduce food insecurity in the country. The foundation supports the government's efforts to ensure that women, smallholder farmers, and other marginalized populations have access to digital financial services. Additionally, they work with the Nigerian government and other partners to help address a range of health issues, including nutrition.

The FAO focuses on providing technical assistance and policy advice for the development of crops with emphasis on institutional capacity building and development of local skills and expertise to ensure sustainability and future local support.

The GIZ focuses on economic development to increase employment, income generation, and access to finance for SMEs. Through demand-oriented vocational training, GIZ assists partners to adapt vocational training programmes to market needs. In support of the German Federal Ministry's Digital Africa Initiative, the GIZ is working to create an enabling environment for young tech entrepreneurs. GIZ also invests in various agricultural value chains to strengthen the income, employment, and food security of smallholder farmers.

The World Bank development objectives include boosting economic productivity by catalyzing private investment, job creation, economic transformation, and diversification away from oil. The World Bank's priority is to create an enabling environment so existing firms can grow, be more productive, or exit the market; and for new firms to emerge and succeed or fail fast and cheaply. Their agenda includes fostering agricultural modernization and increasing the competitiveness of agriculture value chains with a more conducive enabling environment and provision of quality public goods.

Within the USG there are several agencies promoting agriculture growth in Nigeria; these include the U.S. African Development Fund (USADF), U.S. Commercial Services, U.S. International Development Finance Corporation (DFC), U.S. Department of Agriculture (USDA), and the U.S. Agency for International Development (USAID).

The USADF investments promote local economic development by increasing incomes, revenues, and jobs. Using a community-led development approach, USADF provides seed capital and local project management assistance to African-owned and -led enterprises addressing some of Africa's biggest challenges around food insecurity, insufficient energy access, and unemployment - particularly among women and youth.

The U.S. Commercial Services helps Nigerians locate U.S. products, services, and business partners; meet suppliers and partners face-to-face; and participate in trade shows that feature thousands of U.S. companies. "For those seeking to initiate their first-time imports from the U.S. or discover new U.S. suppliers", they provide the necessary expertise to connect with profitable opportunities.

The DFC partners with the private sector to finance solutions to the most critical challenges facing the developing world today. DFC provides financing for small businesses and women entrepreneurs (especially in the agriculture sector) to create jobs in emerging markets. DFC investments adhere to high standards and respect the environment, human rights, and worker rights.

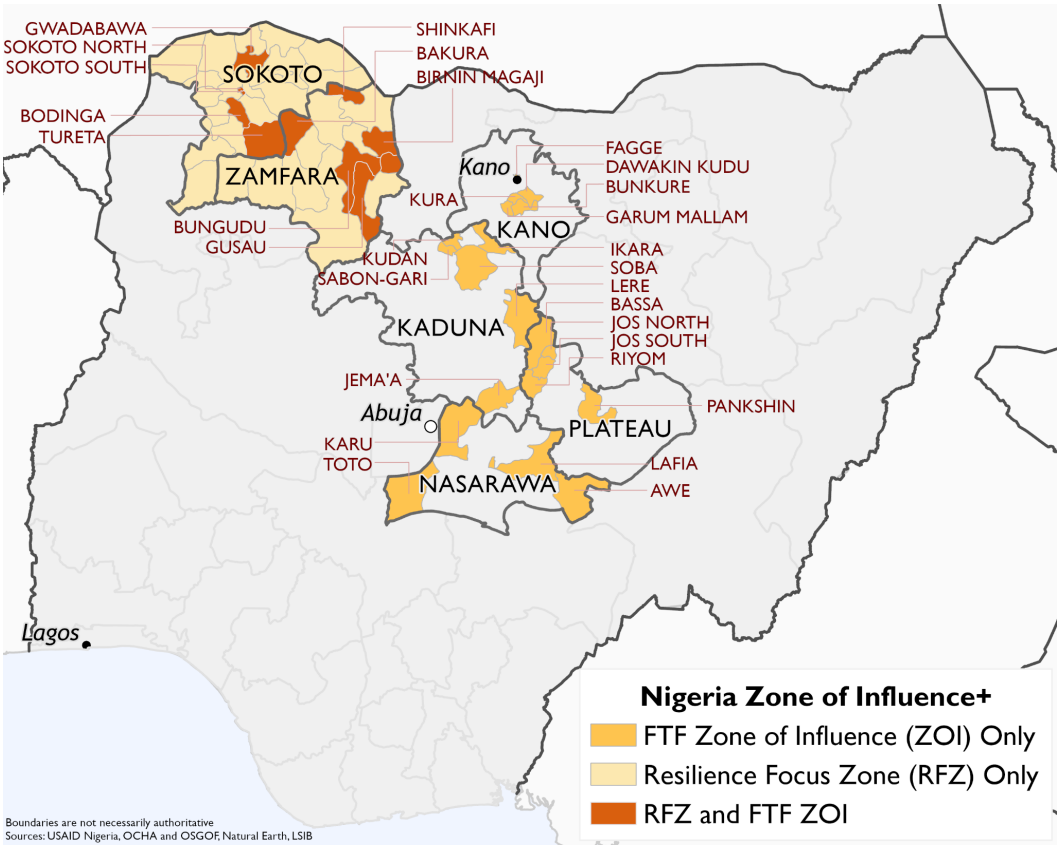
The USDA Foreign Agriculture Services (USDA/FAS) efforts include helping develop Nigeria's agricultural systems and build their trade capacity. Additionally, they develop non-emergency food assistance programs to help meet recipients' nutritional needs and support agricultural development and education.

B. Targeting

B.1 Map of Zone of Influence

The market systems approach adopted by the USG focuses on "breadbasket areas'' of the country as nodes of interventions where targeted investments can contribute most to measurable and sustainable improvements in food security, poverty reduction, and nutrition. These high-potential areas are typically geographies with the most fertile soils and optimal rainfall patterns for agricultural production. These predominate in Nigeria's South-South, Southeast, Northwest, and Northcentral regions. The Northwest and Northcentral breadbasket areas are central to the Feed the Future Zone of Influence (ZOI), depicted in Figure 1.

Figure 1: Feed the Future Zone of Influence (ZOI) for Nigeria's GFSS FY 2024 - FY 2029



B.2 Description of Zone of Influence

GFSS investments will focus on selected Local Government Areas (LGAs) in six of Nigeria's 36 states. Those states, shown in Figure 1 above are: Kaduna, Kano, Nasarawa, Sokoto, Plateau, and Zamfara. The states were selected based on the following criteria:

1. Production potential for prioritized value chains
2. Demonstrated commitment to promoting and diversifying agriculture production
3. Opportunity to leverage private sector partnerships
4. Rates of undernutrition
5. Security considerations

The ZOI will include approximately 12-18 LGAs which will be streamlined from the current 30 identified[2] in six states. Once the number of target LGAs are narrowed down during the new activity design phase, the Mission will document the revised list of LGAs in an addendum to this Country Plan. In addition to being part of the ZOI, Sokoto and Zamfara are covered in the Resilience Focus Zones; in those states, humanitarian assistance, resilience, agriculture interventions and other USAID/Nigeria activities will be sequenced, layered, and integrated.

This ZOI represents a deliberate shift from the ZOI under the previous phase of Feed the Future, retaining only one state from the previous ZOI in an effort to optimize resource utilization. The new ZOI focuses the implementation zone significantly, reducing the number of states from eleven to six. It clusters states strategically to maximize impact while decreasing costs and aligning them with specific targeted value chains. It considers Nigerian government priorities and engagement at the state levels and allows for overlap with USAID-funded multi-year health and humanitarian assistance programming.

Table 1: Overview of nutrition and poverty in the priority states

State	Prevalence of childhood stunting (NPS and IPC, 2018)	Prevalence of anemia in women (Ibid.)	Poverty headcount rate (NLSS, 2019)	Food insecurity headcount ratio (NBS, 2022)	Proportion of labor force unemployed or underemployed (NBS, 2020)
Priority States	**47.80%**	**54.00%**	**59.90%**	**35.00%**	**55.00%**
Nasarawa	31.40%	65.10%	57.30%	24.10%	60.90%
Sokoto	54.80%	73.70%	87.73%	25.90%	33.70%
Zamfara	50.80%	71.30%	73.98%	39.10%	54.70%
Kano	56.90%	46.60%	55.08%	31.20%	56.60%
Kaduna	48.10%	44.00%	43.48%	39.60%	66.90%
Plateau	44.70%	43.70%	55.05%	52.30%	52.70%
Non-priority States	***51.00%***	***58.30%***	***36.30%***	***38.90%***	***57.20%***

[2] LGAs (subject to change): Kano - Bunkure, Dawakin Kudu, Fagge, Garun Mallam, and Kura. Kaduna - Ikara, Jema'a, Kudan, Lere, Sabon-Gari, and Soba. Nasarawa - Awe Karu, Lafia, and Toto. Plateau - Bassa, Jos North, Jos South, Pankshin, and Riyom. Sokoto - Bodinga, Gawabawa, Sokoto North, Sokoto South, and Tureta. Zamfara - Bukura, Birnin Magaji, Bungudu, Gusau, and Shinkafi.

The Northwest: Kaduna, Kano, Sokoto, and Zamfara

In the Northwest, what began as occasional clashes between farmers and herders competing over increasingly scarce land and water resources, has over the past decade, evolved into generalized violence against civilians by armed groups, locally known as bandits, predominantly in Zamfara State and Sokoto states. As a result, more than 470,000 internally displaced people (IDPs) and at least 4.2 million people faced acute food insecurity in 2023. The high level of food insecurity has steadily increased over the years and is largely comparable to those in the conflict-afflicted Northeast, resulting in severe levels of acute malnutrition.

Kaduna and Kano States are naturally positioned as hubs for increased agricultural production, with a vast fertile land area that supports crop cultivation and livestock production. Paradoxically, stunting rates in the Northwest region rank among the highest in Nigeria (Table 1).

A 2021 report by the International Federation of Red Cross and Red Crescent Society estimated 2.53 million people in the Northwest (Katsina, Sokoto, and Zamfara) would face acute food insecurity due to insecurity and climate change (IFRC, 2021).

Kaduna

Kaduna's economy depends on agriculture, especially maize, groundnut, ginger, and cotton production. The agricultural sector employs 42 percent of Kaduna's workforce, most of whom are small-scale farmers. The state produces 22 percent of Nigeria's maize and 10 percent of groundnut. Additionally, Kaduna is the largest producer of tomatoes. The state's central location provides access to markets in the north and south. The Kaduna State government entices private sector investment through pro-growth state level policies. Several prominent agro-processing companies are in Kaduna, including Arla Foods, OCP Africa, Mahindra Tractors, Olam Feed Mill and Hatchery, and Tomato Jos. The main challenges facing Kaduna's agricultural sector growth are small farm sizes, insecurity, lack of access to credit, limited irrigation, inadequate storage facilities, and inadequate cooperative organization. There are market opportunities for absorbing new production volumes resulting from heightened investments in the horticulture value chain (Oxford Business Group, 2022).

Kano

Agriculture is one of the key sectors driving the Kano State economy, with over 70 percent of the population engaged directly and indirectly in the sector. Kano has one of the largest grain markets in West Africa, with links to many of the agricultural producers in the region. The state is considered the rice milling hub in West Africa. The state is responsible for three million metric tons (half of the country's production) of Nigeria's milling capacity. Kano's government collaborates with international agencies, such as the Sasakawa Africa Association and the UNDP to help improve productivity and efficiency along the agricultural value chain (Alive & Thrive, 2022).

Sokoto

Sokoto has the highest percentage of poor people, 91 percent, experiencing multidimensional poverty (GON, 2022). World Bank poverty rates corroborate this by listing Sokoto with the highest poverty rate at 87.7 percent (Table 1). Over 80 percent of Sokoto's population are engaged in agriculture. Farmers produce maize, rice, potatoes, cassava, millets, sorghum, groundnuts, and beans for subsistence (Government of Sokoto State, 2020). Sokoto has several river basins to support large-scale irrigation farming, which provides agriculture investment opportunities in the state.

Zamfara

Zamfara State is the most underdeveloped state in the country (Okafor, 2022). Agriculture is the mainstay of the state's economy, with more than 80 percent of residents engaged in agriculture. The

state produces grains, cotton, and tobacco, but increased insecurity has inhibited agricultural development. The Nigerian Presidential Enabling Business Council ranked the state lowest among the 36 federation states in the ease of doing business index.

North Central: Nasarawa and Plateau

In the Northcentral region, Nasarawa and Plateau States are considered emerging food baskets in Nigeria and have characteristics that provide a comparative advantage in production, processing, and marketing of major crops. The fertile land and diverse topography in states allows farmers to cultivate a wide variety of major cash crops. Nasarawa and Plateau States are considered the fourth and fifth largest producers of maize and rice, respectively.

Nasarawa

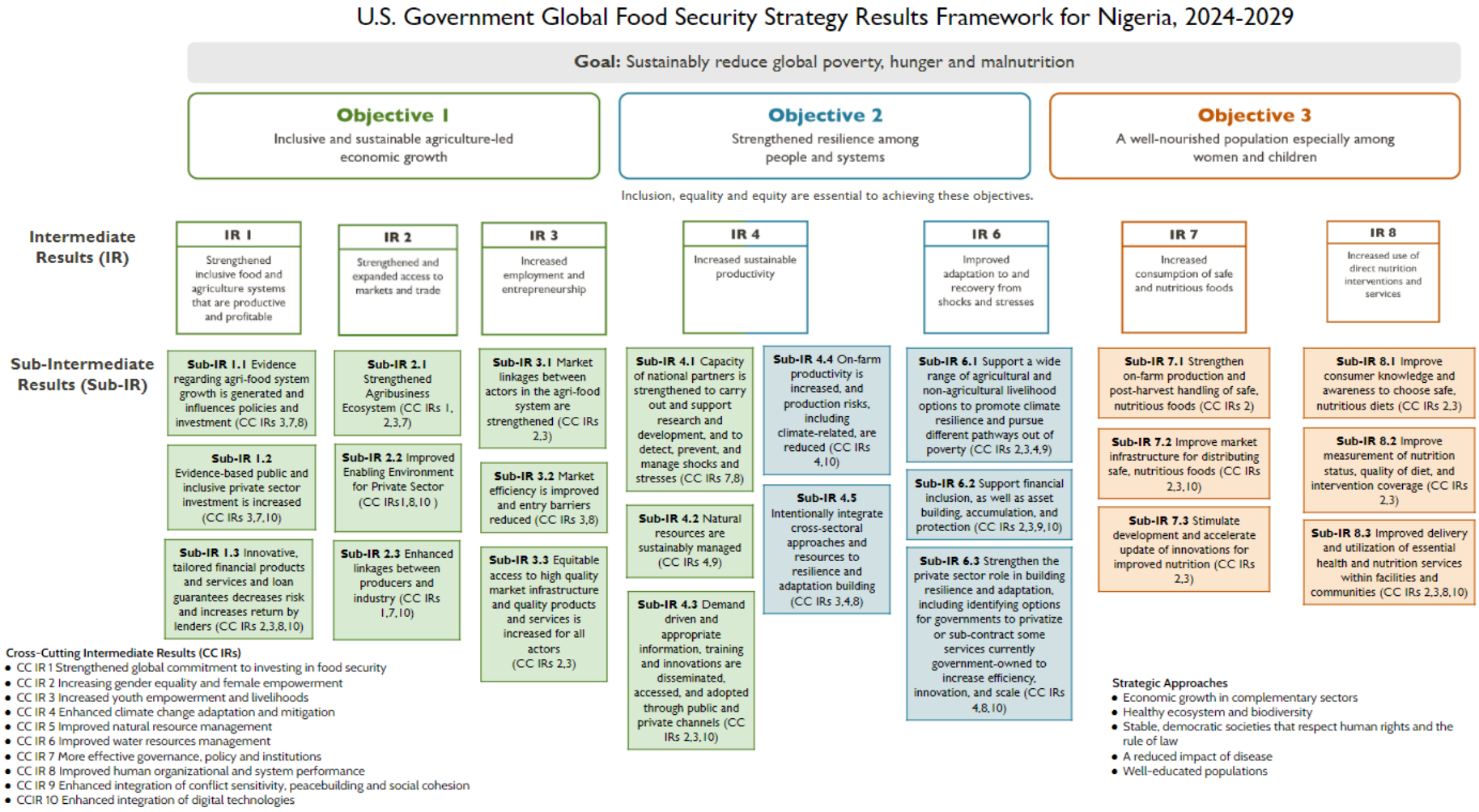
In Nasarawa State agriculture is also the primary livelihood, with over 70 percent of the population involved in subsistence farming (NASIDA, n.d.). The government is positioning itself as a hub for agricultural business. Agriculture is considered one of two key pillars of the industrial revolution being undertaken by the government. The competitiveness of Nasarawa is tied to its arable land mass, available labor, and smallholder farmers' potential to scale up production due to its proximity to Kaduna and the Federal Capital Territory (population centers with high market potential). Staple cash crops include: yam, maize, mahogany, cassava, groundnut, ginger, eggplant, rice, sorghum, sugarcane, pepper, cowpea, melon, soybean, cashew nuts, sesame seed, and shea butter.

Plateau

In December 2021, the Plateau State government unveiled an agricultural policy and implementation plan for 2022-2027. The plan focuses on creating an agriculture hub for the growth and transformation of the state’s economy. Additionally, the Plateau government plans to allocate at least 10 percent of the total annual budget to the state-level Ministry of Agriculture. The agricultural policy encourages private sector investments and boosts employment opportunities for women and youth. In addition, the state government established a mechanism to facilitate the distribution of quality seeds and seedlings, fertilizers, and other vital farm inputs. Staple cash crops include: fonio, yams, sorghum, maize, potatoes, cowpeas, rice, fruit (berries, apples, grapes, pomegranates, peppers, soursop, cucumbers, etc.) and vegetables (broccoli, cauliflower, beets, carrots, asparagus, etc).

C. Results Framework

C.1 Results Framework Figure



C.2 Results Framework Summary

Feed the Future investments will contribute to sustainably reducing poverty, hunger, and malnutrition in Nigeria through a market systems approach that prioritizes addressing risks, leveraging networks, adaptation and innovation, inclusive development, localization, and targeted value chains. The market system approach will focus on building and enhancing resilient systems to pursue the Nigeria GFSS Results Framework (RF).

The three GFSS Objectives are supported in Nigeria by seven Intermediate Results and 23 sub-Intermediate results. These align with Objective 2.1 of the U.S. Department of State's Nigeria Integrated Country Strategy, "Nigeria Promotes Broadened and Inclusive Economic Growth." This country's strategy is directly linked with the National Security Council's comprehensive U.S. Bilateral Policy Framework for Nigeria; the Interim National Security Strategic Guidance; and the State-USAID Joint Strategic Plan (U.S. Department of State, 2022). In addition, the Nigeria country-level RF complements several internal USAID/Nigeria strategies including:

- **Country Development Cooperation Strategy 2020-2025**
  - Development Objective 1: Broadened and Inclusive Economic Growth
  - Intermediate Result 1.1: Incomes, food security, and nutrition in targeted geographies improved
- **Global Water Strategy High Priority Country Plan**
  - Strategic Objective 3: Improve climate resilience conservation and management of freshwater resources and of associated ecosystems
  - Strategic Objective 4: Anticipate and reduce conflict and fragility related to water - which includes farmer herder conflicts
  - Intermediate Result 2.4: Increase adoption of key hygiene practices - which is important for nutrition and food safety
- **Nutrition Priority Country Multi-Sectoral Nutrition Plan**
  - Intermediate Results 1: Improved food security and nutrition through the food system
  - Intermediate Results 2: Improved nutrition through the health system

C.3 Rationale for Impact Pathways

GFSS Objective 1: Inclusive and sustainable agriculture-led economic growth

Objective 1 of the RF is supported by Intermediate Results (IRs) 1,2, 3 and 4, which collectively focus on strengthening food and agriculture systems by expanding evidence-based decision making and improved management practices and technologies within markets.

IR 1: Strengthened inclusive food and agriculture systems that are productive and profitable

IR 1 is an integral part of the Feed the Future strategy as it supports an enabling environment for the private sector to be more fluidly aligned with food and agriculture systems to mobilize market linkages and investment. To actively promote equity and inclusion within the food and agriculture system, this IR will engage with the government, the broader policy environment, and private sector. It will facilitate innovation and catalyze investment to improve the productivity and profitability of food and agriculture systems, with a specific emphasis on empowering marginalized groups. This includes generating data and evidence-based research to inform policy formulation and to define a common approach for food and agriculture investments tailored to the Nigerian context, thereby ensuring that equity and inclusion are at the core of the efforts.

Increasing private sector investment will also maximize USG investments. Innovation is especially important for tailoring financial products, decreasing risk, and increasing returns for lenders, which can be catalytic. This IR will collectively address bottlenecks and opportunities in policy, production, and consumption in food and agricultural systems.

IR 2: Strengthened and expanded access to markets and trade

Nigeria's agricultural sector has long been hampered by weak trade capacity and access to international markets. These factors not only disincentivize investment in the agriculture sector, but also limit the country's ability to bolster food security through trade. The USG will work with Nigeria's private-sector stakeholders, local non-governmental organizations, and trade associations to facilitate increased engagement, advocacy, and compliance with GON authorities on a range of policies relevant to food safety, trade, public health, and environmental sustainability. The USG will also encourage the GON to enable a better business environment by implementing the least trade distorting policies in accordance with its obligations in the World Trade Organization's Agriculture Agreement. IR2 seeks to assist stakeholders in harmonizing food safety, quality, and marketing in line with international Codex Alimentarius standards. Efforts to strengthen sanitary phytosanitary standards are expected to lead to assisting SME agribusinesses to produce, trade, and utilize safe and wholesome food. In addition, standard harmonization is expected to strengthen Nigeria's agribusinesses and producer association trade capacity within the AfCFTA region, and in international markets**.**

IR 3: Increased employment and entrepreneurship

To foster equality and inclusion, IR 3 will take concrete steps to enhance employment and entrepreneurship opportunities. It will achieve this by establishing market linkages, optimizing operational efficiency, and dismantling barriers, particularly for youth, to ensure that they have expanded access to essential market infrastructure. USAID/Nigeria's approach involves implementing co-investment grant programs and providing technical assistance to strategically chosen private sector enterprises. These efforts aim to bolster the capacity of these companies, enabling them to expand their business operations, increase productivity, and generate employment opportunities that are aligned with the skills and aspirations of Nigeria's emerging generation. USAID will also actively collaborate on specific commercial prospects, working in partnership with firms, service providers, research institutions, and other entities within the business network to facilitate their access to private capital, thus catalyzing the creation of jobs, boosting exports, and driving investments in a manner that ensures equality and inclusion are central to the process.

GFSS Objective 2: Strengthened resilience among people and systems

Objective 2 of the RF is supported by IRs 4 and 6 which focus on addressing the complex risk environment of Nigeria by increasing on-farm production, livelihood diversification, and financial inclusion. IR 5 is not included in the RF as the Mission will focus on strengthening capacities to adapt to and recover from shocks.

IR 4: Increased sustainable productivity

This IR contributes to GFSS Objectives 1 and 2 of the RF. The overarching efforts will center on enhancing the capabilities of national partners to predict, prevent, and manage various shocks, all while ensuring the sustainable utilization of resources and promoting productivity through climate-smart agricultural practices, including promotion of drought-resilient and flood-resilient seeds. Through targeted interventions, USAID will empower local beneficiaries with the necessary skills and competencies to mitigate risks, improve productivity, and effectively respond to unexpected challenges.

These interventions encompass a range of strategies, including sharing of best practices, comprehensive training, and use of innovative techniques. Furthermore, this IR will utilize a cross-sectoral approach to effectively integrate health, governance, and education interventions, while layering humanitarian assistance interventions to create a comprehensive program to increase household and community resilience.

IR 6: Improved adaptation and recovery from shocks and stresses

Given Nigeria's challenging risk environment, building resilience to adapt to and recover from shocks and stresses is crucial. This IR will support a wide range of agricultural and non-agricultural livelihood options that promote climate resilience and pathways out of poverty so that individuals develop a diverse range of adaptation options. This includes giving people the skills to adapt and build assets and livelihoods. Financial inclusion is also a key component of adaptation and recovery from shocks. Interventions will increase access to and demand for conventional financial options as well as savings and lending activities. This includes helping to de-risk loans for financial institutions so they are more willing to lend to farmers. Additionally, strengthening private sector capacity and resources in building resilience and adaptation will be a key part of work under this IR.

GFSS Objective 3: A well-nourished population especially among women and children

Objective 3 of the RF is supported by IRs 7 and 8 which focus on reducing malnutrition through behavioral changes and strengthening market linkages and functions. IR 9 is not included in the RF as it will be addressed by non-Feed the Future resources and is not in the manageable interests of the current FTF portfolio.

IR 7: Increased consumption of safe and nutritious food

Using a food systems lens, this IR focuses on using investments to strengthen the supply of higher quality, safe food for market availability and consumption. This includes supporting local value-added processors in the private sector to process food and improve food safety as well as nutrient preservation throughout the storage, handling, and transportation cycles. Partnering with the private sector will help improve market infrastructure for distributing safe, nutritious food, to support the implementation of the new food safety act in Nigeria.

This supply-side work will be complemented by efforts to build consumer demand for safe, nutritious foods. It will be important to apply specific consumer demand approaches tailored to different populations to ensure inclusion. Approaches to build consumer demand will be implemented under this IR through agri-food system focused programming as well as through interventions in the health sector under IR 6.

Lastly, building off the National Agriculture Technology and Innovation Policy, Feed the Future investments will stimulate development and accelerate the uptake of innovations for improved diets and nutrition. This may include developing new and innovative ways to increase access to food, applying digital innovations to monitor large scale food fortification, and engaging youth.

IR 8: Increased use of direct nutrition interventions and services

Feed the Future plays a critical role in linking women and children to nutrition interventions and services. Nutrition-specific interventions, often provided through the health system, are integral to Feed the Future and complement our work across the food system. Nutrition-specific interventions within health programming in the ZOI will support the prevention and treatment of malnutrition by strengthening maternal, infant, and young child nutrition, building capacity of health care staff and

volunteers, supporting government protocols on management of acute malnutrition, and strengthening nutrition services within maternal and child health platforms.

Improved measurement of nutritional status, diets and dietary outcomes, and intervention coverage will be a priority to guide nutrition strategies and interventions. Improving data collection and monitoring systems will allow for better targeting of resources by all stakeholders as well as sustained impact.

C.4 Key Assumptions and Risks

As shown in Tables 2 and 3 there are numerous assumptions upon which this country-level RF is built as well as risks that might prevent its achievement. To address such assumptions and mitigate risks, the USG will employ a multifaceted approach. First, it will develop and maintain open communication with the Nigerian government at the national and state level and diversify engagement strategies to navigate the assumption of good relations and adapt to political shifts. To counter bottlenecks hindering growth, the USG will enhance market access, foster entrepreneurship, and improve access to agricultural resources.

Second, collaboration with civil society and local communities will be crucial to enhance transparency and accountability. To tackle agricultural underperformance, the USG will prioritize investments in productivity and market access.

Third, it will support governance reforms and infrastructure projects for sustained growth. Fourth, the USG will provide technical assistance for sound economic policies. Fifth, it will strengthen resilience in vulnerable communities and manage social resistance through public outreach and information dissemination. Finally, it will prioritize conflict-sensitive programming and enhance security for farmers in volatile regions.

Table 2. Assumptions related to Feed the Future impact pathways

Assumptions
Continued good relations between USG and the GON.
Broad-based stakeholder engagement, effective civil society engagement, and accountability mechanisms are necessary to monitor and advocate for reform.
Continuity of government with peaceful transitions of power.
Consistent government policies related to sustainable economic growth and development.
Crises and climate-affected natural hazards (droughts, floods, storms) will continue to occur.
Farmers are able to continue producing agricultural commodities despite insecurity or that insecurity will diminish.

Table 3: Risks related to Feed the Future impact pathways

Risks
Bottlenecks to inclusive growth, such as poor access to inputs and markets, coupled with an unfriendly business environment, will prevent most Nigerians from benefiting from the country's robust economic growth.
Nigeria's agricultural sector will underperform (negatively affecting nearly 50 percent of the population that it employs and 24 percent of GDP to which it contributes).
Private and public sector infrastructure investments remain seriously inadequate for what is necessary to support sustained economic growth.
Poor macroeconomic management; increasing sovereign debt, inflation, and cash crisis.
Social resistance to fuel and electricity price increases
The expanding insecurity may disrupt supply chains and hinder access to markets, consequently reducing farmers' ability to sell their produce and sustain their livelihoods.

C.5 Addressing GFSS Key Priorities

Nigeria's GFSS Results Framework addresses all five key priorities outlined in the new GFSS:

- **Equity and Inclusion:** This is at the core of GFSS's overall approach in Nigeria and these principles are integrated across all IRs. Inclusive approaches will be adapted to ensure that women, people living with disabilities and youth in particular benefit from Feed the Future interventions. This is especially important given the substantial size of the youth population as well as the important role women play in agriculture and in ensuring their families have healthy diets.
- **An Ambitious Approach to Climate Change:** Programming will focus on adaptation and innovations to adapt to the effects of climate change, including promotion of drought-resilient and flood-resilient seeds and incentivizing farmers to support climate-resilient crops within the horticulture value chain. On the climate mitigation side, GFSS investments will promote best agricultural practices within the rice value chain that not only increase rice productivity, but also mitigate the emission of methane from rice cultivation. USAID will build resilience to potential shocks such as droughts and floods and promote more sustainable natural resource management to reduce climate-related risks to agricultural production. Feed the Future programming contributes to the USAID/Nigeria Climate Change Annex.
- **Proactively Counter the COVID-19 Pandemic's Long-Term Effects:** Efforts will continue to focus on sustainable agriculture development and livelihood resilience to support economic recovery from the lingering effects of the COVID-19 pandemic as well as the spike in global food prices and fertilizer caused by the Ukraine/Russia conflict.
- **Work Across Relevant Areas of Food Systems:** Nigeria's GFSS Results Framework presents an integrated approach to working across the food system. While certain value chains are being prioritized to address needs more efficiently in Africa's largest economy, interventions will comprehensively address the production, affordability, and marketing of nutritious foods, and cultivate an enabling policy environment, and sustainable food systems.

- **Integration of Conflict Mitigation, Peacebuilding, and Social Cohesion:** Given ongoing conflict concerns in Nigeria, this element is crucial across IRs. Whether it is supporting efforts to address farmer-herder conflicts or building peace and social cohesion through producer or farmer groups, Nigeria's GFSS Results Framework will apply a conflict-sensitive lens across all programming.

D. Program Components

D.1 Programmatic Approach

The GFSS Country Plan for Nigeria adopts a market system approach appropriately adapted to the local context. The market system approach utilizes specific value chains and examines the production-consumption zone dynamics, identifies weak points in the chain and actions required to add value. Adopting an adapted market systems approach identifies strategic intervention points and shapes corresponding actions that improve economic resource management and achieve multiple objectives simultaneously of poverty alleviation, wealth and job creation, and youth and women's empowerment.

Programming under the GFSS Country Plan will be guided by several overarching themes:

Cascading Risks

Nigeria's GFSS programming will be designed to address a challenging operational environment. Insecurity and climate risks are life-changing threats, including recent, unprecedented flooding that devastated livelihoods and persistent drought that exacerbates herder/farmer tensions. The Russian invasion of Ukraine has ripple effects in Nigeria and magnifies existing domestic challenges, from a currency crisis to the availability of fuel, fertilizer, and food. New shocks are a constant threat and, while they will evolve, the reality is that the next shock or crisis is inevitable and must be prepared for.

Leveraging Networks

The Feed the Future Nigeria team will create a network that works together and connects all major players, catalyzing collective action in line with USAID's "Progress beyond Programs" policy framework. Through private sector engagement, Feed the Future is building a network that sustainably connects farmers to inputs and markets. Feed the Future is also collaborating with the government to ensure that the GFSS aligns with national goals and objectives and that our partnerships reinforce each other. The USG will leverage the $540 million Special Agro-Industrial Processing Zone program through the African Development Bank. This program promotes increased productivity, value addition, market access, and private sector investment in select agricultural value chains including horticulture, maize, and rice value chains in Kano and Kaduna States. Feed the Future Nigeria is also identifying multi-sectoral opportunities to collaborate across USG agencies, ensuring our investments are complementary in specific geographic zones and maximizing impact across sectors.

Adaptation and Innovation

In addition to catalyzing and leveraging investments, Feed the Future interventions will prioritize adaptation and innovation in the face of recurring shocks. For instance, Feed the Future will identify ways to produce crops that are drought-tolerant and better adapted to the changing climate realities. GFSS programming will promote sustainable natural resource management approaches to stop the degradation and depletion of essential resources, including improving soil and input management practices, enhancing the natural resource base while decreasing overall input costs, decreasing GHG emissions, generating climate change mitigation co-benefits, and promoting adaptation for smallholder households.

Inclusive Development

Inclusive development demands strategies that acknowledge and involve all stakeholders throughout the developmental journey, ensuring that no one is left behind. An illustrative example is the integration of youth, women, and people living with disabilities into the agri-food system, where technology and innovation emerge as pivotal drivers of enhanced participation. Given the substantial population of Nigerian youth and recognizing the critical roles that women and people with disabilities play, it becomes imperative to delineate pathways that highlight the advantages of their engagement within the agricultural sector. Moreover, the potential of technology extends to empowering women and individuals with disabilities, bolstering overall well-being and economic inclusion. This is most evident in the streamlining of technology-driven training initiatives, creating a connected ecosystem that optimizes resources and time, thereby liberating valuable hours for other pursuits. By recognizing the power of inclusive approaches, especially when harnessed through technological advancements, societies can forge pathways to holistic and sustainable development that benefits all segments of the population.

Localization

At the heart of our approach is localization, echoing USAID's vision of fostering meaningful engagement and ownership within the communities we serve. This vision propels us to embrace solutions that emanate from the very fabric of local contexts. Our collective experience underscores the nuance that localization does not invariably translate to direct financial transactions between local entities and the USG; in fact, such transactions can sometimes inadvertently erect barriers. Feed the Future programming will operate synergistically with local systems, catalyzing sustainable advancements that seamlessly align and developing the capacity of local partners through our programming, fostering resilience. This holistic partnership approach, deeply rooted in USAID's ethos, not only empowers communities but also echoes our unwavering commitment to fostering lasting change from within.

Targeted Value Chains

To efficiently address needs in Nigeria, USAID will target three key value chains: maize, rice, and horticulture. These choices align with the overarching goal of the GFSS to combat food insecurity by increasing caloric and micronutrient availability while improving economic opportunities for smallholder farmers within the ZOI. These value chains hold significant potential in the Nigerian food system to reduce poverty by substantially increasing income for smallholder farmers. Additionally, they contribute to food security, enhance equity and inclusion, promote conflict mitigation, bolster social cohesion, enable dietary diversity, and boost overall productivity. This strategic focus on maize, rice, and horticulture addresses multiple facets of poverty reduction, nutrition, and enhancement of livelihoods in Nigeria.

Maize and rice are key staple foods and each account for three to four percent of Nigeria’s agrifood GDP, while horticulture accounts for 30 percent. Maize has the clearest potential to increase food security, with an estimated two percent decrease in the prevalence of poverty for each additional one percent increase in associated agricultural GDP (IFPRI, 2023). Rice provides strong economic potential, with analysis by the International Food Policy Research Institute (IFPRI) suggesting that for each $1 earned from rice production, there is an associated $1.26 created in the broader economy. Together, these two value chains have the potential to address immediate food security needs while promoting economic growth and improving off-farm productivity (IFPRI, 2023). These value chains can contribute to decreasing multidimensional poverty in rural areas and smallholder households. To do so, investments must be made in ways that enhance production and consumption of these crops and other

nutritious foods. This must be done alongside the development of pro-poor value chains that can improve livelihoods by making economic growth opportunities available to smallholders (NESG, 2023).

Horticulture has a low barrier to market entry and high-income potential, making it attractive to many, including women and youth. Horticulture has a larger economic growth potential than livestock, fish, or poultry and eggs (IFPRI, 2023). Horticulture is a key component of healthy diets and has a high market demand as an easily available source of micronutrients to integrate into diets. Additionally, Kaduna, Kano, and Sokoto States are lead producers of tomatoes, onion, and pepper, which are highly profitable cash crops in Nigeria. Plateau State stands out as the major producer of potato. Together, these four states produce more than 50 percent of all horticulture in Nigeria.

Maize has the greatest demand from processors of any value chain, with several large firms such as Nestle, Cadbury, and Flour Mills of Nigeria actively seeking more high-quality inputs for their processed cereal. Maize also enjoys strong GON support at the national and state levels. Kaduna State, for example, identified maize as the key value chain for growth. USAID/Nigeria Feed the Future programs have invested in the maize value chain in the past and have successfully partnered with the private sector to maximize the benefits of these investments. For example, in a partnership with Nestle, USAID successfully implemented training programs that reduced contaminants in grains. Looking ahead, private sector partnerships will continue to be beneficial in supplementing USAID Feed the Future funding in Nigeria.

Rice holds significant market potential, thanks to strong domestic demand and government support. The Anchor Borrowers' Programme (ABP), launched by the CBN in 2015, played a pivotal role in expanding rice cultivation, processing, and the entire value chain. Consequently, Nigeria boasts 68 integrated rice mills, capable of milling 3 million metric tons of rice. Despite this capacity, the industry faces limitations due to a shortage of high-quality rice paddies. To overcome this, small-scale irrigation technologies will be promoted, particularly in the arid northern region, to increase cropping cycles per year for smallholder farmers. Exploring residues and by-products from these value chains as inputs for livestock feed and soil amendments can generate employment opportunities, especially for women and youth. Additionally, rice provides a chance for the USG to promote optimal agricultural practices, enhancing productivity and mitigating methane emissions. This aligns with USAID goals, contributing to emission reduction targets and supporting Nigeria's NDC plan to cut greenhouse gasses from rice cultivation.

Although the three value chains will be the primary focus to maximize impact with limited resources in such a populous country, we will also closely coordinate with other ongoing investments that support nutritious, traditional food crops, including other centrally funded investments to support climate-resilient food systems. This includes work through USAID innovation labs and other centrally funded activities that focus on cereals sorghum and millet, cowpea and cassava, among others. The strategy also allows for flexibility to adapt as needed should the funding situation allow for interventions in additional value chains in line with Nigerian needs and priorities.

D.2 Increasing the Productivity, and Competitiveness of Selected Value Chains and Market Systems

This Program Component contributes to all Sub-IRs under IRs 1, 2 and 3, and Sub-IRs 2.1, 2.2, 2.3, 4.1, 4.2, and 4.3 under IR 4. It also contributes to CCIRs 1, 2, 3, 4, 7, 8, 9, 10

Programming will increase the productivity and competitiveness of selected value chains and market systems through a variety of activities. This includes generating evidence regarding agri-food system growth to guide public policies and private investments, building the capacity of agri-businesses,

creating a more conducive trade enabling environment, removing constraints to their investment growth, and developing innovative financial products and services tailored to the agricultural sector to decrease risk and increase return for lenders.

To implement the Nigeria country plan, relevant USG agencies will need to leverage their convening power to engage diverse stakeholders across government, the private sector, civil societies, academic institutions, and farmers/ cooperatives to advance the establishment of a robust science-based policy and regulatory environment for inclusive agribusiness. An example of this is the ongoing effort to support the passage and implementation of Nigeria's Food and Feed Safety and Quality Bill: a regulatory reform effort that would ensure closer collaboration between the government and private sector. The development of a functional and transparent food safety regulatory system based on sound science and international Codex Alimentarius standards is critical to Nigeria's agricultural value chains, which will give consumers access to safe and nutritious foods.

To increase employment and entrepreneurship opportunities, programming will focus on increasing market connectivity, stimulating innovation, and enhancing market efficiency by reducing entry barriers and attracting a diverse range of actors to participate in the market.

Another important program area will be building the capacity of national partners to carry out research and development, manage shocks and stresses, and promote sustainable resource management. By enhancing productivity and competitiveness, Nigeria can build a resilient agricultural sector capable of addressing challenges associated with climate change, pests, and diseases. Sustainable resource management practices, including soil conservation and efficient resource utilization contribute to the long-term viability of the agriculture sector. Additionally, the dissemination and adoption of demand-driven information, training, and innovations empower farmers and agribusinesses to sustainably improve productivity and competitiveness. Nigeria's food and rural business systems will benefit from modernized food safety regulatory systems that meet risk-based, transparent Good Regulatory Practice standards that are developed with the producers' involvement to ensure appropriate practices meet international standards. Private sector engagement will help to elevate the expectations and demands for regulations that cover all production to ensure a fair competitive marketplace provides safe foods to consumers.

Overall, increasing the productivity and competitiveness of selected value chains and market systems in Nigeria contributes to policy alignment, inclusive investment, employment generation, market efficiency, sustainable resource management, and knowledge dissemination. These efforts will benefit male and female smallholder farmers, cooperatives, farmer associations, and the private sector and enhance the resilience, viability, and inclusivity of Nigeria's agricultural sector, supporting the country's food security and socio-economic development goals.

Expected outcomes include:

- Increased productivity and competitiveness of selected value chains
- Improved implementation and adherence to international standard practices and requirements for safety in the industry
- Increased comprehension among value chains stakeholders on the utility of traceability in certification and to facilitate trade
- Increased knowledge exchange between academia, industry, and government
- Increased access to improved inputs, practices, market linkages and coordination

- Increased value of agriculture and rural loans
- Increased number of private sector enterprises supported by USG-assisted programs
- Increased participation of females in USG-assisted programs
- Increased participation of youth (15-29 years) in USG-assisted programs
- Increased participation of people with disabilities in USG-assisted programs

Relevant actors/partners: AGRA, Agricultural Research Council of Nigeria, Bank of Agriculture, Bank of Industry, Central Bank of Nigeria, U.S. International Development Finance Corporation, FAO, Foreign Commonwealth and Development Office, Financial Institutions, Federal Ministry of Agriculture and Food Security, Federal Ministry of Industry Trade and Investment, Federal Ministry of Health and Social Welfare, GIZ, IFPRI, International Institute of Tropical Agriculture, Nigerian Economic Summit Group, Nigeria Agribusiness Group, Nigerian Institute of Social and Economic Research, Nigerian Bureau of Statistics, Private Sector, UNDP, USADF, USAID and, USDA.

D.3 Enhancing the Capacities of Vulnerable Households and Communities to Respond to and Recuperate from Shocks and Stresses

This Program Component contributes to Sub-IRs 2.1, 4.4 and 4.5 and all Sub-IRs under IR 6. It also contributes to the following CCIRs: 1, 2, 3, 4, 8, 9, and 10. Programming under this component will promote practices and technologies that enhance productivity for male and female smallholder farmers, cooperatives, and associations while minimizing vulnerability to climate change impacts. By addressing these risks, the GFSS contributes to the resilience and adaptability of agricultural systems, ensuring the long-term viability of food production.

Integrating cross-sectoral approaches and resources is another key aspect of this program component. The GFSS recognizes the interconnected nature of challenges and solutions related to resilience and adaptation. Efforts to make markets more inclusive and equitable will create win-win situations for sellers and buyers as an increase in the meaningful participation of women, youth, and disadvantaged groups as active participants and leaders will expand overall market value, profitability, and competitiveness. By integrating resources and expertise from different sectors, such as agriculture, environment, and finance, programming will leverage diverse perspectives and resources to build the resilience of vulnerable households and communities. GFSS programming will improve adaptation to and recovery from shocks and stresses. This will be accomplished by supporting a wide range of agricultural and non-agricultural livelihood options and prioritizing financial inclusion and asset building for vulnerable households. By diversifying livelihoods, building skills, increasing access to financial products, and other tools to build assets, vulnerable households can reduce their dependency on a sole source of income and increase their resilience to shocks. By implementing these strategies, the GFSS aims to empower vulnerable populations, reduce poverty, and enhance the ability of communities to withstand and recover from shocks and stresses.

Expected outcomes include:

- Increased resilience of households, communities, and systems to better absorb, adapt recuperate, and transform in response to stresses and shocks
- Increased participation of young men and women in market systems as farmers, entrepreneurs service providers, and employees

- Improved coordination and complementarity of humanitarian, market development, and resilience programming across USAID offices

Relevant actors/partners: Central Bank of Nigeria, U.S. International Development Finance Corporation, FAO, Foreign Commonwealth and Development Office, Financial Institutions, GIZ, International Fund for Agricultural Development, IFPRI, International Institute of Tropical Agriculture, Japan International Cooperation Agency, Private Sector and, UNDP.

D.4 Improving Access to and Use of Diverse, Safe, Nutritious, and High-Quality Foods

This Program Component contributes to all Sub-IRs under IRs 7 and 8. It also contributes to the following CCIRs: 1, 2, 3, and 10.

By implementing these strategies, the GFSS strives to ensure that individuals and communities have access to safe and nutritious foods to increase consumption, leading to improved nutrition outcomes and better overall health and well-being.

Programming under IR 7 aims to transform agricultural production and food systems to provide healthy diets for all. While the agri-food system largely operates within the private sector and is driven by profitability, the GON and its partners have a critical role in creating an environment that will incentivize greater production, availability, access, and affordability of safe, nutritious foods in local markets. GFSS investments in sanitary and phytosanitary measures, including providing technical support and training to and building the capacity of the public and private regulatory agencies, will improve the supply of safe, diverse, and nutritious foods, while also increasing incomes that improve access to an affordable and nutritious diet.

Maternal and child health services, which include infant and young child feeding and the treatment of wasting, reduce the burden of infections that erode nutritional status and are vital for a well-nourished population. Thus, a major thrust of USAID/Nigeria's approach will continue to support GON health programming and objectives, including interventions to advance food security. Efforts will pay particular attention to food utilization—a key pillar of food security. Programming through health will primarily contribute to IR 8, with the focus on increasing the use of direct nutrition interventions and services. Measurement is a key focus to improve nutrition interventions and services. By improving data collection and monitoring systems, the GFSS can better understand the nutrition landscape and evaluate the effectiveness of interventions, leading to targeted and evidence-based approaches to improve nutrition outcomes.

In summary, the GFSS will improve access to and the utilization of diverse, safe, nutritious, and high-quality foods through its objectives under IR 7 and IR 8. Expected outcomes include:

- Reduced prevalence of stunting and wasting among children under five years of age
- Reduced exposure to aflatoxins through education along the value chain
- Reduced prevalence of underweight women of reproductive age
- Improved minimum dietary diversity for women
- Increased percentage of households with access to nutrition-related professional training through USG-supported programs
- Decreased anemia in women and children

Relevant actors/partners: FAO, Federal Ministry of Agriculture and Food Security, Federal Ministry of Health, Federal Ministry of Industry Trade and Investment, Global Alliance for Improved

Nutrition, GIZ, International Institute of Tropical Agriculture, National Agency for Food and Drug Administration and Control, National Council on Nutrition, the private sector, research institutions, Standard Organization of Nigeria, The Federal Ministry of Health and Social Welfare, World Health Organization, and World Food Programme.

E. Stakeholder Engagement

In preparation for revising the GFSS Nigeria Country Plan, the Feed the Future coordinator led the team in conducting a series of in-person meetings and quarterly stakeholder engagement conferences throughout the previous Feed the Future phase (2018-2023). These engagements involved a wide range of stakeholders engaged in Feed the Future programming, as presented in Annex 1. They included relevant U.S. government departments/agencies, national and local Nigerian government entities, bilateral and multilateral donors, international and regional organizations, financial institutions, civil society organizations, private sector entities, agricultural producers, and research institutions. The engagement process emphasized inclusive participation, ensuring that local partners at all levels, including marginalized groups were involved, amplifying their voices and perspectives. This stakeholder engagement strategy aimed to foster a diversity of insights and perspectives, contributing to more effective approaches to address food security, economic growth, resilience, and nutrition. The engagements also facilitated collaboration and resource leveraging among development partners. As the new GFSS Country Plan is developed, USAID/Nigeria will continue engaging stakeholders through in-person interactions and quarterly Feed the Future stakeholder conferences, ensuring ongoing collaboration and alignment with key partners.

To strengthen engagement and coordination efforts, the USAID/Nigeria Feed the Future coordinator established a co-chair position on the Agriculture Donor Working Group. Participation in this working group will enhance the mission's engagement with other donors, non-governmental organizations, implementing partners, GON, state governments, and Nigerian stakeholders to advance the GFSS Country Plan. Through regular meetings, field visits, and workshops, the working group provides a platform for USAID/Nigeria to consistently engage with GON ministries and other donors, and collaboratively develop evidence-based policies that enhance implementation efforts. This collaborative approach supports effective management of cascading risks, leverages networks, promotes adaptation and innovation, and fosters inclusive development and localization. Additionally, the Feed the Future coordinator will engage with interagency partners on a quarterly basis, at a minimum, to discuss in-country programming and coordination. These regular interagency meetings will ensure ongoing coordination and information sharing among relevant partners, contributing to cohesive and collaborative implementation of the country plan.

Annexes

Annex 1: Engaged Stakeholders

U.S. Government Agencies	
United State Department of Agriculture	U.S African Development Foundation
State Department (Economic office)	U.S. International Development Finance Corporation
Donor Groups	
African Development Bank	Foreign Commonwealth Development Office
Bill and Melinda Gates Foundation	Japanese International Cooperation Agency
Deutsche Gesellschaft für Internationale Zusammenarbeit	World Bank
Financial Institutions	
Ecobank	Sterling Bank Plc
First City Monument Bank	Taj Bank
International Institutions	
African Agricultural Technology Foundation	International Fertilizer Development Cooperation
Food and Agriculture Organization	International Potato Center-Nigeria
Helen-Keller International	World Food Programme
International Fund for Agricultural Development	WorldFish
International Non-Governmental Organization	
Creative Associates	International Rescue Committee
Cultivating New Frontiers in Agriculture	Mercy Corps
Catholic Relief Service	Save the Children International
Farmer Monitor Africa	TechnoServe
Global Alliance for Improved Nutrition	Tetra Tech International
Heifer International	Winrock International

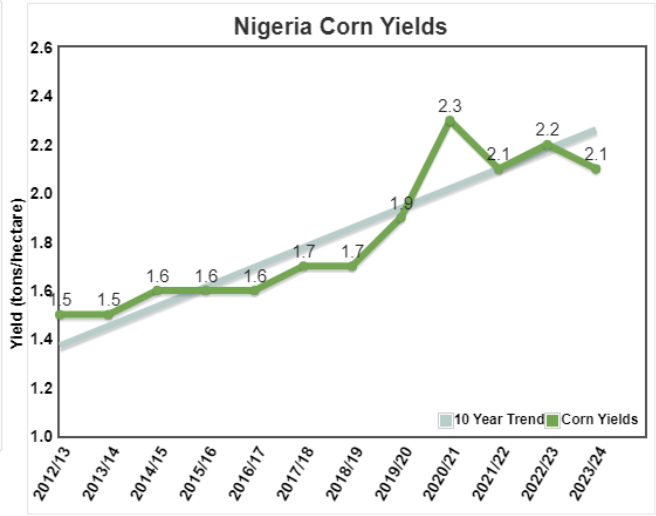
Local Non-Governmental Organization	
Action Against Hunger-Nigeria	Nuru Nigeria
Sahel Consulting	
Private Sector	
Agribusiness Innovation International Limited	Olams-Foods
Farm Radio International	Premier Seeds Nigeria Limited
Flour Mills of Nigeria	Sahel Agriculture and Nutrition Limited
Hello Tractor	Syngenta Nigeria Limited
Indorama Fertilizer	Thrive Agric
KickStart International	TomatoJos
Ministries, Department, and Agencies	
Federal Ministry of Agriculture and Rural Development	National Bureau of Statistics
Federal Ministry of Industry, Trade, and Investment	Nigerian Export Promotion Council
Forestry Research Institute of Nigeria	Small and Medium Enterprises Development
National Agricultural Land Development Authority	
Research Institutions	
Alliance for a Green Revolution in Africa	International Food Policy Research Institute
Agricultural Research Council of Nigeria	International Institute for Agricultural Development
International Crops Research Institute for the Semi-Arid Tropics	Nigerian Stored Products Research Institute
Farmers Associations/Producer Organizations	
African Women Entrepreneurship Program	Small Scale Women Farmers Association
African Women in Agricultural Research and Development	Tomatoes and Orchard Producers Association of Nigeria
Feed Nigeria Summit	Tractor Owners and Operators Association
Nigeria Agribusiness Group	Women in Agriculture- Nigeria
Small Scale Farmers Organization in Nigeria	
Other Partners	
Harvest Plus	

Annex 2: Details on selected value chains

Maize

Nigeria is the second largest producer of maize in Africa after South Africa and the leading producer in West Africa (Wossen et al. 2023). Nigeria's maize yield stands at 11 MMT with a steady increase in yield from 1.5 ton (t) per hectare in 2012/13 to 1.7 t/ha in 2017/18 reaching 2.2 t/ha in 2022/23 (Figure 1). The increase in Nigeria maize yield is due to improved productivity and land expansion by 984 and 450 percent respectively. Holding the inputs and land use constant, in the last decade Nigeria produced ten times more maize per year. The increased availability of disease and pest resistant improved maize varieties along with fertilizer subsidies played a significant role in the expansion of maize cultivation in Nigeria (Byerlee 2020). One obstacle preventing Nigeria from being the leading producer in Africa is the farmers' reluctance to transition from the use of open pollinated variety (OPV) to improved hybrid seeds and the high cost of these improved maize seed varieties (USAID, n.d). According to the International Institute of Agriculture, less than 10 percent of Nigerian farmers use the hybrid maize variety, which gives higher yields than the OPV used by farmers. The low utilization can be attributed to limited awareness, high initial costs, and concerns about the need for consistent seed purchases. The challenge of poor yields leading to reduced maize output is exacerbated by post-harvest losses estimated to be about 20–30 percent of total maize production.

Figure 1. Nigeria Corn Yields, 2023



Source: USDA, 2023.

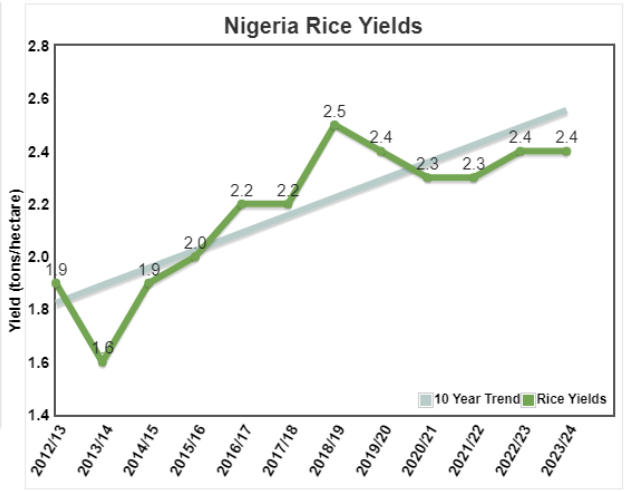
Meanwhile, Nigeria's annual maize demand for human consumption and animal feed production averages between 12–15 million metric tons, resulting in a production-demand gap of approximately two to four million metric tons each year (PwC, 2021). Closing this gap requires concerted efforts by players across the value chain. At the core of this effort is the need to accelerate awareness and widespread use of improved, disease-resistant maize seed varieties that can resist striga and fall armyworm infestation thereby boosting yield. According to IITA, Nigeria can close the maize supply-demand gap by increasing the number of farmers that use hybrid variety seed (Ibid.). The use of hybrid seed varieties has the potential to double the country's maize yield from the current two t/ha to over four t/ha, doubling supply.

Maize production is hampered by inadequate financing, especially from financial institutions due to most smallholder farmers lacking the collateral necessary to secure a loan. The agriculture sector only secures approximately 4.4 percent to total credit lent from 2019, and the majority of that credit supports rice and cocoa(Ibid.). Credit facilities and GON programs like CBN's Anchor Borrowers Programme, the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending, and the Feed the Future Advancing Local leadership, Innovation and Network program provide a bridge for the maize finance gap (MRR, 2022).

Rice

Rice yields have steadily increased from 1.9 t/ha 2014/15 to 2.4 t/ha in recent years (Figure 2). These yields are nevertheless lower than yields in Ethiopia where they were 3.5 t/ha in 2022/23 (USDA, 2023). They are also lower than neighboring Niger where rice yields were 4.8 t/ha in 2022/23 (Ibid.).

Figure 2. Nigerian Rice Yields, 2023



Source: USDA, 2023.

In the Nigerian context, there are several identifiable production constraints and areas that require improvement in the rice sector. These include the need to sustain incremental paddy production and to enhance the seed systems functionality. Mechanization in rice production and processing must be increased to reduce laborious tasks, improve efficiency, and lower production costs. Additionally, there is a need to sustain the expansion of domestic milling and processing of rice.

To foster growth in the sector, it is essential to increase access to finance across the entire value chain. Better coordination, monitoring, and evaluation of progress are also necessary for the industry's development. However, there are certain bottlenecks hindering progress, such as the land tenure system and policies that limit accessibility and availability of land for cultivation.

Another challenge is the dearth of viable seed for rice farming, which affects overall productivity. Additionally, there is resistance and reluctance among farmers to adopt technology and modern farming systems, which may hinder potential advancements. The weak fertilizer distribution system further exacerbates the problem by causing delays in resource availability for farmers.

The lack of financial resources is a significant constraint for farmers in acquiring agro-chemicals like herbicides and pesticides, which are crucial for effective pest and weed control. Moreover, the

relatively high and rising agrochemical prices in the economy put an additional strain on farmers' budgets.

For smallholder farmers, a persistent issue is their inability to process their own outputs, leading to poor sale prices (CNFA, n.d.). This inefficiency in processing limits their profits and economic growth potential. Addressing these constraints and prioritizing improvements in these areas can help to bolster the rice sector in Nigeria, leading to increased productivity and overall economic development.

Horticulture

Improving horticultural production offers significant opportunities for better livelihoods and nutrition outcomes. High-value commodities have the potential to increase farmer incomes, while also contributing rich micronutrients to diets. They also provide the opportunity for groups with less land access, like women and youth, to develop sources of income (Horticulture Innovation Lab, 2019). To develop horticultural value chains, there is a need to improve both production and demand through nutrition-related interventions. The largest barriers to horticultural production and consumption in Nigeria are as follow:

- Lack of access to inputs and finance
- Limited shelf-life
- Lack of access to extension services
- Poor transport, handling, and storage
- Poor pest and disease management
- Inadequate cold storage to connect rural northern production to urban demand in the south
- High levels of informality among wholesale traders
- Lack of access to market data

Currently, horticultural crops are mostly manually cultivated by subsistence farmers. Traditional mixed vegetable cropping systems are the most common, with tomatoes, onions, and amaranth commonly combined in mixed cropping and livestock systems (Egyir et al., 2022). Commercial seeds are typically used for the most common commodities, while informal and local varieties are used for other vegetables– in particular, indigenous leafy greens selected for local climate, grower, and consumer preferences (Ibid.). Opportunities for improved seeds include considering transportation, handling and storage, and disease and drought tolerance to improve resilience.

Improved access to inputs will be necessary for farmers to access the higher return on investment available through horticultural production. Extension services can improve the effectiveness of fertilizer use through the proper application for local soil and crop needs. With poor road infrastructure and the Russia-Ukraine conflict raising fertilizer prices, expanding irrigation and the adoption of improved seeds can reduce risks and incentivize farmers to invest in fertilizers (Ibid.).

Climate and environmental challenges will also need to be addressed to improve resiliency in horticultural supply chains. Pests and diseases are a common constraint for Nigerian horticulture production, and extension for proper pesticide use and field hygiene can help farmers improve their yields. With most of the production in Nigeria being rain-fed, expanding irrigation will be necessary to mitigate against the increasing impact of climate change on precipitation volatility (Ibid.).

G. Notes and References

Notes

[i]₦137,430 naira per year. Used exchange rate from Google Finance to translate to USD from March 13, 2020 (before COVID-19).

1. An index that measures the percentage of households in a country deprived along three dimensions – monetary poverty, education, and basic infrastructure services – to capture a more complete picture of poverty.
2. Intermittent aeration - the reduction of the aeration time of the biological reactor by introducing periods without oxygen supply for the denitrification process
3. LGAs (subject to change): Kano - Bunkure, Dawakin Kudu, Fagge, Garun Mallam, and Kura. Kaduna - Ikara, Jema'a, Kudan, Lere, Sabon-Gari, and Soba. Nasarawa - Awe Karu, Lafia, and Toto. Plateau - Bassa, Jos North, Jos South, Pankshin, and Riyom. Sokoto - Bodinga, Gawabawa, Sokoto North, Sokoto South, and Tureta. Zamfara - Bukura, Birnin Magaji, Bungudu, Gusau, and Shinkafi.

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