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

Global Food Security Strategy (GFSS)

Bangladesh 2023-2027

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Acronyms

BBS	Bangladesh Bureau of Statistics
BPC	Bangladesh Planning Commission
BPD 2100	Bangladesh Delta Plan 2100
CHT	Chattogram Hill Tracts
DC	Developing Country
DHS	Demographic and Health Survey
DAE	Department of Agricultural Extension
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign Direct Investment
FY	Fiscal Year
GAP	Good Agricultural Practices
GED	General Economics Division
GDP	Gross Domestic Product
GFSS	Global Food Security Strategy
GoB	Government of Bangladesh
HPNSP	Health, Population and Nutrition Sector Programme
ICT	Information and communications technology
IEDCR	Institute of Epidemiology, Disease Control and Research
IFC	International Finance Corporation
IFPRI	International Food Policy Research Institute
IPC	Integrated Food Security Phase Classification
IRRI	International Rice Research Institute
LDC	Least Developed Country
MIYCN	Maternal, Infant and Young Child Nutrition
MoA	Ministry of Agriculture
MOHFW	Ministry of Health and Family Welfare
MoP	Ministry of Planning
MoA	Ministry of Agriculture
MOEF	Ministry of Environment, Forest, and Climate Change
MOP	Muriate of Potash
MPI	Multidimensional Poverty Index

MRR	Feed the Future Innovation Lab for Markets, Risk and Resilience
MSME	Micro, Small, and Medium Enterprise
NSAPR	National Strategy for Accelerated Poverty Reduction
NIPORT	National Institute of Population Research and Training
PAHO	Pan American Health Organization
RMG	Ready-Made Garments
TFR	Total Fertility Rate
UFC	Under Five Children
UMIC	Upper Middle-Income Country
UN	United Nations
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization

Currency Conversion Rate

1 US Dollar = 107.09 Bangladeshi Taka (May 24, 2023)

A. Country Context

Country Priorities

The U.S. Government's (USG) Global Food Security Strategy (GFSS) seeks to sustainably reduce global hunger, malnutrition, and poverty (USG 2024). Since becoming a Feed the Future (FtF) target country in 2010, the USG has worked in partnership with the Government of Bangladesh (GoB) and national stakeholders to pursue the GFSS objectives of 1) Inclusive and sustainable agricultural-led growth, 2) strengthened resilience among people and systems, and 3) a well-nourished population especially among women and children (USG 2018). As the FtF initiative enters its third phase, the USG is revising the U.S. GFSS Country Plan for Bangladesh to reflect current and emerging challenges and development priorities for FY 2023-2027. The GFSS aligns with the GoB's priorities and approach to sustainable and inclusive development.

The GoB is currently implementing its 8th Five-Year Plan (8FYP). Covering the period of July 2020 to June 2025, this strategic plan presents national priorities, including a commitment to achieving the United Nations (UN) Sustainable Development Goals (SDGs). The results framework for the 8FYP lays out a logical framework for accomplishing these priorities that emphasizes accelerated and inclusive growth, poverty eradication, and good governance (BPC 2020). The 8FYP aligns with the GoB's broader Vision 2041, which presents a roadmap to eliminate poverty by 2031 as part of a national strategic plan to become an Upper Middle-Income Country (UMIC) (MoP, 2020); the Delta Plan 2100, which details a comprehensive plan for promoting economic growth, environmental conservation, and climate resilience (MoP 2018). As part of the GoB's commitment to "Managing for Development Results," the Ministry of Planning has put into place a system for measuring and reporting results from public investments in development initiatives (MoP 2008).

These comprehensive development strategies complement other ongoing GoB initiatives to address agriculture, poverty, food security, nutrition, and resilience. An illustrative list of these plans is included below:

- The Ministry of Agriculture (MoA) has a National Agriculture Policy – 2018, which aims to improve socioeconomic conditions by increasing productivity and production of crops, diversifying crops, improving marketing systems, and ensuring profitable agriculture and efficient utilization of natural resources (MoA 2018), and is operationalized through bi-annual plans of action.
- The Ministry of Food (MoF) has a National Food and Nutrition Security Policy (NFNSP) Plan of Action (2021-2030), which prescribes a multi-sectoral approach towards achieving food security- and nutrition-related SDGs and national commitments (MoF 2021).
- The Ministry of Health and Family Welfare's (MOHFW) 4th Health and Population and Nutrition Sector Programme (HPNSP) (2017-2022), which presents interventions and targets for ensuring equitable access to quality health care and nutrition-related services for all citizens (MOHFW 2017).
- In 2017, MOHFW also launched the Second National Plan of Action on Nutrition (NPAN2) covering the period 2016-2025. NPAN2 outlines the goals of improving the nutritional status of all citizens and reducing all forms of malnutrition, with a focus on children, adolescent girls, pregnant women, and lactating mothers, using a multisectoral

approach across 22 ministries including health, education, agriculture, fisheries and livestock, environment, social protection, women's empowerment, and disaster management (MOHFW 2017).

- The Ministry of Environment, Forest, and Climate Change's (MOEFCC) has a National Adaptation Plan of Bangladesh (2023-2050), that articulates a path towards climate-resilient development and reduced climate risks and vulnerabilities (MOEF 2022).

These GoB strategic plans are operationalized by additional policies and laws. Those most relevant to agriculture and food security include the National Agricultural Extension Policy 2020, the National Agricultural Mechanization Policy 2020, the Bangladesh Good Agriculture Practices Policy 2020, the National Organic Agriculture Policy 2016, the Ground Water Utilization in Agriculture Policy 2019, the Marine Fisheries Ordinance 2020, the National Women Development Policy 2011, and the Animal Welfare Law 2019. These laws and policies reflect the importance of equity and the environment with respect to the government's strategy for transforming the agricultural sector. The GoB introduced the National Food and Nutrition Security Policy (NFNSP) to cover the period of 2020 to 2030, coinciding with the target year of 2030 set by the UN to achieve the SDGs. This comprehensive nutrition policy framework builds on and updates the past policies, such as the National Food Policy (2006), National Nutrition Policy (2015), National Social Security Strategy (2015), and previous and current versions of the National Agricultural Policy (2018, 2020). The NFNSP is expected to guide the implementation of the current 8FYP and formulation of the 9th Five Year Plan. In addition to these policies and strategic plans, the GoB has made commitments to improve key hunger and food insecurity indicators in multilateral forums like the United Nations Food Systems Summit (UNFSS) and the Nutrition for Growth (N4G) pledge.

Hunger and Malnutrition

Bangladesh has made remarkable progress in strengthening food security and nutrition since its independence in 1971, standing out as a success story in the global fight against hunger. The prevalence of undernourishment decreased from 37 percent in the mid-1990s to an estimated 11 percent in 2020 (FAO 2023). The Global Hunger Index improved from 33.9 (serious) to 19.6 (moderate) between 2000 and 2022 (GHI 2023). The proportion of under five children (UFC) moderately or severely stunted has steadily declined from 55 percent in 1997 to 24 percent in 2022. UFC mortality decreased during this period from 110 to 31 deaths per thousand live births (NIPORT 1997, 2023). This represents "one of the most sustained reductions in child undernutrition in the world" (Headey et al. 2015).

Much of Bangladesh's progress on this front can be attributed to policy measures and social safety net investments undertaken by the government, including helping the country achieve rice self-sufficiency and pursuing an ambitious public health agenda (World Bank 2020). The MOHFW's Health, Population and Nutrition Sector Programme (HPNSP) is intended to "ensure equitable and quality health care for all citizens in Bangladesh by improving access to and utilization of evidence-based high-impact health, population and nutrition related services; strengthened systems to support service delivery; and effective stewardship and governance." The HPNSP set targets for household- and population-level indicators of health and nutrition. The GoB pursues these targets through a multi-sectoral approach implemented by the MOHFW and relevant ministries that integrates Maternal, Infant and Young Child Nutrition (MIYCN), water, sanitation, and hygiene (WASH), food security, and women's empowerment. This government-wide program has met and exceeded many of these targets under the current, fourth phase of implementation (4th HPNSP) (NIPORT and ICF 2023).

Despite this encouraging progress, there is persistent malnutrition in parts of the country and segments of the population stemming from issues of food availability, access, and utilization:

Table 1. Food Availability, Access, and Utilization in Bangladesh

Component of Food Security	Status in Bangladesh
Food Availability	Growth in overall food production has outpaced population growth, yielding higher per capita food availability over time. Availability of rice has kept real prices generally low compared to wages for Bangladesh's most important staple crop. Domestic rice production meets demand most years, but the expansion of rice production has led to a loss in diversity of crops produced, particularly other grains, fruits, and vegetables. The livestock and fisheries sectors are growing slowly, despite setbacks during the COVID-19 pandemic. The pandemic impacted both national and global supply chains, leading to shortages of certain production inputs and foods.
Food Access	Agricultural production is strongly market-oriented with the prevalence of rice as a cash crop. The population increasingly relies on markets to access most foods as more workers shift to the formal sector and non-farm jobs. The poverty rate has been dramatically reduced, contributing to greater purchasing power for consumers. However, many households cannot afford the cost of the recommended diet based on food-based dietary guidelines. More recently, supply chain disruptions, high-inflation associated with the war in Ukraine, and loss of income associated with the COVID-19 pandemic are driving cases of acute food insecurity and stress among the poorest households. Government social protection and safety net programs have helped support consumption smoothing during shocks and stresses. The GoB maintains a strategic reserve of cereal stocks for emergency off-takes and distribution to poorer households. Furthermore, there are "pockets" of the country which chronically struggle with food access due to Bangladesh's unique geographical features (e.g., in the riverine and ever-changing sand and silt masses called *chars*).
Food Utilization	Average diets fall short of national dietary guidelines and consumption patterns have shown little improvement in recent years. Progress in expanding access to improved drinking water and sanitation facilities has led to improved food utilization and nutritional outcomes. Rising rates of obesity, particularly among women, reflects shifting consumption patterns towards more processed foods.
Sources: IFPRI, 2023; Islam et al., 2023; BBS, 2022a; BBS, 2022b, NIPORT and ICF, 2023; and Sayeed and Yunus, 2018.	

Health and nutritional outcomes for children have improved in recent years. Since 2004, Bangladesh has seen a four-fold increase in early initiation breastfeeding, an effective practice for reducing neonatal mortality (Ahmmed et al. 2021). The rate of UFC mortality also continues to decline (World Bank 2023). However, the 2022 Bangladesh Demographic and Health Survey (DHS) reported 24 percent of UFC are still stunted. Between 2017-18 and 2022, the percentage of UFC who were underweight did not change, while wasting increased slightly from 8 percent to 11 percent. The

proportion of children who were fed an “acceptable diet” declined from 35 percent to 29 percent, and there was also a 20 percent drop in the number of children who were fed an adequate number of times each day during this period (NIPORT and ICF 2023). Furthermore, the percentage of exclusively breastfed UFC has decreased from 65 percent in 2018 to 55 percent in 2022 (NIPORT 2018, 2022).

While Bangladesh is considered self-sufficient in terms of caloric attainment (i.e., domestic production of calories meets consumption demand), there remain significant challenges for diversifying diets and improving access to and utilization of foods. Bangladesh produces enough rice, meat, and fish for national self-sufficiency, but increases in the price of nutrient dense foods have outpaced the increase in the price of staples over time (GoB 2019). Bangladesh has made incremental progress towards greater dietary diversity as consumption patterns shift from rice and other grains to more nutrient-rich foods. Between 2010 and 2022, average calorie consumption increased by 3.2 percent to reach 2,393 calories per person per day (BBS 2022a, 19). During the same timeframe, consumption of pulses increased by 19.6 percent, while meat and fruit consumption more than doubled (Ibid. 18). However, average diets still fall short of national dietary guidelines, and progress in improving consumption patterns has slowed in recent years. Between 2017/18 and 2022, the proportion of children who were fed an adequately diverse diet stayed nearly constant (NIPORT and ICF 2023, 55). Anemia among women and girls of reproductive age remains stubbornly high at 36.7 percent, as well as for UFC at 43.1 percent (WFP 2021).

A 2022 study by researchers at the University of Dhaka comparing retail prices against food-based dietary guidelines found that the recommended daily diet is unaffordable for about 43 percent of households (Islam et al. 2023). Common financial and physical barriers to food include low incomes, high poverty, poor access to roads, and long distances to markets, particularly in rural areas (IPC 2022). Residents in rural areas are disproportionately unable to afford components of the recommended diet, and households in general tend to spend disproportionately more on staples at the expense of spending less on nutrient-rich foods like fruits and dairy (Islam et al. 2023). Consumption of starchy staples represented one hundred thir37percent of the recommended dietary amount in 2016, contrasted with vegetable consumption at 54 percent, fruits at 23 percent, and dairy at only 13 percent of recommended amounts (Mehdra et al. 2022, 3). The overconsumption of salt, sugar, oil, and rice is attributed to the rise of urban lifestyles, advertising, and time poverty, as well as to the higher prices and food safety concerns about fruit, vegetable, and animal products (GoB 2019, 7).

The proportion of undernourished women of reproductive age decreased from 30 percent to 12 percent between 2007 and 2018. However, the proportion of Bangladeshi women who are overweight or obese increased from 12 percent to 32 percent during this same period (NIPORT and ICF 2020, 177). Obesity is seen more among women residing in urban areas (43 percent), than in their rural counterparts (28 percent). The steady increase in rates of overweightness and obesity is seen within the general population, but is most prevalent among urban, never-married women (World Obesity 2023; Tanwi et al. 2019), indicating the need for interventions in the food system to make nutritious diets more accessible, affordable, and attractive. Obesity puts a strain on the overall healthcare system and is a key risk factor for many noncommunicable diseases such as coronary heart disease, hypertension, and stroke, certain types of cancer, and type 2 diabetes (PAHO 2016).

Nutrition and hygiene are inextricably linked, with children in unsanitary conditions less able to absorb nutrients and undernourished children more vulnerable to fecal contamination from the environment (Mahmud et al. 2016). Progress continues to be made in WASH indicators, as 92 percent of households now have access to improved toilet facilities, and the number of households that openly defecate has declined to under 1 percent (BBS 2022a 9), a crucial feat in a densely populated and flood-

prone country. However, food safety issues persist along the food chain with food adulteration, pesticide residues, microbiological contamination, and other challenges contaminating foods (Suman et al. 2021). The number of children with recent diarrhea has remained essentially unchanged, with a 0.1 percent increase between the 2018 and 2022 DHS reports. The GoB has taken important measures to improve regulatory systems that improve both local food safety outcomes and access to international markets (Mudjitaba-Fernandez 2020).

Poverty and Socio-Economic Context

Bangladesh has made significant progress on poverty reduction, emerging as a Lower Middle-Income Country (LMIC). The country is on track to formally graduate from Least Developed Country (LDC) status in 2026 (USAID, 2023). Between 2000 and 2022, poverty declined from 48.9 percent to 18.7 percent and extreme poverty declined from 34.3 percent to 5.6 percent (BBS 2022 22). Using the international poverty line of $2.15, estimated poverty went from 33.3 percent in 2000 to 9.6 in 2022 (World Bank 2023). Poverty is more prevalent in rural areas (20.5 percent) than urban areas (14.7 percent). Between 2010 and 2019, the economy grew on average between 5.6 and 7.9 percentage points a year (World Bank 2023). Much of this period's growth was driven by the ready-made garment (RMG) industry and was consequently characterized by rapid urbanization and structural transformation. There have been significant improvements in the standard of living of households in Bangladesh. Between 2011 and 2022, increases were recorded in households with access to electricity (60 percent to 99 percent), households with improved sanitation facilities (34 percent to 59 percent), and residents with access to basic handwashing facilities (25 percent to 57 percent). Household ownership of consumer durables also increased during this period, including ownership of a refrigerator (14 percent to 53 percent), television (40 percent to 50 percent), and ownership of a mobile phone (78 percent to 98 percent). The population has also made gains in educational attainment and literacy. Bangladesh has achieved near universal primary enrollment as well as gender parity in equal access to education (BBS 2022b; NIPORT and ICF 2023). The literacy rate has also steadily increased from 57.9 percent in 2010 to 74 percent in 2022, with the greatest gains made in rural areas (BBS 2022a). During this period, modest gains were made in expanding access to maternal care and childcare services (NIPORT and ICF 2023).

With the rise of the RMG industry in Bangladesh, the country's economic health is heavily tied to factors (exports, remittances, and fuel prices) that are subject to global volatility. The rate of poverty reduction and job growth has slowed in the last ten years in Bangladesh, reflecting broader economic trends (World Bank, 2023). The slowdown in poverty reduction has been most noticeable in the agricultural sector, which has been impacted by rapid urbanization and development. The persistence of poverty in Bangladesh has disproportionately impacted women and rural areas that depend on agriculture for their livelihoods. Women took on a greater share of the agricultural labor force during this past decade and were less likely to benefit from the growth of other sectors (Yoshino et al., 2021). The Multidimensional Poverty Index (MPI) identifies 24.6 percent of Bangladeshis as "multidimensionally poor," meaning that they suffer from deprivations across one or more of the three dimensions of poverty: health, education, and living standards (OPHI 2022). The MPI describes a further 6.5 percent of the population as experiencing "severe poverty" and 18.2 percent as "vulnerable" to poverty. Bangladeshis are most likely to experience deprivations in terms of housing, cooking fuel, years of schooling, and assets.

While Bangladesh has shown progress in reducing overall poverty, income inequality has continued to rise over the years to reach a Gini coefficient of 0.50 in 2022 (World Bank 2023). Over the last ten years, disparities in poverty have widened among different regions of the country (OPHI 2022, 7-

8). Increases in poverty inequality is partially attributed to lower quality education and higher fertility rates in rural areas, which still make up most of the population. While dependence on agriculture decreased nationally, greater decreases were experienced in the eastern divisions (22 percent) than in western divisions (12 percent).

Agriculture

The agriculture sector contributed 11.6 percent to the national GDP and contributed 1 percent of the country's export earnings in 2021 (World Bank 2023). Around 37 percent of the economically active population in Bangladesh were engaged in agriculture, 22 percent worked in industry, and the remaining 41 percent worked in services. A broader look at Bangladesh's food system, however, better highlights the important role of agriculture in the economy. A study conducted by the International Food Policy Research Institute (IFPRI) estimated that the agrifood system in Bangladesh (i.e., including off-farm activities) was close to 30 percent of GDP and employed 59 percent of the workforce, 26.5 million workers (Diao et al. 2023). Labor productivity in agriculture has steadily increased at a rate of 3.3 percent over the period 1991 to 2019 from about $500 per person to $1,300 per person, but still lagged behind the labor productivity in industry ($5,600) and services ($5,000) in 2019 (World Bank, 2023).

Low agricultural productivity limits poverty reduction in rural areas, where agriculture supports 54 percent of employment compared to 43 percent nationally (Yoshino et al., 2021. vi, 18). Further impeding market access, income growth, and poverty reduction in these areas is the limited integration between the peripheral economies of rural areas with the dominant economic centers of urban areas (Ibid.). Improving urban-rural connectivity is central to the development of high-value agricultural value chains and the agro-processing industry in Bangladesh. These developments are highlighted as crucial for the vertical (post-harvest, processing, transportation, etc.) and horizontal (within supply-chain segments) diversification of Bangladesh's agri-food system, which would facilitate higher agricultural productivity and faster growth of rural economies (World Bank 2020).

Gender

Although women play a key role in agriculture, they face persistent economic and social constraints. While Bangladeshi women's participation in the labor force has increased overall, their participation remains relegated to low-paying sectors. This is partly due to disparities at higher levels of education. Bangladeshi males complete upper secondary education at a nearly 50 percent higher rate than females due to early marriage, childbirth, and other obstacles (UNICEF 2019). Between 2006 and 2016, women's share in the agricultural labor force increased from thirty-four to 44 percent (Yoshino et al. 2021, 6). Among rural women, 76 percent were engaged in agriculture as opposed to only 44 percent of men (Moyeen et al. 2022, 51). Women's role in agriculture is often relegated to lower-paying roles in the value chain, such as cultivation, harvesting, and small-scale processing (Ibid., 51). With women's share of the agricultural labor force gradually increasing, women's livelihoods are also disproportionately vulnerable to the effects of climate change (ibid). A 2020 UN Women's report found that Bangladeshi women take on 4.3 times more unpaid work than men, including childcare, domestic, and agricultural work (Women Count 2020). Of unpaid rural women, 87 percent work in agriculture. Women wage earners in the agricultural sector earn on average 65 percent of the amount earned by men. In southwestern Bangladesh, FtF programming has played an important role in strengthening women's empowerment. The improvement in women's empowerment in the 2018-2023 FtF ZOI increased from 30 percent of women in 2010 to 68 percent in 2018/2019 (IFPRI 2023).

Limited access to resources and opportunities also impacts the livelihoods of women engaged in agriculture. Bangladeshi women are less likely to own or inherit land, and female-headed household

farms are on average half the size of the farms of male-headed households (Moyeen et al. 2022, 59). Limited land access and tenure make it more difficult for women to access financial services (e.g., credit, banking, insurance) and extension services, resulting in a negative impact on productivity and profit (ibid., 60). Inadequate market linkages, access to information, and the absence of a supporting environment limit women's access to skill formation, profitable work, and entrepreneurship opportunities.

Many rural women also experience restricted mobility due to cultural norms (Yoshino et al. 2021). This is reflected in the drastically lower rates of migration among women, than among men in Bangladesh. While more women are starting to migrate internationally, they made up only 19 percent of all Bangladeshi migrant workers in 2015 (Shamim and Holliday 2018). Internally, women are more likely to migrate within Bangladesh for family purposes than to pursue economic opportunities (Biswa, et al. 2019). Women participate in the labor force at higher rates than in other South Asian nations, but their participation rate still falls below the global average (ibid.).

Youth

Youth between the ages of 15 and 29 make up 27.8 percent of Bangladesh's population and over half of the population is under the age of 30 (BBS 2022a, 14). Youth have been disproportionately affected by the slowdown in job growth, with youth unemployment on the rise since 2010 (Yoshino et al. 2021, 6-7). According to the 2022 census, 30 percent of the population between the ages of 15-29 were not engaged in education, employment, or training. Of those, 87 percent are women. Youth are also more likely than other demographic groups to work in the informal sector, which was hit hard during the COVID-19 pandemic (Ibid. 10). Youth working in the informal sector were especially likely to become unemployed during the pandemic, or not participate in education or training activities. The RMG sector has created many jobs for youth but remains vulnerable to external shocks. There is a need to bring youth into the formal sector and create economic opportunities in other sectors, such as agribusiness, information technology, and pharmaceuticals.

Despite advances in access to education, quality of instruction remains a challenge. Many children are not acquiring the foundational skills they need for continued learning and to enter the workforce. A 2013 survey conducted by the Bangladesh Bureau of Statistics and International Labour Office, showed a strong correlation between a young person's labor market transition and their level of education: 46.7 percent of tertiary-educated youth had completed their transition to a "stable" or "satisfactory" job, as compared to 30.5 percent of youth with secondary education and 41.2 percent of youth with primary education (ILO, 2016. 1). The survey also found that a majority (62.1 percent) of employed youth in Bangladesh are undereducated for their current job (Ibid. 1). Reforms to education curriculum, investments in vocational training, and linkages to the private sector will be critical for preparing youth for emerging opportunities.

Bangladeshi youth face a range of barriers to participate in the agricultural sector, including limited access to land, markets, and financial services, insufficient knowledge, and limited involvement in policy dialogue (FAO, 2014). Employment in the agricultural sector is viewed negatively, being associated with hard labor, financial risk, and unstable incomes. Changing this perception will require moving beyond the farm to integrate youth in roles across agricultural value chains (Barbarasa 2019). Young people are more likely to be early adopters of new agricultural practices and technologies and often serve as intermediaries for broader dissemination of knowledge and innovations (FAO 2014). Potential entry points for youth include in providing professionalized services, such as mechanized land preparation, crop treatments, processing, and marketing support (Ibid; Barbarasa, 2019).

COVID-19

The COVID-19 pandemic led to disruptions in the supply chains of agricultural inputs, including fertilizers, agro-chemicals, machinery, and seeds. Aquaculture, poultry, and livestock production systems were impacted by disruptions to the animal feed sector. Government-mandated closures of agribusinesses associated with the pandemic constrained farmers' access to inputs, while restrictions on movement and gatherings resulted in labor shortages and barriers to getting products to the market. Farmers also encountered output market challenges with fewer buyers purchasing agricultural commodities, particularly perishable goods (e.g., fruits and vegetables, meat, fish, milk, and eggs) (Amjath-Babu et al. 2020).

The pandemic revealed that while great gains have been made in alleviating poverty, many families are vulnerable and are at risk of falling into poverty during large shocks (Ibid., 14). The poverty rate increased by one percentage point from FY 2019 to FY 2020. Microsimulations by the World Bank estimate that the upper poverty rate is 5 percent higher than a scenario where COVID-19 had not occurred. IFPRI found that during the COVID-19 period, many households experienced income loss, with higher-income households falling into poverty and lower-income households falling deeper into poverty (Ahmed et al. 2020b). IFPRI also found that the prevalence of moderate or severe household food insecurity worsened considerably during COVID-19 (ibid.).

Agriculture was less impacted by the pandemic compared to the industrial and service sectors due to relatively stable production. However, the loss or disruption to overall livelihoods contributed to a rise in food insecurity (Yoshino et al. 2021). RMG exports collapsed at the onset of pandemic-related restrictions, contributing to the 16.8 percent decline in exports during FY 2020. Women make up the majority of garment workers. Real GDP growth dropped to 3.5 percent that same year. Though exports slowed and threatened many jobs, employment and outputs recovered during the first half of FY 2021 and Bangladesh was the only South Asian country to maintain a positive growth rate (ibid. 9-12).

Russia-Ukraine Conflict

Supply chain constraints attributed to Russia's invasion of Ukraine have driven higher global prices for fuel, fertilizer, vegetable oil, and wheat. The price of staple food products reached a record high in March 2022 in Bangladesh. Bangladesh imports 85 percent of its wheat (primarily from Canada, Ukraine, Australia, Russia, and India up until it banned wheat exports in May 2022), which accounts for 7 percent of the calories consumed by the population. With countries restricting exports, vegetable oil prices spiked in 2022, but declined again in 2023 amid improved global supplies (FAO). An estimated 38 percent of the calories consumed are projected to be impacted by export restrictions and their corresponding impact on driving higher prices for imported goods (Mamun et al. 2022). The rise in global fertilizer and feed prices are expected to impact food production. 75 percent of Bangladesh's potash needs are supplied by Russia and Belarus. 30 percent of corn is imported, and 95 percent of soybeans are imported, and the rise in their prices are likely to impact the production of protein sources for cattle, poultry, and fish feed (Ibid.). An IFPRI model predicts that over 3 million individuals in Bangladesh will become malnourished due to global spikes in food prices and their impact on consumption patterns by the end of 2023 (IFPRI 2023).

Status of and Greatest Constraints within Bangladesh's Agrifood System

Bangladesh's agricultural production increased steadily in the last half century driven by improvements in rice production. Crop and livestock production have continued to grow during this period, outpacing population growth. The country has become nearly self-sufficient in rice production through a national strategy to promote high-yielding varieties, fertilizer subsidies, and irrigation as part

of the Green Revolution and its associated combination of technologies and policies. This strategy led to a three-fold increase in rice production from 10 to over 30 million tons per year between the 1970s and late-2010s (World Bank 2020). Today Bangladesh is the third largest rice market globally with production and consumption totaling 36.4 and 37.7 million metric tons respectively in 2023/2024 (USDA/FAS 2023). An estimated 13 million farmers grow rice, covering some 11.6 million hectares. Rice production supplies 48 percent of total rural employment and contributes about 70 percent to the country's agricultural GDP (Sayeed and Yunus 2018, 1-2). There has been a general trend of declining real prices over the past 10-15 years; however, gains in land and labor productivity of rice cultivation have helped rice production be profitable for farmers (ibid. 2).

The outsized importance of rice in domestic production and policies has come with certain tradeoffs. These include lack of diversity in production systems and in diets, limited investment in other agricultural subsectors, and environmental degradation stemming from intensive rice production and irrigation development (ibid; World Bank 2020). There also remain considerable yield gaps in rice production despite widespread adoption of new technologies, indicating a need for good agricultural practices (GAP) and extension services to address pests and diseases (World Bank 2020, 27). Research has found that crop diversity *decreases* with farm size, implying that larger farmers specialize in fewer crops, focusing on rice and other cash crops, while crop diversity *increases* with proximity to towns that provide markets for purchasing inputs and selling outputs (Sayeed and Yunus 2018). There are signs that agricultural production systems are shifting and becoming more diverse overall. Between 1990 and 2009, there were increases in the production of potatoes, vegetables, and maize, while the production of wheat, pulses and oilseeds decreased substantially, alongside the area cultivated with these other crops. The expansion of the poultry and aquaculture sectors has driven increased demand for maize as a feed ingredient (FAO 2014, 18).

The relative importance of rice and agriculture overall is diminishing with the rapid growth of other sectors of the economy and of Bangladesh. Agriculture's share of the GDP (broadly defined to include fisheries, livestock, and forestry) was 55 percent in the 1960s before falling to 44 percent in the 1970s, to 32 percent in the 1980s, and to less than 12.5 percent in 2018 (Sayeed and Yunus, 2018, World Bank 2023). Recent decades have been marked by rapid industrialization and urbanization. These trends are reflected in the decreased share of employment in agriculture. While shares of employment in industry and services increased by four and six percentage points (respectively), the share of employment in agriculture decreased by nine percentage points (Yoshino et al. 2021, 3). This shift presents challenges to the agricultural sector as labor and investments are concentrated in other sectors of the economy.

Bangladesh loses about 1.75 percent of its arable land each year due to population growth, urbanization, and land degradation (Khan, 2022). Today, the average farm is smaller than 0.1 hectares in Bangladesh (World Bank 2023). Intensifying agricultural productivity is crucial, as the country must feed more people each year on less arable land. With the decrease in arable land and little opportunities for expansion, improvements in agricultural productivity will depend greatly on improved governance of existing land resources, better post-harvest handling and management practices to mitigate food waste and food safety issues, innovations in crop and livestock management to intensify production, and continued technological progress and uptake in the agricultural sector. Protecting Bangladesh's arable land from climate change, enhancing Bangladesh's soil quality, and maintaining the quality of the country's groundwater are also important to increasing agricultural productivity. Key constraints must be overcome to boost production, including addressing informal land markets, improper use of inputs, limited access to quality seeds, uncompetitive yields, and limited access to extension services, finance,

and market linkages (World Bank 2020, 9). Broadly, these constraints can be categorized as on-farm and off-farm constraints.

On-farm Constraints

The prevalence of smallholder farmers and lack of farmer cooperatives, associations, and producer groups presents challenges in disseminating agricultural information through the extension system (Yoshino et al. 2021. 8). Evidence from research also suggests that efforts to expand access to extension services often fail to be gender-inclusive; in other words, these efforts may increase total farmer participation, but not female participation. Efforts to collect data on gender outcomes, improve effectiveness for men and women, and prioritize women's participation are needed to ensure that women benefit from the expansion and improvements in extension services (Medendorp et al., 2022). Nevertheless, extension remains a key investment in improving technology adoption in agriculture; promoting GAPs that improve management of increasingly scarce inputs; and improving food safety at the producer-level. Information and communications technology (ICT) and digital agriculture hold promise for improving the reach of extension and advisory services for producers in Bangladesh. There is also a need to update and expand agricultural education and training curriculum to reflect advances in science and technology. Currently, Bangladesh's agricultural extension services are focused mainly on the production of food security crops and there is a lack of support for other value chain activities, such as post-harvest handling, food processing, and marketing (USAID, 2017). The lack of aggregation and relative isolation of Bangladeshi farmers also presents barriers for accessing affordable inputs, securing more favorable terms for financial services, and entering higher value, more profitable markets. Access to land and land tenure security also remains a significant constraint for much of the population (World Bank 2020).

Bangladesh's fertilizer consumption increased steadily between 1961 and 2020, from about 20 kg to 320 kilograms per hectare of arable land (World Bank, 2023). During the same time, fertilizer consumption outpaced domestic production requiring increased imports of fertilizer products over the last several decades. Bangladesh now imports about 80 percent of its fertilizers. The four major imported chemical fertilizer inputs in Bangladesh are urea, triple super phosphate, diammonium phosphate, and muriate of potash (MOP). Producers in Bangladesh apply about 6.9 million tons of chemical fertilizers annually. The GoB provides $2.7 billion in fertilizer subsidies to producers in the form of price-caps, which currently account for over two-thirds of the public sector's agricultural expenditures. Despite these subsidies the price of many fertilizers increased in recent years due to the global shortage of MOP. Russia and Belarus are the dominant suppliers of MOP. There is a need for extension services to provide producers with information on the right amounts and times to apply fertilizers to avoid inefficient- or over-use and improve the cost-effectiveness of fertilizer application during this period of increased prices (Islam and Beg, 2019).

Irrigation has been crucial for improving food security in Bangladesh. Massive investments in modern, small-scale irrigation systems, such as pumps, tube wells, and canals to tap both surface and large groundwater reserves, has contributed to dramatic increases in dry-season rice production (Sayeed and Yunus, 2018. 1). The irrigated *Boro*[1] rice crop consumes a majority of total crop irrigation and contributes the vast majority of total grain production (Rahman and Lovely, 2009). In 2017, 64.7 percent of the total cultivated land was irrigated (BADC 2020. 1). Much of Bangladesh's agricultural

[1] *Boro* is the dry-season rice crop and requires irrigation and water control. Prior to irrigation, it contributed little to total rice production. With the expansion of modernized irrigation systems, *boro* rice is now the most important crop in the country (FAO, 2018).

growth has been dependent on irrigation expansion, leading to issues of water resource management and conflict (MoA 2013. 19; MoA 2020. 1). These include increasing scarcity of high-quality irrigation water due to sediment load, depleting water tables, and arsenic contamination. Access to irrigation water is a pressing issue in many parts of the country, especially in light of depleting groundwater reserves.

Adoption of improved higher-yielding and resilient varieties is a key component to increasing yields and adapting to climate change. The GoB has enacted a series of seed policy reforms since the 1990s under the framework of the National Seed Policy. Nevertheless, the country's seed sector remains undeveloped and reliant on imports of quality seeds (Habib et al. 2022). Seed policies have largely focused on improving rice production via subsidies for seed and other inputs and public procurement of rice (World Bank, 2020. 8). Now that Bangladesh has achieved near self-sufficiency in rice production, it will be crucial to revisit the National Seed Policy. Policy reforms are important for promoting private investment in seed companies, scaling up seed production for non-paddy crops, strengthening certification and quality assurance systems, and improving market transparency to increase both demand and investment in the seed sector (Ibid., 10).

Access to finance is a constraint to both agricultural production and off-farm enterprises in the agri-food value chain (Ibid. 57). Finance enables farmers and agriculture-related enterprises to invest in productive assets, adopt new technologies, diversify production, and access higher-value markets. Bangladesh's finance sector has undergone rapid growth and embraced technologies to improve financial inclusion. However, demand for agricultural finance is two- to three-times greater than the current supply according to the Bangladesh Krishi Bank (Ibid.), and the International Finance Corporation (IFC) estimates the gap in finance to be around $2.8 billion (World Bank, 2019. IX). With the exception of microfinance institutions like Grameen Bank, eligibility criteria are often restrictive and requires either land ownership or the willingness of the landlord to put up collateral. Other barriers to accessing finance are high interest rates, excessive costs of borrowing, a difficult application process, and a lack of access to and knowledge of banking services (Quddus and Kropp, 2020). Bangladeshi women experience barriers to financial inclusion to existing services more acutely due to gaps in financial literacy, financial numeracy, and readiness to adopt digital financing (ADB, 2022). The high risk associated with agricultural investments is reflected in high interest rates, and there is a lack of financial services that are both appropriate and accessible for smallholder farmers (World Bank, 2020. 56).

Off-farm constraints

Given the limited opportunities to expand cultivated land and shrinking yield gaps for staple crops, there is a need for the labor force to shift from agriculture to off-farm employment in rural areas. With micro, small, and medium enterprises (MSMEs, defined as employing less than 150 persons) comprising 99 percent of off-farm enterprises in the agri-food chain, there is a need to expand financial services to promote growth. A survey of MSMEs revealed access to finance to be the third most important constraint in the business environment. Off-farm enterprises are a crucial sector for growing rural employment and incomes while also developing rural-urban food value chains (World Bank 2019, 3).

Other constraints in the agri-business environment include corruption and an inefficient bureaucracy (Moazzem 2021). Transparency International ranked Bangladesh 147th out of 180 countries in its 2021/2022 Corruption Perceptions Index (Transparency International 2023). Private sector entities often face difficulties in acquiring trade licensing, complex tax management and regulation, and the

capital required to begin business. The business environment is negatively impacted by the combined effect of corruption, bureaucratic inefficiency, and limited access to finance.

Recent estimates suggest that 145 million tons of food are wasted annually through postharvest losses in Bangladesh; that is enough to feed the entire Bangladeshi population for three months (IFPRI 2023). Losses are particularly high for horticultural commodities. Fruits and vegetables incur losses of about 33 percent and rice 10 percent (Mahmud 2020). Improvements are needed in storage, transportation, and handling to reduce postharvest losses and also address food safety risks. Agro-processing presents opportunities to both extend the shelf life and add value to food products. The agro-processing sector is currently valued at approximately $2.2 billion in Bangladesh, contributing 20 percent of the manufacturing sector's GDP and employing 2.2 percent of the country's total workforce. While the market for agro-processed products is increasing both domestically and internationally, products frequently suffer from safety and quality issues that begin at the farm level, where the use of chemical inputs are passed onto the processing, transportation, and storage levels. Food safety issues persist along the food chain with food adulteration, pesticide residues, microbiological contamination, and other challenges leading to food contamination. MSMEs comprise a large share of the agro-food processing sector, and the country's current food safety system and testing infrastructure is inadequate to assess levels of foodborne pathogens and other food safety risks. Food safety is a major constraint to the emerging agro-processing industry, negatively impacting the expansion of products in both local and international markets (Suman et al. 2021).

Investment

Foreign direct investment (FDI) in Bangladesh is currently limited; it decreased from a high of $2.83 billion in net inflows in 2018 to $1.56 billion in 2022. In 2022, FDI accounted for only 0.3 percent of the country's GDP. The current policy and regulatory environment discourages investments. Bangladesh ranked 168th out of 190 countries in the World Bank's Ease of Doing Business Index in 2021, receiving its lowest scores in measurements of the Ease of Paying Taxes, Trading Across Borders, Enforcing Contracts, and Resolving Insolvency (World Bank 2023). Corruption is similarly a challenge that discourages investment. Strengthening the enabling environment through reforms and capacity development will be critical for attracting investments, creating jobs, and ensuring the competitiveness of the private sector (Yoshino et al. 2020, ix).

Risk and Resilience Context

Climate Change

Bangladesh is ranked as the seventh-most vulnerable country to climate change on the 2021 Global Climate Risk Index (Eckstein et al. 2021). Approximately 80 percent of the land area is located in the floodplains of three great rivers: the Ganges, the Brahmaputra, and the Meghna. The remaining area consists of hills (12 percent) and terraces (8 percent). Intensive cropping practices, soil and riverbank erosion, and loss of wetlands resulting from flood control, drainage, and irrigation projects are driving land degradation and vulnerability to extreme weather events (USAID 2010). Rising sea levels threaten coastal areas with flooding and salinization, more frequent cyclones cause widespread destruction, and community displacement, and changing precipitation patterns and higher global temperatures disrupt agricultural production in Bangladesh (Ahmed et al. 2023). The GoB's Delta Plan 2100 (BPD 2100) categorizes 58 out of 64 districts in the country to be "extremely vulnerable" to climate change (Raza and Khan 2022). Each of Bangladesh's ecological zones faces unique health challenges associated with their distinct regional geographic, topographic, and climatic differences. Climate change disproportionately affects the rural poor and smallholder farmers, who are the most vulnerable and least able to adapt to its impacts (Ahmed et al. 2021; Fanzo et al. 2018).

Climate change negatively impacts the quality and quantity of water. Freshwater resources are strongly impacted by increased floods, salinity intrusion, groundwater depletion, and droughts, with far-reaching consequences for human health and agricultural production. Diseases linked to water scarcity and quality are one of the leading causes of mortality in Bangladesh. Women exposed to saline water are more likely to experience intrauterine growth restriction, miscarriage, low birth weight in babies, and perinatal mortality. Groundwater depletion is depriving smallholder farmers access to irrigation sources. Salinity intrusion from rising sea levels reduces freshwater resources and increases soil salinity, damaging soil health and reducing crop production, availability of drinking water, and freshwater fish culture (MoEFCC 2022).

Poor WASH infrastructure, post-harvest handling, and food preparation practices result in diarrhea, enteric infections, and poor gut health—all of which contribute to reduced nutrient absorption (USAID 2017). Flooding also displaces households and destroys assets. The impacts are distributed inequitably, with disproportionate effects on the most vulnerable populations including women, children, and communities living in the *haor*, Chattogram Hill Tracts (CHT), and *chars*.

The Delta Plan 2100 proposes ecological zone-specific actions to adapt to the impacts of climate change. Interventions specifically addressing food production include promoting crop diversification, short-duration, and less water intensive crops, and in the case of coastal zones, promoting salt-tolerant and aquatic varieties of rice. Investments in water management infrastructure (e.g., irrigation, drainage, and emergency rice storage) and improved governance (e.g., water rights, maintenance, and operations committees) are also necessary to address climate change-related threats to food security. Other public health and nutrition interventions include: strengthening disease surveillance systems to monitor existing and emerging diseases, improving disease prevention and control programs, improving early warning systems for flooding and droughts, and strengthening drought and flood-mitigation social safety nets. Shock-responsive social programs will become increasingly important to respond to these challenges and their effects on communities and migration.

The agricultural sector is the largest producer of greenhouse gasses (GHG) in the country, contributing 43 percent of all GHG emissions (EDGAR 7.0). Methane is the most-produced GHG by both global-warming potential (GWP)-100 and GWP-20 standards (Ibid.). Bangladesh's Nationally Determined Contributions (NDCs), published in 2021, included for the first time specific goals for decreasing emissions from the agriculture, forestry, and other land use (AFOLA) sector (ClimateWatch). Also, Bangladesh joined the Global Methane Pledge in 2022. Finally, Bangladesh is a member of the Agriculture Innovation Mission for Climate, which seeks to significantly increase investment in and support for climate-smart agriculture and food systems innovation over five years (Ibid.).

Population Density and Spatial Challenges

The country faces serious challenges related to high population density, rapid population growth and urbanization, such as unplanned development, loss of arable land, depleted groundwater, and pollution (Zermoglio et al. 2020). The population of Bangladesh is more than 170 million and with more than 1,000 people per square kilometer (BBS 2022a), it is one of the most densely populated countries in the world. Bangladesh's population is projected to grow more than 50 percent by 2050, with urbanization occurring at a rapid pace (UNFPA 2023). Population growth rate is nevertheless slowing in Bangladesh, decreasing from a peak of 3 percent in 1968 to just over 1 percent today. High population density in Bangladesh places immense pressure on natural resources, infrastructure, and public services. About 55 percent of the urban population live in slums where they experience a wide range of deprivations, including sub-standard, overcrowded, and unhealthy housing and limited access to health,

sanitation water, and waste disposal services (Raza and Khan 2022). Slum dwellers are exposed to contaminated water sources used for bathing, drinking, and food preparation, and an increased risk of vector-borne diseases like malaria and dengue.

Rohingya Refugee Population

Bangladesh hosts close to one million Rohingya refugees from neighboring Burma as part of one of the largest refugee crises in the world. Nearly all (97 percent) Rohingya refugees are moderately or highly vulnerable (REVA 2023). The GoB works with the humanitarian community to provide shelter and basic services to refugees across 33 highly congested and disaster-prone camps. These refugees are primarily situated in Cox's Bazar, which already lagged behind other districts in its food security and nutrition status prior to the influx of refugees in 2017 (WFP 2021).

Without humanitarian assistance, Rohingya refugees are unable to meet their basic needs. Even with assistance, nearly half (44 percent) of all Rohingya face crisis or emergency levels of food insecurity, and only 16 percent of children under two have a minimally acceptable diet. Acute malnutrition is a serious health concern, with prevalence inside the camps exceeding the emergency threshold of 15 percent and chronic malnutrition (stunting) rates at 41 percent. Anemia impacts 24 percent of women and is considered a medium public health concern (Ibid.). With the acute increase in population and density, both refugee and host communities urgently require investments in improved WASH infrastructure and services, social protections, food security, and livelihood opportunities to improve nutrition outcomes.

Shocks and Coping Strategies

Research suggests that households smooth their food consumption after experiencing adverse shocks; in other words, households set aside more resources to maintain the same level of consumption, while foregoing the accumulation of assets that ensure future income (Bakhtiar and Rabbani 2022). Poorer households rely on formal and informal (and potentially costly) channels and exploit existing social networks to insure against adverse shocks. Households experiencing these shocks often take out informal loans, use their social capital to smooth consumption, or change their household food consumption habits. Research by the Feed the Future Innovation Lab for Markets, Risk and Resilience (MRR) shows that informal lending and social networks play a large role in resilience, as well as the importance of building more robust and equitable social safety nets. With the increase in climate-related risks, though particularly those associated with floods and droughts, there is a need for accessible crop and livestock insurance programs to bolster the resilience of more climate-vulnerable rural communities (MRR 2014).

Other avenues for mitigating risks include income diversification and community-based savings groups. Farmers move away from farm to non-farm labor to cope with immediate reductions in their income, often related to disasters like floods and storms (Eskander et al., 2016). Village savings associations and community-based savings groups enable the rural poor to invest savings, take out loans, and start small enterprises. Meteorological data is used in early warning systems to inform farmers when they need to harvest earlier than usual to avoid risking losses from flooding. Appropriate technologies like water catchment systems and adaptive agricultural practices like floating beds are used to combat issues of salinity and flooding (Sengupta and Manik, 2023). Climate-smart agricultural practices are implemented to mitigate increasing risks, such as sandbar cropping in the *charlands*, growing stress tolerant and short duration varieties, and diversified cropping.

Migration is an integral component to households' livelihood strategies. Approximately 10.47 percent of households have members engaged in migrant labor elsewhere in the country or abroad and

that send remittances to support dependents at home. About 500,000 people migrate annually from Bangladesh to work abroad. These migrant workers collectively contribute about seven to 8 percent of Bangladesh's total GDP in the form of remittances (Ahmed, 2018). Research has found remittances to be a key determinant of household food security in Bangladesh (Szabo et al., 2022; Madhav et al., 2015). The recent boom in the RMG industry has generated new income-generating activities for women in Dhaka and its suburbs. Bangladeshi men have historically relied on internal migration from rural to urban areas to pursue economic opportunities, including seasonal wage labor during the agricultural fallow season. Most migrate from villages to Dhaka, while a subset migrates to other large cities like Chittagong (Biswas et al. 2019). Push factors for rural-urban migration include financial or employment problems, concern about children's futures, extreme poverty, political causes, and landlessness. Pull factors include better facilities, positive information, joint families, demographic factors, and higher incomes (Majumder et al. 2023). There is a need to invest in livelihoods and public services in rural areas to slow the pace of urban migration and lower the burden on overextended public infrastructure and services.

Partnership Landscape

Relevant Government of Bangladesh Initiatives

The GoB recognizes these challenges and has articulated its commitment to addressing poverty, hunger, and malnutrition through several strategic plans and policies, including:

- **Commitment to the UN SDGs.** In November 2015, the Prime Minister established the Inter-Ministerial SDG Implementation and Monitoring Committee under the authority of the Principal Secretary in the Prime Minister's Office. In partnership with the international donor community, Bangladesh is committed to advancing the SDGs, many of which are aligned or complementary to the objectives of the GFSS.
- **Commitment to "Promoting Prosperity and Fostering Inclusiveness."** The overarching goal of the GoB's 8th Five Year Plan (8FYP 2020-2025) is to achieve faster, inclusive, and environmentally sustainable growth centering around six broad themes:
    1. rapid recovery from COVID-19 to restore human health, confidence, employment, income and economic activities;
    2. GDP growth acceleration, employment generation, productivity acceleration and rapid poverty reduction.
    3. a broad-based strategy of inclusiveness with a view to empowering every citizen to participate fully and benefit from the development process and helping the poor and vulnerable with social protection- based income transfers;
    4. a sustainable development pathway that is resilient to disaster and climate change, entails sustainable use of natural resources, and successfully manages the inevitable urbanization transition; and
    5. the development and improvement of critical institutions necessary to lead the economy to UMIC status.
    6. Attaining SDG targets and coping with the impacts graduating from the LDC designation (GED 2020).

- **Commitment to implementing the National Food and Nutrition Security Policy (NFNSP).** The goal of the NFNSP is to, "ensure that the country achieves its food and nutrition security-related SDGs and fulfills the relevant national and international commitments by 2030." The five objectives of the NFNSP are to:
    1. ensure availability of safe and nutritious food for healthy diets;
    2. improve access to safe and nutritious food at an affordable price;
    3. enhance the consumption and utilization of healthy and diversified diets for achieving nutrition improvement;
    4. increase access to nutrition-sensitive social protection and safety nets across the lifecycle with a focus on vulnerable groups and regions; and
    5. strengthen cross-sectoral food and nutrition security governance, coordination, capacity building and partnership for effective policy implementation (FPMU, 2021).
- **Commitment to implementing the "Second National Action Plan for Nutrition (2016-2025)" (NPAN2).** The goal of the NPAN2 is to improve the nutritional status of all citizens and reduce all forms of malnutrition, with a focus on children, adolescent girls, pregnant women, and lactating mothers. The five thematic areas of the plan are:
    1. nutrition for all, following a life cycle approach;
    2. agriculture and diet diversification and locally adapted recipes;
    3. social protection;
    4. implementation of integrated and comprehensive SBCC strategy;
    5. monitoring, evaluation, and research; and
    6. capacity building.
- **Joining the Scaling Up Nutrition (SUN) Movement in 2012.** Bangladesh has already made progress on the Strategic Objectives of SUN 3.0, which include:
    1. strengthening and sustaining strong policy and advocacy environments;
    2. developing and aligning shared country priorities for action;
    3. building and strengthening country capacity; and
    4. ensuring SUN governance that promotes country leadership and the responsibilities of government, aligning stakeholders behind country priorities and strengthening mutual accountability.
- **Commitment to the Mujib Climate Prosperity Plan Decade 2030.** The Mujib plan works to counteract climate-induced damage and losses by equipping vulnerable communities, industry, and the government with financing tools and a risk management framework that promotes resilience and stability. The four focus areas of the plan are:
    1. financing through locally led adaptation hubs;
    2. strengthening employment in the green economy;
    3. promoting technological utilization; and
    4. reaching 30 percent reliance on renewable energy through grid resilience and modernization.

- **Commitment to the National Pathway Document for the UN Food Systems Summit in 2021**. Its "Agenda 2030" includes plans for sustainable intensification, diversification, emission reduction, and production resilience in agri-food systems. Improvements to human and social capital, with an emphasis on women and youth, as well as the transformation of both agricultural and non-agricultural livelihoods for sustainable food systems are recognized as key priorities. Lastly, sustainable infrastructure in rural and urban areas, targeted social safety nets, and reductions in food and nutritional losses along the value chain are also listed as key intervention areas to hit targets.

The USG GFSS is aligned with and supports these GoB commitments. The FtF initiative seeks to increase agricultural productivity, improve access to markets, promote sustainable food systems from production to consumption, raise communities' resilience, and strengthen food security and nutrition. Through the FtF and related programming in other sectors, the USG works closely with relevant GoB entities at national, regional, and local levels to pursue these shared objectives. Bangladesh's agriculture, natural resources, and rural development sector is under the mandate of the Ministry of Agriculture; the Ministry of Water Resources; the Ministry of Local Government, Rural Development and Co-operatives; the Ministry of Fisheries and Livestock; and the Ministry of Environment, Forestry, and Climate Change. Other relevant ministries to the FtF initiative include the Ministry of Planning, Ministry of Food, Ministry of Family, Ministry of Health and Family Welfare, and the Ministry of Land.

Development Partners

Numerous multilateral development partners actively invest in and support Bangladesh to achieve similar objectives to FtF in agriculture, food security, and nutrition. The USG coordinates with these donors and the GoB through the Local Consultative Group for Agriculture, Food Security, and Rural Development.

The UN's FAO investments focus on agri-economic growth, safe and nutritious food, climate resilient sustainable development, gender equality, and youth development. The International Fund for Agricultural Development (IFAD) focuses on food security and rural development. The USG and IFAD have a co-financed project focused on promoting sustainable and nutritious food production, increasing entrepreneurship and access to services along value-chains, and modernizing institutions and policies for agricultural transformation. The Australian Center for International Agricultural Research (ACIAR)'s portfolio includes projects on nutrient management, crop improvements, enhancing extension systems, producing hybrid wheat varieties, nutrient management, and mung bean improvements.

The World Bank's $2 billion portfolio in Bangladesh includes projects on food security, agricultural productivity and market access, livestock development, entrepreneurship, CSA, and agriculture sector transformation. The World Bank recently launched a $543 million pay-for-results program with the GoB called, the Program on Agricultural and Rural Transformation for Resilience, Entrepreneurship, and Nutrition (PARTNER), which has three core areas: promoting sustainable nutritious food production, increasing entrepreneurship and access to services along value-chains, and modernizing institutions and policies for agricultural transformation.

Other multilateral development partners include Asian Development Bank (ADB), the European Union (EU), and the Islamic Development Bank (IsDB). Bilateral development partners include the Japanese International Cooperation Agency (JICA), the United Kingdom's Foreign Commonwealth & Development Office (FCDO), Global Affairs Canada (GAC), the German Agency for International Cooperation (GIZ), the Embassy of the Kingdom of Netherlands, China, Korea International Cooperation Agency (KOICA), The Australian Department of Foreign Affairs and Trade (DFAT), Swedish International

Development Cooperation Agency (SIDA), Danish International Development Agency (DANIDA), and the French Development Agency (AFD).

International Organizations

Relevant international and local non-governmental organizations and civil society organizations that are engaged in complementary programming include Action Against Hunger (ACF), Action Aid Bangladesh, Ashroy Foundation, Care International, Catholic Relief Services, Christian Aid, Concern Universal, Concern Worldwide, Dan Church Aid, ESDO, Islamic Relief Worldwide, Muslim Aid, Oxfam, Save the Children, Shushilan, Solidarities International, and World Vision.

National agricultural research institutions (NARI/NARO) generate significant evidence for Feed the Future programming in Bangladesh. These public institutions include Bangabandhu Sheikh Mujibur Rahman Agricultural University (BSMRAU), Bangladesh Agricultural University, Chattogram Veterinary and Animal Sciences University, Hajee Mohammad Danesh Science & Technology University, Patuakhali Science & Technology University (PSTU), Sher-e-Bangla Agricultural University, and Sylhet Agricultural University.

Bangladesh Agricultural Research Council (BARC), the apex body of the National Agricultural Research System (NARS) has significant contribution to research and training in FtF portfolio through its research institutes such as Bangladesh Agricultural Research Institute (BARI), Bangladesh Fisheries Research Institute (BFRI), Bangladesh Institute of Nuclear Agriculture (BINA), Bangladesh Jute Research Institute (BJRI), Bangladesh Livestock Research Institute (BLRI), Bangladesh Rice Research Institute (BRRI), Bangladesh Wheat and Maize Research Institute (BWMRI), and the Soil Resources Development Institute (SRDI).

The One CGIAR—formerly known as the Consultative Group on International Agricultural Research (CGIAR)—has many centers addressing issues in agriculture and food security in Bangladesh. The International Potato Center (CIP)'s research focuses on food security and climate resilience as well as urban and peri-urban agri-food systems. The International Rice Research Institute's (IRRI) work in Bangladesh involves the development and promotion of rice varieties, capacity building of the private sector seed industry, appropriate technologies, biofortification, climate-smart agronomy, and a focus on the Charlands. The International Maize and Wheat Improvement Center's (CIMMYT) research focuses on IPM, climate adaptation, mechanization, and sustainable intensification. The International Food Policy Research Institute (IFPRI) focuses on digital financial services adoption among SMEs in agricultural value chains. WorldFish is working to substantially boost fish production with innovations such as community-based fisheries management, sustainable feeds, and low carbon production systems. The International Livestock Research Institute (ILRI) is conducting research on microbial contamination and antibiotic resistance in marketed food in Bangladesh.

Other Relevant USG Initiatives

U.S. Department of Agriculture (USDA) Initiatives

USDA promotes agricultural trade policy and reports on Bangladesh's production, supply, and distribution of key agricultural commodities. In addition, USDA currently has two Food for Progress projects and operates a McGovern-Dole International Food for Education and Child Nutrition Program (McGovern-Dole) project in Bangladesh. The Food for Progress Program helps developing countries and emerging democracies modernize and strengthen their agricultural sectors. U.S. agricultural commodities donated to recipient countries are sold on the local or regional markets and the proceeds are used to support agricultural or economic development programs. Food for Progress has two

principal objectives: to improve agricultural productivity and to expand trade of agricultural products. The key objectives of the McGovern-Dole program are to reduce hunger and improve literacy and primary education, especially for girls. By providing school meals, teacher training, and related support, McGovern-Dole projects help boost school enrollment and academic performance.

The Food for Progress, Bangladesh Trade Facilitation project is a five-year project that started in 2020. The goal of the project is to simplify, modernize, and harmonize processes for the export, import, and transit of agricultural goods through support to Bangladesh in implementing the World Trade Organization (WTO) Trade Facilitation Agreement (TFA).

In 2023, USDA announced a new five-year Food for Progress project on Climate Smart Livestock. The first goal of the project is to increase the productivity of livestock by improving animal health and adoption of new production technologies, while reducing greenhouse gas emissions and conserving land resources. The second goal is to improve and increase the trade of livestock by linking producers to end buyers, while facilitating increased access to investment capital.

USDA has continuously had an active McGovern-Dole project in Bangladesh since 2006. The current four-year project, which started in 2020, is operating in two sub-districts in Cox's Bazar. The project is working in 170 schools with over 49,000 students benefiting. The project aligns with the GoB's national school feeding program. It aims to increase student enrollment, improve literacy and the quality of education, improve health and dietary practices of students, increase awareness of the importance of education by parents, and increase the government ownership of the programming through capacity building activities.

USDA's Foreign Agricultural Service is continuing its support to the Government of Bangladesh on sanitary and phytosanitary (SPS) capacity building through 2027 in partnership with USAID through the Food Safety for Food Security Program. For more than a decade this work has included direct support to the Ministry of Agriculture and other relevant ministries, for technical training on science and risk-based policy and regulatory measures for animal and plant health and food safety to strengthen Bangladesh's risk-management systems to combat harmful pest and disease outbreaks while improving opportunities for increased agricultural trade with the United States and other countries.

USAID Centrally Funded Initiatives

Research and extension activities carried out by national institutions is reinforced by the research-for-development portfolio of FtF innovation labs that are active in Bangladesh and the South Asia region, including:

- Feed the Future Innovation Lab for Integrated Pest Management
- Feed the Future Innovation Lab for Aquaculture and Fisheries
- Feed the Future Innovation Lab for Horticulture
- Feed the Future Innovation Lab for Sustainable Intensification
    - Digital Tools, Geospatial and Farming Systems Consortium
    - Appropriate Scale Mechanization Consortium
    - International Fertilizer Development Center (IFDC) SOILS Consortium

B. Geographic Targeting

Map of Zone of Influence

Since the launch of the FtF Bangladesh program in 2010, GFSS investments have focused on 21 districts in southwest Bangladesh due to the region's elevated levels of poverty, vulnerability to climate change, and potential for agriculture-led growth. In 2018, two districts in southeastern Bangladesh—Cox's Bazar and Bandarban—were added in response to the Rohingya refugee crisis. Over the past decade, the Bangladesh FtF program has made remarkable progress in terms of developing nutrition-sensitive value chains related to dairy and fish production, equipping millions of farmers with new skills and knowledge, strengthening women's empowerment, and partnering with the private sector to expand access to high-quality agricultural inputs and services (FtF 2020). The 2023-2028 GFSS Country Plan has been designed to allow the Feed the Future program to continue to build on these robust successes and partnerships, while reducing the program's focus on higher-performing districts to add new districts in parts of the country previously not covered by the program.

Map 1: 2023-2028 Bangladesh ZOI

The FtF Bangladesh program will focus investments in 16 districts across three divisions, constituting two contiguous areas and covering a population of 32,429,381 people, approximately 19 percent of the population (BBS 2022b). These 16 districts will constitute the Feed the Future Bangladesh "Zone of Influence," the area in which the USG will concentrate its Feed the Future resources. The new Zone of Influence (ZOI) retains 12 districts in southwestern Bangladesh in the divisions of Barishal and Khulna and adds four districts in the division of Sylhet. To intensify investments and include the four new districts in Sylhet, the 2023-2028 ZOI calls for gradually phasing out of 9 districts in southeastern Bangladesh based on their improved capacity, nutritional outcomes, and access to improved infrastructure, such as the Padma bridge, which opened in 2022 and will provide a significant boost to the gross domestic product of southwestern Bangladesh. With increased donor attention to the needs of host communities in southeast Bangladesh, GFSS investments will also gradually phase out of Cox's Bazar and Bandarban as other USG investments in the region ramp up. Map 1 and Table 2 below reflect the districts included in the revised ZOI.

Table 2: 2024-2028 ZOI Divisions, Districts, and Populations (BBS 2022b)

Division	District	Population
Sylhet	Sunamganj	2,695,495
	Sylhet	3,857,037
	Maulvibazar	2,123,445
	Habiganj	2,358,886
Barishal	Barguna	1,010,530
	Barisal	2,570,450
	Bhola	1,932,514
	Jhalokati	661,161
	Patuakhali	1,727,254
	Pirojpur	1,198,193
Khulna	Bagerhat	1,613,079
	Jashore	3,076,849
	Jhenaidah	2,005,849
	Khulna	2,613,385
	Narail	788,673
	Satkhira	2,196,581
TOTAL	**16 districts**	**32,429,381 people**

Process of Determining the Revised ZOI

USAID/Bangladesh considered a range of factors in determining the 2023-2028 ZOI. These factors included:

- the levels of poverty, hunger, and malnutrition;
- the opportunity for sustainable, agriculture-led economic growth;
- the empowerment of women and youth;
- the vulnerability of districts to the agroecological effects of climate change;
- opportunities to advance USAID's localization vision and approach;
- the geographic footprint and cost per beneficiary; and
- the existence of past, current, and future USG, GoB, and other donor investments (both to capitalize on opportunities to integrate, fill gaps in the donor landscape, and sequence complementary interventions to avoid programming redundancy).

To assess these factors, the GFSS team used a mix of primary and secondary data sources. Primary data sources included three stakeholder workshops held throughout the country with representatives from local governments, research institutions, farming communities, the USG interagency, and the private sector in attendance. The results of these workshops—along with a list of attendees—are summarized in annex F. The GFSS team also conducted a series of key informant

interviews with selected host country government stakeholders. Secondary data sources included a desk review of the country context and relevant agronomic and health data.

Optimizing the FtF Program's Geographic Footprint and Cost Per Beneficiary

The 2023-2028 ZOI has a population of 32,429,381, which represents a 12.5 percent decrease from the 2018-2023 ZOI's population of approximately 37,056,459, including the districts of Bandarban and Cox's Bazar (BBS 2022b). The purpose of decreasing the population covered by GFSS programming is to intensify the level of GFSS resources going to the districts of the country that are both vulnerable in terms of susceptibility to climate change, malnutrition rates, and poverty levels, while also having a high potential for agriculture-led growth. By reducing the number of districts covered under the ZOI from 23 to 16, the USG will be able to increase the resources per beneficiary and deepen the impact of FtF programs and achieve measurable progress over the next five years.

To make a measurable impact on the livelihoods and well-being of 32.4 million people living in the new ZOI, the USG will continue to employ facilitative and market-systems-based approaches. Facilitative and market-systems-based approaches—especially when complementary to host country programming—are recognized globally as proven approaches to achieve sustainable impact at scale. Such approaches are especially impactful in Bangladesh due to the country's high population density, which contributes to lower operational costs and means that even small interventions impact a large number of people. Using these types of approaches, the FtF Bangladesh program achieved significant results during the period 2011-2019. According to the 2018/2019 FtF ZOI Endline Survey, in the previous ZOI poverty declined by 15.4 percent and rice yields increased by 14.7 percent. The percentage of women empowered also witnesses a significant increase from 30.5 percent in 2011/2012 to 68.7 percent in 2018/2019 (FtF 2020).

ZOI Southwest: Barishal Division and Select Districts of Khulna

The Bangladesh FtF program will continue to build on the rich legacy of GFSS programming in six districts of Khulna division and six districts in Barishal division. The USG's investments in Barishal and Khulna divisions date back to the launch of the FtF program in 2010. Since then, the FtF program has achieved successes in strengthening and diversifying the region's agricultural market systems and value chains. There remains, however, significant opportunity for further agriculture-led economic growth, particularly in the development of the aquaculture, horticulture, and livestock value chains. In Barishal and Khulna rice remains the overwhelmingly dominant cropping pattern (BBS 2021). One reason for this is the high levels of price volatility that non-rice crops experience, which poses a significant risk for smallholder farmers, and disincentivizes investments in crop diversification (FtF 2020).

Barishal continues to be one of the most vulnerable divisions in the country in terms of its poverty rate, nutritional indicators, and underdeveloped agricultural sector. The 2022 Household and Income and Expenditure Survey conducted by the Bangladesh Bureau of statistics found Barishal division to have the highest overall rate of poverty (26.9%) in the country (BBS via TBP). Districts in Barishal have low rates of irrigated land, low yields rates, and low cropping intensity (BBS 2022). Barishal also has poor nutritional outcomes in terms of stunting and wasting for children under five years of age (UNICEF 2019), as well as lower dietary diversity (NIPORT 2022).

Map 2: 2023-2028 Bangladesh ZOI Southwest

Despite years of FtF programming, recent global crises and climate change threaten the durability of FtF successes in the region. Despite the FtF program's impact in southwestern Bangladesh over the past decade, much of the development progress achieved has been eroded due to the economic impacts of COVID-19 and the global food, fuel, and fertilizer price shocks stemming from Russia's war in Ukraine. As a result, the prevalence of poverty in the 2018-2023 ZOI, which includes all 16 districts in Barishal and Khulna, increased from 10.4 percent in 2018/19 to 19.4 percent in 2022 in Khulna division and 26.5 percent in 2016 to 26.9 percent in 2022 in Barishal division (FtF Bangladesh 2023). The increased prevalence of poverty in the wake of Covid-19 and the war in Ukraine highlights the fragility of development gains in Bangladesh and underscores the need for ongoing FtF programming to build resilience in food, market, and environmental systems.

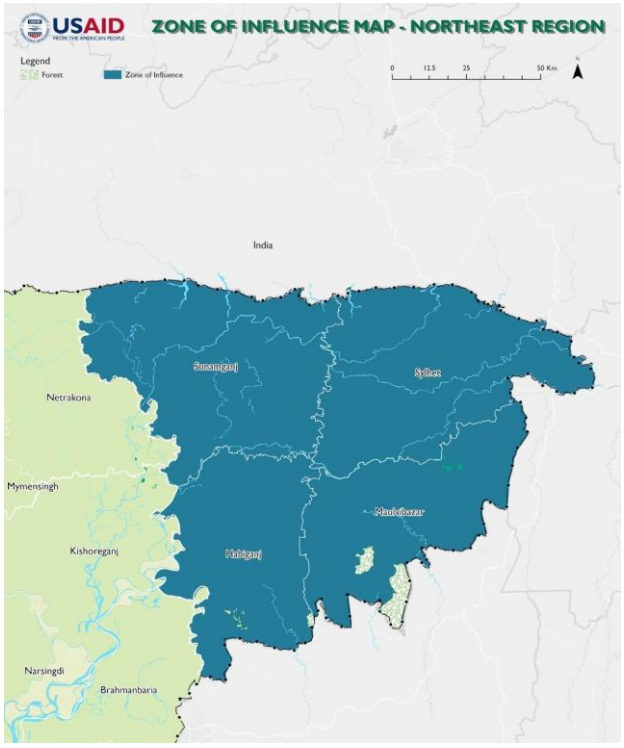
Districts in Khulna and Barishal—especially those adjacent to the Bay of Bengal—are highly vulnerable to the impacts of climate change and have a high frequency of natural hazards (World Bank 2022). Districts in this area of the country are primarily made up of saline and non-saline tidal marsh ecosystems, and are exposed to riverbank erosion, cyclones, and storm surges. The districts of Khulna, Bagerhat, and Satkhira are the worst hit by increasing soil and water salinity (SRDI 2010). The compounding effects of climate change and natural hazards "pose a barrier to the lowering of poverty rates, undoing development progress and lowering the resilience of communities" (World Bank 2022). The FtF program has served as a bulwark against these development headwinds, and continuity of GFSS investments will be critical for stimulating economic growth and bolstering the resilience of households to future shocks and stresses.

ZOI Northeast: Sylhet Division

The FtF Bangladesh program's ongoing food security programming in the southwest will be complemented by new investments in the division of Sylhet. Districts in Sylhet division are vulnerable due to their unique topography, underdeveloped agricultural sector, and low nutritional outcomes.

Sylhet has six agro-ecological zones, giving it a high potential for varied agricultural activities (BBS 2022). A distinguishing geographic feature of Sylhet division is its unique topography. The topography of Sylhet division is characterized by large geographic depressions called *haors* that become flooded for approximately four months annually during the monsoon season, transforming the region into a wetland ecosystem. Climate change, as well as the degradation of the *haor* ecosystem, make the region particularly susceptible to flash floods (Montu 2022). In May 2022, for example, Sunamganj and Sylhet districts experienced one of the worst flash floods in years, leaving millions of people homeless and without any belongings (Reliefweb 2022). The presence of the *haor* also exacerbates the impact of climate change in the region. Changing rainfall patterns mean flooding during the monsoon season, and drought during other parts of the year.

The agricultural sectors in the districts of Sylhet division are significantly underdeveloped. For example, crop diversification and cropping intensity in Sunamganj and Sylhet districts are among the lowest in the country (BBS 2021). Rice production constitutes 97 percent of the gross cropped area in Sunamganj and 93 percent in Sylhet district (BBS 2021). Only a third of Sylhet's gross cropped area is irrigated, the lowest in the country apart from Barishal (BBS 2021). Agricultural yields in Sylhet are among the lowest in the country. Yields for fish and rice in Sylhet—the primary agricultural industries in the division—are the lowest in the country, while yields for other crops like wheat, corn, and fruits and vegetables also rank low (BBS 2021). Low agricultural productivity and limited crop diversity in Sylhet, Habiganj, Moulvibazar, and Sunamganj districts contribute to unfavorable nutritional outcomes. Sylhet Division exhibits the nation's poorest nutritional status among children under five, recording the highest rates of stunting (33.9 percent), wasting (12.2 percent), and underweight (31.7 percent) according to the 2022 Bangladesh Demographic and Health Survey.

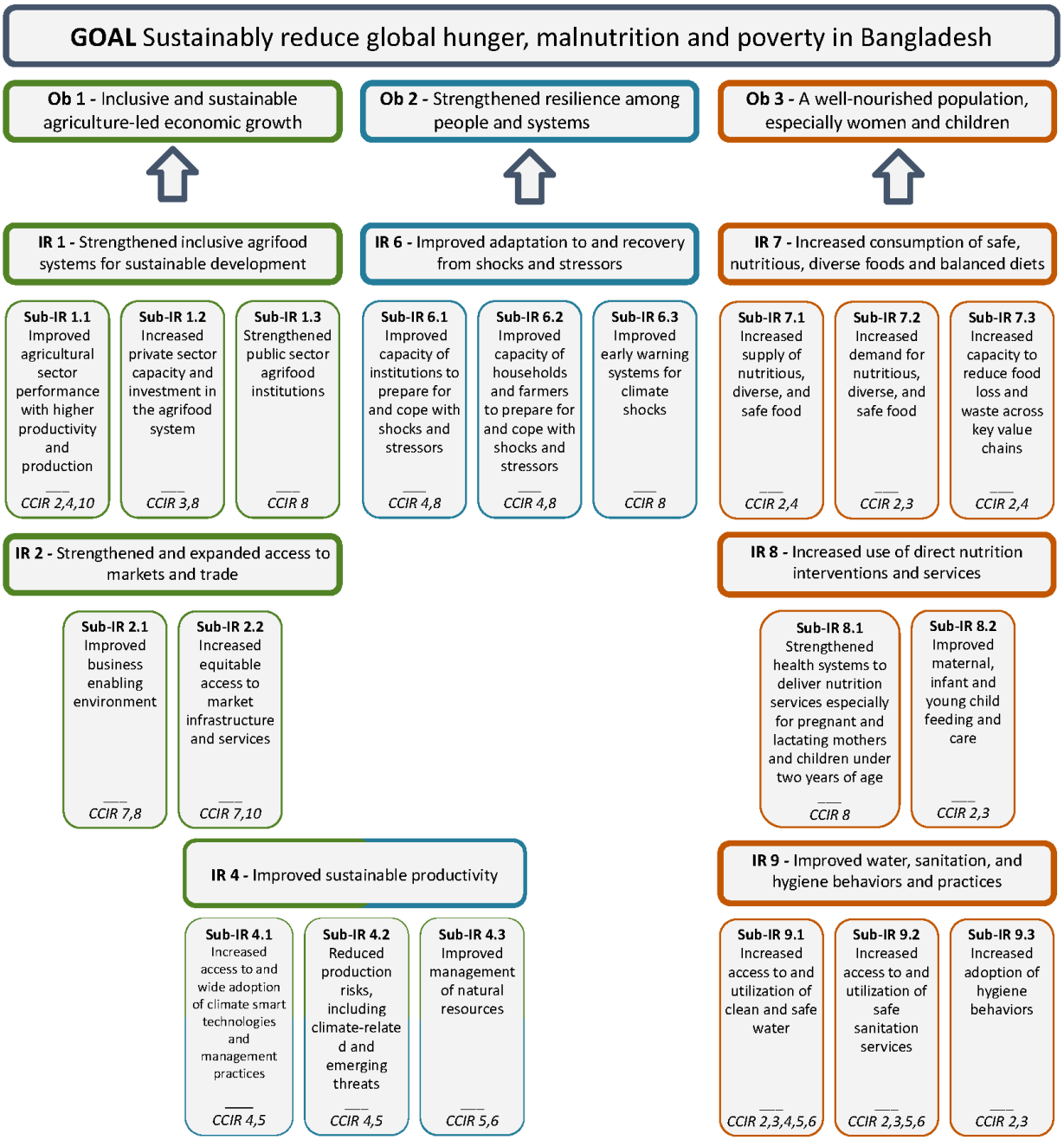


Map 3: 2023-2028 Bangladesh ZOI Northeast

In Sylhet division, the lack of private and donor investments indicates a potentially large marginal benefit from FtF investments in the region. The agricultural value chains in these districts are constrained by limited involvement of private agri-businesses at all scales. The result is an overreliance on public institutions and limited private investment. During a field visit to the region, USAID discovered through a series of key informant interviews that one of the major constraints to the region's aquaculture industry, for example, is the lack of private fish hatcheries, which inhibits the availability of quality fingerlings, and therefore the potential of Sylhet's aquaculture sector. Similar trends exist within the agricultural and livestock sectors. There are also few international donors operating in Sylhet, and USAID's humanitarian programming in the region is winding down. The Bangladesh FtF program has a strategic opportunity to fill these gaps, while building on USAID's previous accomplishments in the region.

C. Results Framework

Results Framework Figure



Results Framework Summary

Overview

The 2023-2028 Bangladesh GFSS Country Plan Results framework charts a course for building on the last decade of FtF programming in Bangladesh, while addressing the emerging global exigencies. The framework is also responsive to the challenges posed by the revised ZOI.

Between 2011 and 2018, FtF programming contributed to significant reductions in poverty, moderate and severe hunger, stunting, and wasting (IFPRI 2023). The FtF Bangladesh program was able to achieve these successes through robust investments in projects supporting sustainable agriculture-led economic growth and partnering with the private sector to achieve impact at scale, while at the same time strengthening the overall food system through investments in health, education, and awareness.

Despite the success of the FtF Bangladesh program, protracted challenges remain, especially in parts of the country not previously covered by the FtF program. As noted above, there remain deep pockets of poverty and food insecurity in parts of the ZOI. 65 percent of the ZOI does not consume a minimally acceptable diet, and 27 percent of children under five years have stunted growth, a number that is even higher in the districts of Sylhet added to this iteration of the ZOI. With only 4 percent of rural households using treated drinking water and fewer than half of households having access to improved sanitation and hygiene products and facilities, water, sanitation, and hygiene is an emerging crisis. Moreover, the climate crisis and Russia's war in Ukraine threaten to erode the development gains of the past decade.

To advance the 2023-2029 GFSS in the context of these challenges, USG will maintain its core programming under Strategic Objective (SO) 1 that support increased agricultural productivity and profitability, while expanding interventions that strengthen farmer capacity to adapt to the effects of climate change. Under SO2, USG will strengthen its focus on resilience to address nutrition and climate change challenges. USG also intends to shift more resources to advance SO3 considering Bangladesh's low dietary diversity, high stunting rates, and lack of access to clean drinking water. Greater emphasis on SO3 also aligns with Bangladesh's status as a USAID Nutrition Priority Country. This approach is complementary to U.S. Embassy Dhaka's Integrated Country Strategy and USAID/Bangladesh's Country Development Cooperation Strategy.

Strategic Objective 1: Inclusive and Sustainable Agriculture-led Economic Growth

Under SO1, the USG will address GFSS intermediate results (IRs) 1, 2, and 4. USG programming will focus on enhancing farmers' productivity and profitability while simultaneously advancing environmentally sustainable agri-food and farming systems (sub-IR 1.1) to reduce poverty and food insecurity in the ZOI. USG efforts under IR 4 will also strengthen resilience by advancing climate smart agriculture (sub-IRS 4.1 and 4.2) and improving management of natural resources, especially sustainable access to water for both drinking and irrigation purposes (sub-IR 4.3). Interventions under SO1 will strengthen private sector capacity to meet market needs and leverage private sector investment in the agrifood system (sub-IR 1.2). USG will continue efforts to improve the business enabling environment, while facilitating trade and expanding export opportunities for smallholder farmers as a means of integrating them into national supply chains, increasing their profitability, and enhancing the safety and quality of production (sub-IRs 2.1 and 2.2). At the policy level, USG will advocate strategic policy reforms to remove market barriers and strengthen animal and plant health and food safety (sub-IR 1.3). USG programming will make special efforts to expand opportunities for vulnerable and marginalized communities, especially youth, women, girls, and ethnic and religious minorities. While USG investments

may indirectly contribute to increased employment and entrepreneurship (IR 3), this will not be a specific focus of USG programming as there are other USG investments working in these areas.

Strategic Objective 2: Strengthened Resilience Among People and Systems

The focus of SO2 will be helping the more-than-half of Bangladeshis that live in high-climate exposure areas. USG's approach to achieving SO2 hinges on IRs 4 and 6. To advance IRs 4 and 6 USG will equip smallholder farmers and agribusinesses with improved knowledge of and access to climate-smart agricultural techniques (sub-IRs 4.1 and 4.2). Through increased adoption of climate-smart agricultural techniques paired with increased access to finance, farmers and agribusinesses will be better prepared to recover from climate disasters (sub-IRs 4.1, 4.2, and 6.2). USG investments will also strengthen rural food systems and resilience through enhanced management of natural resources, especially those related to water (sub-IR 4.3). Given the outsize impact of natural disasters on resilience, where appropriate, USG will also invest in improving early warning systems and disaster preparedness (sub-IR 6.3). USG will not invest FtF resources to proactively reduce, mitigate, and manage risks (IR 5) as there are other USG efforts and international donors focusing on this topic.

Strategic Objective 3: A Well-Nourished Population Especially Among Women and Children

Under SO3, USG will invest in IRs 7 and 9 to address nutrition outcomes and WASH, especially access to clean drinking water. A key issue in Bangladesh is lack of dietary diversity, especially among women and girls. Rice accounts for more than 70 percent of the calories consumed. To address this, USG will work on both the demand and supply sides of the market for nutritious foods (sub-IRs 7.1 and 7.2). On the supply side, USG will strengthen nutrition-sensitive value chains, such as livestock, dairy, and aquaculture, to increase the supply of nutritious foods. On the demand side, USG will build awareness and demand for nutritious, diverse, and safe food using social behavior change communication (SBCC), with a special focus on pregnant and lactating women, children under-five, and adolescents (sub-IR 7.2). To achieve IR 9, USG will partner with companies to improve access to clean water and expand access to WASH products in rural communities and schools (sub-IRs 9.1, 9.2, and 9.3), while simultaneously increasing the agency of women and adolescent girls. USG will not invest FtF resources in expanding access and use of direct nutrition interventions (IR 8) as USAID's Office of Population, Health, and Nutrition is addressing this IR.

D. Program Components

Increasing Agriculture System Resilience and Productivity

IRs (Sub-IRs): 1(1-3), 2(1-2), 4(1-3), 7(3) | Cross-Cutting IRs 2, 4, 5, 8, 10

The FtF initiative has achieved significant progress in reducing poverty and food insecurity in Bangladesh. From 2011 to 2018, poverty within the 2018 ZOI dropped by 38 percent, moderate and severe hunger by 68 percent, child stunting by 32 percent, and child wasting by 45 percent. However, internal and external stressors threaten to upend the country's past 50 years of hard-won development gains. Bangladesh is ranked the seventh most vulnerable country to the impacts of climate change, and climate shocks increasingly upend livelihoods and strain its health and governance systems. Rising sea levels and salinization are displacing coastal communities, threatening to reduce the country's cultivable land area by 20 percent by 2050, causing a significant loss in agricultural GDP, and displacing 15 to 30 million people. At the same time, Bangladesh's economy is under strain as Russia's war on Ukraine has triggered a spike in commodity and raw materials prices resulting in high inflation, ballooning debt, and shortages in foreign currency reserves. This economic hardship comes as Bangladesh prepares to graduate from its status as a Least Developed to a Lower Middle-Income Country by 2026 and will no longer be eligible for concessional multilateral assistance. Democratic and civic space is also shrinking as

Prime Minister Sheik Hasina was reelected to a controversial fourth term in January 2024. In the face of these imminent threats, Bangladesh must feed a large and growing population, and its agriculture systems must therefore be resilient and productive to cope with these shocks and stressors and must integrate and deploy more sustainable agricultural practices.

To prevent backsliding on key development gains, rural communities and individuals in Bangladesh must become more resilient to shocks and stresses. Resilience is the ability to adapt to change by maintaining or transforming living standards in the face of shocks and stresses. The USG will strengthen the adaptive capacity of vulnerable populations by expanding their access to vital resources during times of crisis. The USG will support the transfer of knowledge, for example, skills training to increase income-generating activities, training on digital business tools or climate-smart technologies and practices, or building managerial capacity within local government institutions. The USG will place a special focus on food safety and WASH in disaster-prone regions and among women and youth. Additionally, the USG will enhance access to finance, sustainable production technologies, and quality rural infrastructure. Using local partners will be key to strengthening resilience. USG activities will empower beneficiary communities to shape their own vision for success to achieve sustained development results. When engaging with local partners, the USG will ensure that diverse local perspectives are integrated into activity planning and implementation, paying special attention to elevating the voices of marginalized and vulnerable populations.

The USG's GFSS investments will enhance agricultural productivity and resilience through an inclusive market systems approach. A market system is a set of interconnected value chains where private and public entities coordinate and compete to create, distribute, and consume goods and services. There are many transactional links between farm and table within a food value chain. Efficiency in market system linkages hinges on access to quality inputs and information for producers, and equitable power-sharing among market actors. The USG will foster competitive, inclusive, and resilient market systems by strengthening linkages between farmers, input dealers, trader associations, parts suppliers, and financing institutions while expanding the reach of extension agents and business development services. The USG will continue to support seed systems innovation in the rice, potato, and eggplant value-chains by improving breeding and marketing capacity of public and private seed companies through training programs and technology grants. All USG market system activities will explicitly prioritize removing barriers for vulnerable and marginalized groups in Bangladesh, including women, ethnic and religious minorities, LGBTQI+ individuals, and youth. These groups represent a substantial entrepreneurial force who produce and consume, manage businesses and households, earn income, hire labor, borrow, and save, and provide a range of services for businesses and workers. The USG will direct resources to reach these groups through tailored training, grants, and business support services.

Improving Rural Livelihood Opportunities, Business Enabling Environment, and Access to Finance

IRs (Sub-IRs): 1(2-3), 2(1), 6(2) | Cross-Cutting IRs 7, 8, 10

The Bangladesh economy has achieved an impressive annual growth rate of 6.44 percent over the past decade, with the agriculture sector contributing 11 percent towards national GDP. About half of all workers, and two-thirds in rural areas, are directly engaged in agriculture. Additionally, around 87 percent of rural households partially rely on agriculture for income. Their livelihoods are at risk, however, due to the looming challenge of climate change and economic and political crises. The USG will help rural and marginalized communities improve their livelihoods by empowering them with new skills

to expand production capacities and navigate a changing labor market. The USG will promote a shift in production from rice to higher-value crops, which can significantly decrease malnutrition, accelerate income growth, and generate improved on-farm and off-farm employment opportunities, especially for women and youth. USG investments will continue to support agri-entrepreneurs and agro-processors, especially in high-value sectors such as the livestock sector. In coastal communities vulnerable to climate-induced sea-level rise and soil salinization, the USG will provide support through alternative employment training. The USG will also strengthen the capacity of entrepreneurs in coastal regions to manage natural resources sustainably, particularly in sectors that rely on fragile ecosystems, such as fisheries. Across all USG employment and livelihoods programs, activities will address the systemic barriers that prevent women from participating in and benefiting from food systems.

Expanding access to finance is critical to fostering a more dynamic and competitive agricultural sector in which individuals can enhance and diversify their livelihoods. Access to finance is key to helping smallholder and agribusinesses expand their enterprises, but also to strengthening their resilience to shocks and stressors. Access to finance remains a challenge in Bangladesh's agriculture due to banks' reluctance to lend to riskier sectors, a suboptimal policy framework that does not incentivize finance providers to sustainably lend to the agricultural sector, and a lack of collateral and borrower capacity. Marginalized and vulnerable groups, especially women and youth, are also systematically excluded from the formal financial system. The USG aims to bridge a $2 to 7 billion financing gap for agri-SMEs and smallholder farmers by providing technical assistance to both finance seekers and providers, piloting incentive programs with innovative financial products, and linking SMEs to advisory services. These efforts will generate a sustained increase in access to finance for Bangladeshi agriculture enterprises and smallholder farmers.

Numerous barriers in the regulatory environment in Bangladesh hinder private sector efficiency and growth. Agri-businesses face challenges such as contract enforcement, property registration, insolvency resolution, accessing financing, cross-border trade, and tax compliance. The USG will increase the ease of doing business in Bangladesh by collaborating with government institutions to strengthen legal and procedural frameworks and expanding access to finance for smallholder farmers and SMEs. The USG will drive policy reform by facilitating inclusive policy dialogues between government, the private sector, academia, and civil society stakeholders, with emphasis on ensuring that the voices of marginalized and vulnerable populations are part of the process. While USG activities will address a wide range of agriculture-related policy issues, it will prioritize two policy issues poised to catalyze transformational growth in agriculture market systems: trade facilitation and seed system reform. In terms of trade facilitation, the USG will continue to support implementation of the World Trade Organization Trade Facilitation Agreement and Sanitary and Phytosanitary Agreement. On seed system reform, the USG will collaborate with relevant government ministries to reform seed sector policies to foster a policy environment more conducive to private sector investment and innovation. USG support will also address fertilizer utilization at the policy and farmer level. At the policy level, USG will explore options tying fertilizer subsidies to sustainable land management and climate resilient practices. At the farmer level, USG support will equip farmers with the knowledge and technology required to use fertilizer optimally. USG will also explore the possibility of using the modeling approach employed by the Vision for Adapted Crops and Soils (VACS), launched by the U.S. Department of State in 2023, to determine which crops would benefit from future investments based on climate adaptation, soil suitability and nutritional value.

Expanding Access to and Use of Nutritious and Safe Foods

IRs (Sub-IRs): 1(1-3), 7(1-2), 9(1-3) | Cross-Cutting IRs 3, 7, 8

Rice accounts for the greatest share of caloric intake and 35 percent of the average Bangladeshi household's food expenses. While some individuals have diversified their diets from starchy staples, overall demand for varied products remains low due to a lack of purchasing power, strong preferences for rice and starches, and limited availability of diverse foods in local markets. Poor nutrition is exacerbated when foodborne illnesses enter food value chains through unsafe handling, preparation, and storage of food. The USG will enhance access to and use of safe and nutritious foods by increasing both the demand and supply of nutritious foods, while simultaneously strengthening sanitation and hygiene practices and advocating for food safety policy reform.

The USG will increase the availability of nutritious foods by empowering and connecting private sector actors to provide nutrition-sensitive inputs in communities with limited access. Activities will support entrepreneurs and market vendors in offering diverse products while enhancing their marketing skills through technical training. The USG will also partner with public sector extension services to stimulate safe, diversified farm-level production. Additionally, USG will invest in strengthening nutrition-sensitive value chains and crops, such as livestock, pulses, aquaculture, dairy, and fruits and vegetables. On the demand side, the USG will deploy innovative social behavior change campaigns to nudge consumers at the point of production and purchase. USG-supported projects will mobilize change agents like social media influencers, religious leaders, and school-based adolescent groups to catalyze improvements in dietary diversity and healthy eating habits. USG activities will partner with private national and international food and agriculture companies to tailor products to women, especially lactating mothers and adolescents while expanding their role as decision makers.

Foodborne illnesses often enter the value chain through local markets or households. At both levels, lack of quality infrastructure accelerates food spoilage and illness, while is further exacerbated by inadequate hygiene and unsafe food handling. The USG will support communities in improving food safety and nutrition with improved facilities, including latrines, handwashing stations, rural roads, and market centers, among others. The USG will also support innovative approaches to social behavior change (SBC) through locally led WASH and food safety campaigns that empower communities to achieve their health and economic goals. Youth leaders will play a key role as behavior change agents in driving improved food safety and hygiene.

Strengthening sanitary and phytosanitary (SPS) policy and regulations to increase agricultural exports is a priority for the Bangladesh government. The USG will support key agencies like the Bangladesh Food Safety Authority and the Bangladesh Standards and Testing Institution to enhance sanitary and phytosanitary capacity through training, technical advisory services, and facilities improvements. These activities will strengthen the rigor and efficiency of border inspections, research, monitoring, laboratory management, and response management for pest and disease outbreaks across the country. Strengthened SPS compliance will expand the trade economy, supplying jobs and income for producers and SMEs. The USG will also support analyses of current food security policies, leveraging its convening power to build government-wide consensus and providing technical expertise to establish robust regulatory systems.

Generating Opportunities for Women and Youth

IRs (Sub-IRs) 7(1), 8(1), 9(3) | Cross-Cutting IRs 2, 3, 9

Despite significant progress on socio-economic indicators over the past two decades, women in Bangladesh continue to face numerous inequities. Significant gaps remain in terms of women's access to

higher education, formal employment, business ownership or management roles, access to land and non-land assets, early marriage, and reproductive autonomy. Climate change disasters and other shocks exacerbate gender disparities by disproportionately increasing female labor burdens and gender-based violence, while reducing access to social safety nets. The USG will address gender disparities by enhancing the resilience of women and girls to shocks by increasing their production capacity, diversifying their technical skills for increased climate-resilient economic opportunities, and by improving their decision-making power and access to finance and other resources. USG-supported projects will partner with the private sector to develop the technical and managerial skills of women while demonstrating the economic benefits of inclusivity.

Investing in youth yields powerful development outcomes, accelerates economic growth, and strengthens democracy and stability. Skills development and increased employment opportunities are crucial for youth, who have technological, numeracy, and connectivity skills that make them highly competitive in various job markets. The USG will deliberately design activities that prioritize youth inclusion in skills training and job market opportunities, especially for youth facing discrimination based on their identity. Moreover, USG investments will leverage the leadership potential of youth, engaging them in social behavior change campaigns in schools and communities that equip youth with knowledge regarding nutrition, hygiene, and combating early and child marriage and empowering them to become change agents in their communities.

Improving Water Security, Sanitation, and Hygiene

IRs (Sub-IRs): 6(1-2), 7(1-2), 8(2), 9(1-3) | Cross-Cutting IRs 2, 3, 6, 8

Access to water and sanitation and proper hygiene is essential for advancing global health, gender equality, prosperity, stability, and resilience. Yet only 43 percent of Bangladeshis have access to safely managed drinking water due to inadequate infrastructure and high contamination by salt, heavy metals, agrochemicals, and industrial waste. Slow uptake of improved hygiene practices in Bangladesh directly contributes to disease and undernutrition, undermining both health and economic outcomes. Moreover, lack of access to menstrual hygiene products and societal stigma around menstruation hinder women and adolescent girls from practicing proper menstrual hygiene. To address these challenges, the USG will increase access, use, and maintenance of improved WASH products, practices, and facilities by strengthening WASH-related supply chains, infrastructure, and consumer behaviors.

USG-supported projects will partner with local government and public and private sector service providers to expand access to safe, affordable, reliable, and climate-resilient water services and products. It will facilitate public-private partnerships in the WASH sector to improve WASH infrastructure, complementing these investments with initiatives to build institutional capacity and improve governance.

The USG will support SBC approaches to improve household-level sanitation and hygiene practices. SBC campaigns will address WASH topics like handwashing, food hygiene, environmental hygiene, and menstrual hygiene. Inadequate or insufficient menstrual hygiene reflects gender-based discrimination that results in vulnerability, poverty, and inequality in resource control and access to information and basic services for women. A multi-sectoral SBC approach will reshape societal norms that perpetuate gender- or age-based disparities that influence poor WASH behaviors and outcomes.

E. Stakeholder Engagement

USG will coordinate implementation of the Bangladesh GFSS Country Plan through the platforms outlined below:

- **Local Consultative Group (LCG) for Agriculture, Food Security, and Rural Development**: Donor coordination in Bangladesh is facilitated through LCGs, which are thematic working groups comprised of representatives from the GoB, the international donor community, and other relevant stakeholders. USAID and USDA are active participants in the LCG for Agriculture, Food Security, and Rural Development, which is co-chaired by representatives from the United Nations Food and Agriculture Organization (FAO) and the GoB. The LCG for Agriculture, Food Security, and Rural Development meets quarterly, and will be the primary forum where progress toward achieving the objectives of the GFSS Country Plan will be shared, and where the USG will identify opportunities to coordinate more effectively with international partners and advance the GoB's agricultural development agenda.
- **USAID-GoB Steering Committee for the USAID Feed the Future Bangladesh Climate Smart Agriculture Project**: In April 2023, USAID launched the $35 million Feed the Future Bangladesh Climate Smart Agriculture Project (CSA) with the International Fertilizer Development Center (IFDC) to support the GoB in achieving its ambitious climate-smart agriculture targets. To ensure the project is aligned with the GoB's priorities, USAID formed a steering committee composed of representatives from the GoB, USAID, and IFDC to guide CSA. The steering committee is a quarterly forum for USAID and the GoB to establish mutual priorities, and to review the progress, challenges, and opportunities related to advancing climate-smart agriculture in Bangladesh.
- **U.S. Embassy Dhaka Nutrition Working Group**: Bangladesh is a USAID Nutrition Priority Country. To effectively coordinate U.S. Embassy efforts toward strengthening Bangladesh's nutritional outcomes, USAID chairs a USG interagency nutrition working group within the Embassy that meets quarterly. This working group is an important forum for coordinating interagency efforts toward achieving the objectives of USAID's Multi Sectoral Integrated Nutrition Plan and the GFSS Country Plan.

The three platforms outlined above provide the FtF Coordinator with sufficient opportunity to engage and share information with relevant stakeholders with the USG, the GoB, and the broader international development community.

F. Annexes

Annex 1: Stakeholders Consulted

To inform the development of the GFSS Country Plan, the FtF Bangladesh team invited farmers and representatives from government, the international donor community, the private sector, academia, and the media to participate in three stakeholder workshops that took place in cities across the country: Bogura, Jashore, and Dhaka. The stakeholder workshops covered a range of topics, including climate-smart agriculture, women's empowerment, policy opportunities and constraints, nutrition and water, sanitation, and hygiene, food safety, and agricultural research. The main findings from the stakeholder consultations are reflected in the plan, but include:

- the need to increase the adoption rate and awareness of climate-smart agriculture techniques and tools, such as precision agriculture, weather forecasting systems, and climate-resilient crop varieties;
- challenges faced by the private sector in obtaining relevant trade licenses and accessing finance;
- policy constraints related to licensing, subsidies and taxes, and seed certification;
- women's lack of access to information, market linkages, skills training, and high-quality agricultural inputs due to restrictive gender taboos;
- lack of public or private resources to support research and development of new seed varieties, as well as the lack of functional links between research and agricultural extension services; and
- poor nutritional outcomes driven by lack of knowledge and income, gender norms, such as child marriage, and poor access to adequate water, sanitation, and hygiene services.

As a supplement to these workshops, the FtF team also conducted a field visit to the Sylhet region where members conducted focus group discussions with farmers as well as with representatives from the private sector, academia, government, and research institutions. The main challenges identified included:

- low cropping diversity, intensity, and productivity;
- limited private sector presence and investment;
- fragmented markets, especially in the livestock sector;
- lack of access to high quality inputs, services, and breed across the crops, aquaculture, fisheries, and livestock sectors;
- high levels of cultivable fallow land;
- seasonal flooding; and
- lack of access to drinking and irrigation water

As shown in the table below, in total over 200 individuals were consulted in the development of the Country Plan.

No.	Name	Stakeholder Type	Organization	Designation	Location
1	Sohel Md. Shamsuddin Firoz	Government	Department of Agricultural Extension (DAE)	Deputy Director	Bogura
2	Md. Mizanur Rahman (RDA)	Government	RDA	Director-Agriculture	Bogura
3	Dr. Shaikh Mehdee Mohammad	Government	RDA	Director, Farm Technology, Irrigation and Water Resource Management Division	Bogura
4	Dr. Md. Zulfikar Haider Prodhan	Government	Spice Research Center	Chief Scientific Officer	Bogura
5	Md. Zakir Hossain	Government	BADC	Deputy Director	Bogura
6	Dr. Md. Rakebul Hasan	Government	BRRI	Principal Scientific Officer, BRRI RS Rangpur	Bogura
7	Dr. Md. Shahidul Alam	Government	BARI	Principal Scientific Officer	Bogura
8	Dr. Mahmud	Government	BARI		Bogura
9	Dr. Md. Mostafizur Rahman	Government	BWMRI	Senior Scientific Officer	Bogura
10	Engr. Md. Jahangir Alam	Government	Bangladesh Industrial Technical Assistance Center (BITAC)	Additional Director	Bogura
11	Anowarul Kabir	Government	Department of Fisheries	District Fisheries Officer	Bogura
12	Md. Motlubor Rahman	Government	DAE	Deputy Director	Bogura
13	A. Ja. Mu. Ahsan Shaheed Sarkar	Government	DAE	District Training Officer	Bogura
14	Md. Enamul Haque	Government	DAE	Additional Deputy Director (Grain)	Bogura
15	Md. Murshidul Haque	Government	DAE	Additional Deputy Director (Plant Protection)	Bogura
16	Mst. Sarmin Akter	Government	DAE	Additional Deputy Director (Horticulture)	Bogura
17	Md. Abu Sayeed Chowdhury	Government	DAE	Agriculture Engineer	Bogura
18	Md. Mahfuz Alam	Government	DAE	Upazila Agriculture Officer, Sadar, Bogura	Bogura
19	Most. Jannatul Ferdaous	Government	DAE	Upazila Agriculture Officer, Kahalo, Bogura	Bogura
20	Dr. Shailendra Nath Mozumder	Government	Spice Research Bogura	Principle Scientific Officer	Bogura
21	Md. Shahaduzzaman	Government	District Seed Certification Agency office, Bogura	District Seed Certification Officer	Bogura

No.	Name	Stakeholder Type	Organization	Designation	Location
22	Md. Mostofa Kamal	Government	Cotton Development Board, Bogura	Chief Cotton Development Officer	Bogura
23	Md. Faisal Azam	Government	Gaibandha District Fisheries Office	District Fisheries Officer	Bogura
24	Sayad Reja-e-Mahamud	Government	DAE Gaibandha	Upazila Agriculture Officer, Sadar	Bogura
25	Sarker Shafiuddin Ahmed	Government	DAE Bogura	Additional Director	Bogura
26	Md. Abul Kalam Azad	Government	DoF, Natore	District Fisheries Officer	Bogura
27	Md. Abdur Rauf	Government	DoF, Rajshahi	Divitional Deputy Director	Bogura
28	Dr. Mos. Nasrin Parvin	Government	DLS, Bogura	Additional District Livestock Officer	Bogura
29	Ahasanul Haque	Private Sector	Sajeeb Seeds		Bogura
30	Riasat Karim	Private Sector	Bahe Krishi Farm		Bogura
31	Md. Rafiqul Islam (Ispahani)	Private Sector	Ispahani	Area Manager	Bogura
32	Amitave Paul (Rep)	Private Sector	Uttaron Engineering	Director	Bogura
33	Md. Golam Muktadir Oli	Private Sector	Al-Madina Metal Works	CEO	Bogura
34	Engr. Md. Mahmudul Hasan	Private Sector	The Metal Ltd.	Sr. Executive	Bogura
35	Md. Belal Uddin	Private Sector	M/S Sonali Traders	Proprietor	Bogura
36	Md. Masudur Rahman Milon CIP	Farmers/Cooperatives/Business Associations	Bogura Chamber of Commerce and Industries	President	Bogura
37	Md. Golam Robbani	Farmers/Cooperatives/Business Associations	Famer Cooperative	Chairman	Bogura
38	Ms. Halima Khatun	Farmers/Cooperatives/Business Associations	Livestock Farmer	N/A	Bogura
39	Md. Golam Nabi	Farmers/Cooperatives/Business Associations	Adhunik Matsha Khamar	N/A	Bogura
40	Md. Wazed	Farmers/Cooperatives/Business Associations	Fish Nursery	N/A	Bogura
41	Bikash Chandra	Farmers/Cooperatives/Business Associations	Fish Farmer	N/A	Bogura
42	Md. Zakaria	Farmers/Cooperatives/Business Associations	Namuja, Bogar Para, Bogura	Farmer	Bogura

No.	Name	Stakeholder Type	Organization	Designation	Location
43	Md. Tariqul Islam	Farmers/Cooperatives/Business Associations	Namuja, Bogura	Farmer	Bogura
44	Md. Masud	Farmers/Cooperatives/Business Associations	Saha Para, Bogura	Farmer	Bogura
45	Sima Khatun	Farmers/Cooperatives/Business Associations	Namuja, Bogura	Farmers	Bogura
46	Md. Shahinur Islam	Financial Institutions	Rajshahi Krishi Unnayan Bank	Zonal Manager, Bogra	Bogura
47	Md. Mizanur Rahman	Financial Institutions	iFarmer	Regional Manager	Bogura
48	S.M. Abu Said	Journalist/Media	Dipto TV	Journalist, Dipto Krishi	Bogura
49	Prof. Dr. Md. Jalal Uddin	Academia	University Of Rajshahi	Dean, Animal & Veterinary Science	Bogura
50	Prof. Dr. Mustafigur Rahman	Academia	University Of Rajshahi	Chairman, Agronomy and Agricultural Extension	Bogura
51	Sujayet Kabir (Representative)	NGO/Development Partners	Swisscontact	IKM-Coordinator	Bogura
52	Mostafa Nurul Islam	NGO/Development Partners	RDRS	Head of Agriculture & Environment	Bogura
53	Shaikh Tariqul Islam	NGO/Development Partners	Syngenta Foundation for Sustainable Agriculture (SFSA)	Project Manager	Bogura
54	Dr. Mahabub Alam	NGO/Development Partners	GUK	Senior Director	Bogura
55	Md. Zakiul Hasan	NGO/Development Partners	HarvestPlus	Divisional Coordinator	Bogura
56	Md. Rafiqul Islam	NGO/Development Partners	Namuza Economic Development Organization (NEDO)	Executive Director	Bogura
57	Nigar Sultana	NGO/Development Partners	Thengamara Mohila Sabuj Sangha (TMSS)	Sector Head (IES)	Bogura
58	Md. Al Mamun	NGO/Development Partners	Mohishbathan Samaj Kallayan Samiti (MSKS)	Director	Bogura
59	Moksedul Arafat	USAID Implementing Partners	CIMMYT	Field Office Coordinator, CSISA-MEA activity	Bogura
60	M. Khairul Islam	NGO/Development Partners	TMSS	Executive consultant	Bogura
61	Dr. Mehrab Bakhtiar	International Organization	IFPRI	Research Fellow	Bogura
62	Md. Aminul Islam Khandaker	International Organization	IFPRI	Senior Database Manager	Bogura
63	Md. Nazrul Islam	International Organization	IFPRI	Sr. IT Specialist	Bogura

No.	Name	Stakeholder Type	Organization	Designation	Location
64	Sadat Anowar	International Organization	IFPRI	Research Analyst	Bogura
65	Md Redoy	International Organization	IFPRI	Research Officer	Bogura
66	Md Masum Ali	International Organization	IFPRI	Research Analyst	Bogura
67	Raisa Shamma	International Organization	IFPRI	Research Analyst	Bogura
68	Aminul Karim	International Organization	IFPRI	Research Analyst	Bogura
69	Riad Uddin	International Organization	IFPRI	Research Analyst	Bogura
70	Md. Abu Hossain	Department of Agricultural Extension (DAE)	GoB	Additional Director	Jashore
71	AKM Qamruzzaman	Bangladesh Agricultural Development Corporation (BADC)	GoB	Joint Director (SM)	Jashore
72	Md. Mahedi hasan Bindu (Rep)	Department of Livestock Services (DLS)	GoB	District Livestock Officer, Jashore	Jashore
73	Md. Nazharul Islam (Rep)	Excutive Engineer, BADC	GoB	Superintding Engineer, BADC, Jashore	Jashore
74	Md. Anisur Rahman	Dept. of Women Affairs	GoB	Deputy Director	Jashore
75	Bellal Bin Quashem	Islamic Foundation Bangladesh	GoB	Deputy Director	Jashore
76	Firoz Ahamed	Department of Fisheries (DoF)	GoB	District fisheries officer	Jashore
77	Dr. Md. Kowsar Uddin Ahmed	BARI (RARS)	GoB	Chief Scientific Officer	Jashore
78	Dr. Md. Motasim Ahmmed	Soil Resources and Development Institute (SRDI)	GoB	Principal Scientific Officer	Jashore
79	Dr. Tahmid Hossain Ansari	Bangladesh Rice Research Institute (BRRI)	GoB	Senior Chief Scientific Officer and Head, BRRI RS Sathkhira	Jashore
80	Md. Shariful Islam	Local Government Engineering Department (LGED)	GoB	Executive Engineer, Jashore	Jashore
81	Md. Amirul Islam	Seed Certification Agency (SCA)	GoB	District Seed Certification Officer	Jashore
82	Mezbah Uddin	Jhikargacha	GoB	Upzila social Service office	Jashore
83	Dr. Shafiqul Aktar	Russell IPM	Private Sector	Deputy Managing Director	Jashore
84	Nour-E-Alam	Akij Dairy	Private Sector	Asst. General Manager	Jashore
85	Khondoker Hamidul Islam	SDC Agro Ltd.	Private Sector	Operations Director	Jashore

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86	Md. Shareefiul-Amin	Maxim Agro	Private Sector	Proprietor	Jashore
87	Dr. Shafiqul Akter	Russell IPM Bangladesh Limited	Private Sector	Deputy Managing Director	Jashore
88	Sheikh Mesbah Uddin	Rupali fish hatchery	Private Sector		Jashore
89	Firoj Ahmed	Ma Fatema Hatchery	Private Sector	Proprietor & President of Hatchery Owners Association	Jashore
90	Md. Mahabub Alom Lablu	AFIL group of industries	Private Sector	Director	Jashore
91	Kh. Bayezid Bostami	Lal Teer Seed Ltd.	Private Sector	Regional Manager	Jashore
92	Md. Enayet Karim	Bangladesh Krishi Bank	GoB Specialized Ag Bank	DGM/Chief Regional Manager, Jashore	Jashore
93	Mrittunjoy Adhikary	Bank Asia Limited	Private Bank	Assistant Vice President and Head of Branch, Jashore	Jashore
94	Syed Johurul Goni	IDLC Finance Limited	Financial Institution (Non-Bank)	Branch Manager & Cluster Head SME Division	Jashore
95	Mohammad Soliman	Adarsha Chashi Agro Care Cooperative Society (ACCS)	Farmer Cooperative	Chairperson	Jashore
96	Md. Abdul Mannan	Baghdanga IPM Club, Jashore	Farmer Organization	Member	Jashore
97	Md. Najibuddula Sardar Kanak, NabiNawaz (Rep)	Consumer Association Bangladesh (CAB)	Non-profit Voluntary Org	General Secretary	Jashore
98	Abdur Rahim	Jashore Full Utpadak o Biponon Somobay Somit Limited	Flower Farmer Association	President	Jashore
99	Md. Ismail Hossain	Farmer cum Nursery owner	N/A	Farmer cum Nursery owner	Jashore
100	Sheikh Mahmudul Hasan		Rupali Fish hatchery	Managing Director	Jashore
101	Md Mahmudur Rahman	Subject Matter Expert	WeGro	Co-Founder & CEO	Jashore
102	Md. Joynal Abedin	N/A	N/A	Dairy farmer/processor	Jashore
103	Mst. Rowsanara Khatun	N/A	N/A	Dairy farmer/processor	Jashore
104	Harunur Rashid Musa	N/A	N/A	Fruit Farmer	Jashore
105	Obaidur Rahman	N/A	N/A	Vegetable Framer	Jashore
106	Md. Farukuzzaman	N/A	N/A	Commercial Fish Farmer	Jashore
107	Dr. Md. Mohasin Hussain Khan	Patuakhali Science and Technology University	Public University	Professor, Entomology Dept	Jashore

No.	Name	Stakeholder Type	Organization	Designation	Location
108	Dr. Mrityunjoy Biswas	Jashore University of Science and Technology	Public University	Professor and Chairman, Department of Agro Product Processing Technology	Jashore
109	Arun Kumar Biswas	Rural Reconstruction Foundation (RRF)	NGO	Director, All Department and Programs	Jashore
110	Zakia Sultana (Rep)	Khulna Mukti Seba Sangstha (KMSS)	NGO	Project Manager	Jashore
111	A. M. Wahiduzzaman (Rep)	Shushilan	NGO	Assistant Director	Jashore
112	Khaleda Akter	Development Alternative Inc. (DAI)	INGO	Regional Program Manager	Jashore
113	Dr. Abul Fazal	Solidaridad Network Asia	INGO	Programme Officer (SAFAL for IWRM)	Jashore
114	Shekh Mojammel Haque	Jagorani Chakra Foundation (JCF)	NGO	Project Manager	Jashore
115	Kbd. Dr. Asit Baran Mondal	NGO/Development Partners	Rural Reconstruction Foundation (RRF)	Project Manager	Jashore
116	Mr. Shaymal Kumer Paul	NGO/Development Partners	Small & Medium Seed Producers Association, Jashore	General Secretary	Jashore
117	Md. Jahangir Alam	NGO/Development Partners	Shishu Niloy Foundation (SNF), Jashore	Director (MFP)	Jashore
118	Mr. Mohammad Kamruzzaman	USAID Implementing Partner	ACDI/VOCA	DCOP, FtF Livestock Activity	Jashore
119	Mr. Ashfaq Enayetullah	USAID Implementing Partner	Abt Associates	DCOP, FtF Nutrition Activity	Jashore
120	Mr. Md. Fazle Karim	USAID Implementing Partner	PAE	M&E Manager, Agri Infra Project	Jashore
121	Mr. Mahmud Hassan	USAID Implementing Partner	Chemonics International Inc.	Regional Partnership Team Lead	Jashore
122	Mr. Mohammad Hasnal Alam	USAID Implementing Partner	WorldFish	Market Systems Specialist	Jashore
123	Shafiqul Khandakar Islam	USAID Implementing Partners	CIMMYT	Field Office Coordinator, CSISA-MEA activity	Jashore
124	Md. Ayub Hossain	The Daily Gramer Kagoj	Print Media	Chief Reporter	Jashore
125	Juwel Mridha (as a participant)	Somoy Media Ltd.	Electronic media	Ag Journalist	Jashore
126	Moloy Kumar Sur (Dr. Avijit Kumar Modak)	Government	DLS	Upazila Livestock Officer	Dhaka

No.	Name	Stakeholder Type	Organization	Designation	Location
127	Shahed Ali	Government	Ministry of Fisheries and Livestock	Deputy Director	Dhaka
128	Mahbubur Rahman	Government	FPMU, Ministry of Food	Research Director	Dhaka
129	Mr. Abdullah Sazzad ndc (Dr. Mahbub Alam)	Government	Bangladesh Agricultural Development Corporation (BADC)	Additional GM	Dhaka
130	Mr. Krishibid Mr. Ahmed Shafi (Dr. Md. Hasanul Kabir Kamale)	Government	Seed Certification Agency (SCA)	Chief Seed Technologist	Dhaka
131	Mr. Mohammad Liakat Hossain Khan (Md. Omor Faquk)	Government	Plant Quarantine Wing, DAE	Quarintine Entomologist(import)	Dhaka
132	Mr. Mohammad Maroof (Dr. Surajit Saha Roy)	Government	Agriculture Information Service (AIS)	Director	Dhaka
133	Dr. Md. Emdadul Haque Talukder (ABM Khaduzzaman)	Government	Department of Livestock Services (DLS)	Director General (DG)	Dhaka
134	Dr. S M. Jahangir Hossain (Dr. Nasrin Sultana)	Government	Bangladesh Livestock Research Institute (BLRI)	Director Research	Dhaka
135	Dr. Yahia Mahmud (Dr. Ehsanul Karim)	Government	Bangladesh Fisheries Research Inst. (BFRI)	Project Director	Dhaka
136	Dr. Md. Shahjahan Kabir (Md Saiful Islam)	Government	Bangladesh Rice Research Institute (BRRI)	PSO	Dhaka
137	Dr. Md. Abdul Awal (Dr. Nargis Akter)	Government	Bangladesh Jute Research Institute (BJRI)	Director AG	Dhaka
138	Mostafa Faruque al Bannah	Government	Associate Research Director	FPMU	Dhaka
139	Md. Sarwar Hossain (Alimul Bahar)	Government	Department of Public Health Engineering (DPHE)	Chief Engineer	Dhaka
140	Gopal Krishna Debnath (Akhter Hossain)	Government	Local Government Engineering Department (LGED)	Additional Chief Engineer, LGED	Dhaka
141	Mr. Md. Rejaul Karim	Government	Bangladesh Food Safety Authority (BFSA)	Member	Dhaka
142	Mr. Enamul Hoque (Mehedi Hasan Biswas)	Government	Bangladesh Standard and Testing Institute (BSTI)	Deputy Director (Ag & Food), Standards Wing	Dhaka
143	Dr. Sultan Mahmud	Private Sector	NAFCO	General Manager	Dhaka
144	Mr. Minhaj Chowdhury	Private Sector	Drinkwell	Chief Executive Officer	Dhaka
145	Md. Mizanur Rahman (ACI)	Private Sector	ACI Agribusiness Ltd	Business Operation manager	Dhaka

No.	Name	Stakeholder Type	Organization	Designation	Location
146	Mr. Mohammad Anisur Rahman (Ariful Islam)	Private Sector	BRAC Enterprise	Senior Director, Enterprises	Dhaka
147	Mr. A. F. M Asiif (Md. Enamul Kayes)	Private Sector	Bengal Meat	Chief Executive officer	Dhaka
148	Shubasish Barua	Private Sector	Green Delta Insurance Company Ltd.	Head of Impact Business and Senior Executive Vice President	Dhaka
149	Azizur Rahman	Private Sector	UCB Bank	FAVP & Head of SME portfolio	Dhaka
150	Scionard Shehry	NGO	Brac	Manager Advocacy	Dhaka
151	Eng. Sadid Jamil	Private Sector	Metal Agritech Ltd	Managing Director, Metal	Dhaka
152	Mr. Rick Hubbard (Michael Schwanb, Rep)	Private Sector	North End Coffee Roasters	Managing Director	Dhaka
153	Mr. Mohammad Kalim Uddin	Private Sector	Chittagong Meridian Agro Industries Limited	Supply Chain Manager	Dhaka
154	Mr. Mohammad Sazzad Hossain	Private Sector	Abul Khair Leaf Tobacco Co. Ltd	In-Charge, Coffee, and Cashew nut Cultivation Department	Dhaka
155	Mr. Md. Shakib Reswan	Private Sector	Aftab Feed Products Ltd	Manager – Technical Services	Dhaka
156	Mr. Md. Monjurul Islam	Associations/Business Chambers	Bangladesh Fruits Vegetables and Allied Products Exporters Association	Advisor	Dhaka
157	Ms. Rita Bromo	Associations/Business Chambers	Sara Bangla Krishak Society	President	Dhaka
158	Mr. Md. Humayun Kabir	Associations/Business Chambers	Bangladesh Frozen Foods Exporters Association	Director	Dhaka
159	Mr. Anwar Faruque	Associations/Business Chambers	Bangladesh Seed Association (BSA)	Advisor	Dhaka
160	Prof. Dr. A. H. M. Saiful Islam	Academia	Bangladesh Agricultural University	Professor, Department of Agricultural Economics	Dhaka
161	Quamrun Nahar	Academia	BIRDEM	Principal Research Officer	Dhaka
162	Mr. Rejaul Karim Siddique (As a participant not as a media)	Media/Journalist	BSAFE Foundation	General Secretary, BSAFE Foundation and Anchor, Mati-o-Manush	Dhaka
163	Mr. Khorshed Alam (As a participant not as a media)	Media/Journalist	AgriNews24.com	CEO & Editor, AgriNews24.com	Dhaka
164	Mr. Madhab Chandra Das	USAID Implementing Partner	Virginia Tech	Country Manager, IPM Activity	Dhaka

No.	Name	Stakeholder Type	Organization	Designation	Location
165	Mr. Muhammad Nurul Amin Siddiquee	USAID Implementing Partner	ACDI/VOCA	COP, FtF Livestock	Dhaka
166	Dr. Md. Sirajul Islam	USAID Implementing Partner	IRRI, Bangladesh	Chief of Party, IRRI Rice Breeding Activity	Dhaka
167	Mr. Ramakrishnan Ganesan	USAID Implementing Partner	Abt Associates	COP, FtF Nutrition Activity	Dhaka
168	Mr. Md. Abul Kalam Azad	USAID Implementing Partner	PAE	COP, FtF Agri Infra	Dhaka
169	Mr. Philip DeCosse	USAID Implementing Partner	Chemonics International Inc.	COP, FtF Horticulture activity	Dhaka
170	Mr. Owen Duncan Calvert	USAID Implementing Partner	CIMMYT	COP, FtF Mechanization activity	Dhaka
171	Dr. Benoy Kumar Barman	USAID Implementing Partner	WorldFish	Senior Scientist	Dhaka
172	Peerzadi Rumana Hossain	USAID Implementing Partner	WorldFish	R&D Scientist	Dhaka
173	Mr. Marc Shiman	USAID Implementing Partner	IDG	COP, FtF Trade activity	Dhaka
174	Mr. Faheem Khan	USAID Implementing Partner	DAI	Country Lead, Ag Policy activity	Dhaka
175	Mr. Robert Simpon (Kate-representative)	Development Partner	FAO	FAO Representative in Bangladesh	Dhaka
176	Han Han	Development Partner	HKI	Program Manager	Dhaka
177	Dr. Sayeda Ziwa Rashid	Development Partner	Embassy of Switzerland	Sr. Program Officer	Dhaka
178	Khalilur Rahamn	CAB Advisor	CAB	Advisor	Dhaka
179	Md. Ruhul Amin	Media/Journalist	G Bangla	Journalist	Dhaka
180	Muhammad Ekhlas Uddin	Govt		Examiner-Agri and Food	Dhaka
181	Farjana Rahman Bhuiyan	Govt	BIRTAN	SSO	Dhaka
182	Zahid Hasan	Govt	PMO	FO	Dhaka
183	Dr. Md Saifullah	Govt	BARC	MDCA&F	Dhaka
184	Dr. Humnath Bhandari (Monoranjan Kumar Mondal)	International Organization	IRRI	IRRI Representative for Bangladesh and Agricultural Economist	Dhaka
185	Dr. Debashish Chanda	International Organization	CIP	Country Program Coordinator	Dhaka
186	Md. Wahidul Amin	International Organization	HarvestPlus	Country Coordinator	Dhaka
187	Mr. Subrata Kumar Kundu	Subject Matter Expert	Bhalo Social Enterprise	CEO (Char Market System Expert)	Dhaka
188	Md Mahmudur Rahman (Shah Md Yasir)	Subject Matter Expert	WeGro	HOO	Dhaka

No.	Name	Stakeholder Type	Organization	Designation	Location
189	Fahad Ifaz (Archi Ananya)	Subject Matter Expert	iFarmer	Impact manager	Dhaka
190	Ms. Ishrat Jahan	Development Partner	IFDC	Chief of Party	Dhaka
191	SM Mahmudul Islam	Development Partner	GAIN	Acting Coordinator	Dhaka
192	Mr. Md. Musharraf Hussain Khan	Government	Department of Ag. Extension	Additional Director	Sylhet
193	Mr. Mohammad Khayer Uddin Mollah	Government	Department of Ag. Extension	Deputy Director	Sylhet
194	Mr. Md. Ahsan Hasib Khan	Government	Department of Fisheries	District Fisheries Officer	Sylhet
195	Dr. Md. Alamgir Kabir	Government	Department of Livestock Services	District Livestock Officer	Sylhet
196	Mr. Tahmin Ahmed	Private Sector	Sylhet Chamber of Commerce and Industries	President	Sylhet
197	Mr. Mostifizur Rahman	Private Sector	Sylhet Chamber of Commerce and Industries	President	Sylhet
198	Prof. Dr. Md. Abdul Kashem	Academia	Sylhet Agricultural University	Crop Scientist	Sylhet
199	Prof. Dr. Mrityunjoy Kundo	Academia	Sylhet Agricultural University	Fisheries Scientist	Sylhet
200	Prof. Dr. Md. Jasim Uddin	Academia	Sylhet Agricultural University	Livestock Scientist	Sylhet
201	Prof. Dr. Jasim Uddin Ahmed	Academia	Sylhet Agricultural University	Agriculture Economist	Sylhet
202	Prof. Dr. Shah Alamgir	Academia	Sylhet Agricultural University	Agribusiness Studies	Sylhet
203	Md. Mahabub Hasan	Development Partner	Suchana Project Staff	Deputy Program Director	Sylhet

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