REPUBLIC OF GHANA

MINISTRY OF
FOOD & AGRICULTURE
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Feed Ghana Programme (FGP)

A Four-Year Agricultural Transformation Programme (2025 - 2028)

JULY 2025

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List of acronyms

AEAs	Agricultural Extension Agents
AETA	Agriculture for Economic Transformation Agenda
AfCFTA	African Continental Free Trade Area
AgPEs	Agro Production Enclaves
AHPC	Animal Health and Production College
AI	Artificial Intelligence
AMR	Anti-Microbial Resistance
AMSECs	Agricultural Mechanization Service Centres
APD	Animal Production Directorate
ASF	African Swine Fever
AU	African Union
AWD	Alternative Wetting and Drying
AWMP	Agricultural Water Management Project
BIP	Backwards Integration Policy
BNARI	Biotechnology and Nuclear Agriculture Research Institute
BoG	Bank Of Ghana
CAADP	Comprehensive Africa Agriculture Development Programme
CPESDP	Coordinated Programme of Economic and Social Development Policies
CPMD	Cashew Powdery Mildew Disease
CRI	Crops Research Institute
CSIR	Council for Scientific and Industrial Research
DADs	District Agricultural Departments
DCS	Directorate of Crop Services
DoCs	Day Old Chicks
ECOWAP	Economic Community of West Africa Agricultural Policy
ECOWAS	Economic Community of West African States
EPA	Environmental Protection Authority
ESMP	Environmental and Social Risks and Management Plan
EU	European Union
EUDR	European Union Deforestation Regulation
EXIM	Export and Import Bank
FAO	Food and Agriculture Organization
FASDEP	Food and Agriculture Sector Development Policy
FBOs	Farmer-Based Organizations
FFB	Fresh Fruit Bunches
FGP	Feed Ghana Programme
FSCs	Farmer Service Centres
FSRP	Food System Resilience Programme
GAPs	Good Agricultural Practices
GCX	Ghana Commodity Exchange
GDP	Gross Domestic Product
GEPA	Ghana Export Promotion Authority
GhAAP	Ghana Agriculture and Agribusiness Platform
GhARM	Ghana Agriculture Risk Management
GICSP	Ghana Industrial Cassava Stakeholders Platform
GIDA	Ghana Irrigation Development Authority

GIRSAL	Ghana Incentive-Based Risk-Sharing Agricultural Lending
GLDB	Grains and Legumes Development Board
GLOBALGAP	Global Good Agricultural Practices
GMP	Good Management Practice
GNTTTA	Ghana National Tomato Traders and Transporters Association
GoG	Government of Ghana
GPMP	Good Poultry Management Practices
GSA	Ghana Standards Authority
GSS	Ghana Statistical Service
Ha	Hectare
HAPPY	Harnessing Agricultural Productivity and Prosperity for Youth
HPAI	Highly Pathogenic Avian Influenza
HQCF	High-Quality Cassava Flour
ICT	Information Communication Technology
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IWCP	Irrigation for Wealth Creation Project
ISC	Irrigation Service Charge
ISSER	Institute of Statistical, Social and Economic Research
JICA	Japan International Cooperation Agency
L.I	Legislative Instrument
MAP	Modified Atmosphere Packaging
MDAs	Ministries, Departments and Agencies
M&E	Monitoring and Evaluation
MLNR	Ministry of Lands and Natural Resources
MMDAs	Metropolitan Municipal and District Assemblies
MoF	Ministry of Finance
MoFA	Ministry of Food and Agriculture
MoFAD	Ministry of Fisheries and Aquaculture Development
MT	Metric Tonnes
NAFCO	National Food Buffer Stock Company
NDPC	National Development Planning Commission
NGOs	Non-Governmental Organisations
NMTDPF	National Medium-Term Development Policy Framework
NOC	National Oversight Committee
NPK	Nitrogen, Phosphorus, Potassium
NSA	National Service Authority
NTE	Non-Traditional Export
O&M	Operations and Maintenance
OER	Oil Extraction Rate
PFJ	Planting for Food and Jobs
PPMED	Policy Planning, Monitoring and Evaluation
PPP	Public-Private Partnership
PPRSD	Plant Protection and Regulatory Services Directorate
PRA	Participatory Rural Appraisal
PSIC	Presidential Special Initiative on Cassava
PWDs	Persons with Disabilities
RADs	Regional Agricultural Departments
RCN	Raw Cashew Nut
RSPO	Roundtable on Sustainable Palm Oil
RTIMP	Roots and Tuber Improvement and Marketing Programme
SDGs	Sustainable Development Goals
SHEP	Smallholder Horticulture Empowerment and Promotion
SPS	Sanitary and Phytosanitary
SRID	Statistics, Research and Information Directorate
TCDA	Tree Crops Development Authority
TIC	Technical Implementation Committee
ToT	Training of Trainers
TOR	Terms of Reference
UCC	University of Cape Coast
VSD	Veterinary Services Directorate
VSLA	Village Savings and Loans Association
WACCI	West Africa Centre for Crop Improvement
WAAPP	West Africa Agricultural Productivity Programme
WIAD	Women in Agricultural Development Directorate
YAP	Youth Agriculture-Estate Programme
YEA	Youth Employment Agency

Foreword

His Excellency, John Dramani Mahama
President, Republic of Ghana

Hon. Eric Opoku (MP)
Minister for Food and Agriculture

Agriculture remains the backbone of Ghana's economy contributing 21% of GDP and directly employing 38.3% of the population. Agriculture is not merely a means of livelihood but a cornerstone of our national identity, our culture, and our future prosperity. Despite its immense potential, the sector faces persistent challenges including low uptake of technology, climate-related shocks, limited irrigation and related infrastructure, as well as limited access to finance and market access.

The Feed Ghana Programme is the government's flagship initiative designed to accelerate the transformation and modernization of the agricultural sector. It emerges at a time when food security and improved nutrition is not only a development goal but a critical component of national resilience and sovereignty.

This document outlines a bold, strategic framework to strengthen Ghana's agricultural food systems, enhance productivity, supply raw materials to industries, and ensure that every Ghanaian has increased access to affordable nutritious food. It is a call to action to policymakers, farmers, development partners, investors, and the private sector to work collaboratively toward a common goal to transform the sector.

This programme recognizes the central role of farmer cooperatives in driving this transformation agenda. It also places a premium on innovation, infrastructure, markets, climate resilient practices, and inclusive participation that leaves no one behind.

The FGP is anchored on the overarching sector policy, the Food and Agriculture Sector Development Policy (FASDEP II) and its corresponding medium-term plans, which outline various programmes and initiatives for agriculture development. It is also aligned to national and international developmental frameworks. These include the National Medium-Term Development Policy Framework (NMTDP), the ECOWAS Agricultural Policy (ECOWAP) framework at the sub-regional level, the Kampala Declaration of the Comprehensive African Agriculture Development Programme (CAADP), which is the agricultural component of the African Union Agenda 2063 at the continental level, and the Sustainable Development Goals (SDGs) at the global level.

As we embark on this journey, we are guided by the principles of sustainability, equity, and shared prosperity. The path ahead demands commitment, coordination, and courage; and should culminate in a well-nourished populace, a thriving rural economy, job creation, and a resilient agricultural sector.

The Feed Ghana Programme is not just a strategic plan but a promise of hope to farmers and Ghanaians in general.

His Excellency, John Dramani Mahama
President, Republic of Ghana

Acknowledgement

The development of the Feed Ghana Document (2025-2028) is a collaborative effort of the Ministry of Food and Agriculture (MoFA) and its partners and stakeholders.

The Ministry extends gratitude to Directors, Staff, Project Coordinators, Development Partners especially AGRA, Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), the World Bank, as well as Research and Academia, Farmer-Based Organisations (FBOs), Civil Society Organisations, the Private Sector, Decentralized Departments of Agriculture (DDAs), for their invaluable contribution to the development of the Feed Ghana Programme document.

Special thanks to the Minister for Food and Agriculture, Hon. Eric Opoku, for providing strategic direction and spearheading the development process. Many thanks to the Ag. Chief Director, Mr. Paul Siameh, Technical Advisor to the Minister, Hon. Kwasi Etu-Bonde, the Feed Ghana Coordinator Hon. Bright Demordzi, the Technical Team and the consultants, Mr. Kwesi Korboe and Ms. Angela Dannson.

We are very grateful for the time, energy and insights provided by all stakeholders across the length and breadth of the country during them development of this document. The development of the FGP strategic document is an important accomplishment, and we are grateful to all who have made it possible.

Executive Summary

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The Feed Ghana Programme (FGP) is the Government of Ghana's flagship agricultural transformation initiative being implemented through the Ministry of Food and Agriculture (MoFA). The FGP is designed to reposition the country's food system as a productive, market-driven and resilient engine of economic growth. The FGP spans the period 2025 to 2028 and is anchored in the Government's Agriculture for Economic Transformation Agenda (AETA). It represents a bold response to the challenges in Ghana's agricultural sector.

Over the years, the sector has been constrained by low productivity, high post-harvest losses, limited access to credit and technology, weak value chain integration, and an over-reliance on food imports. The FGP builds on the lessons of past flagship interventions, while shifting toward a more integrated, technology and data-driven, and institutionalised model for driving systemic change.

The FGP is aligned with key national and international development frameworks including Ghana's Coordinated Programme of Economic and Social Development Policies (CPESDP), the ECOWAS Agricultural Policy (ECOWAP), the Comprehensive Africa Agriculture Development Programme (CAADP), and the UN Sustainable Development Goals (SDGs).

The overarching goal of the FGP is to accelerate the transformation of Ghana's agricultural sector, ensure food security, create sustainable employment and enhance economic growth by reducing import dependency while boosting domestic production and exports. Its six interrelated objectives are to:

1. Increase agricultural productivity and production to reduce imports
2. Enhance food security and improve nutritional outcomes
3. Increase raw material for agro-industry
4. Enhance value addition
5. Increase Agricultural Export
6. Create Jobs and wealth

The programme prioritises specific value chains that offer high potential for enhancing food security, generating employment, fostering agro-industrial growth and promoting climate resilience. These include cereals and legumes (maize, rice, soybean, sorghum), vegetables (tomato, onion, pepper), starchy staples (cassava, yam, plantain), industrial tree crops (mango, cashew, coconut, oil palm, shea), and livestock (poultry, pigs, cattle, sheep and goats).

The FGP is structured around nine strategic sub-programmes:

1. **Crop Development** – focuses on productivity gains through smart agriculture, improved seed systems, irrigation, mechanisation and post-harvest infrastructure.

2. **Livestock Development** – promotes animal production, genetic improvement, veterinary services and dietary diversification.

3. **Farmers' Service Centres (FSCs)** – will establish 270 district-level one-stop centres to provide agricultural services including agro-inputs, mechanisation, market access, extension and advisory services.

4. **Farm Bank Development** – mobilises and rehabilitates underutilised land to establish production zones for smallholder and large-scale farmers.

5. **Institutional Farming** – support schools, faith-based institutions, security services, corporate bodies and other organisations in cultivating food to boost local production for consumption and training purposes.

6. **Feed the Industry (Tree Crops Development)** – strengthens the supply of raw materials for selected tree crops used in agro-processing through the provision of better planting materials, quality assurance and processing infrastructure.

7. **Agro-Production Enclaves** – Develop 100,000 hectares into commercial hubs equipped with irrigation systems, roads, warehouses and processing facilities to attract investment and consolidate production.

8. **Innovative Agricultural Financing** – expands credit and insurance through blended finance, input credit schemes and risk-sharing mechanisms, leveraging GIRSAL and working with the Financial Institutions and their regulator, the Bank of Ghana, with a target to raise agriculture's share of total bank lending from a current 4.7% to 10% by 2028.

9. **Institutional Development and Management Research** – revitalises MoFA's Directorates and Agencies (e.g., GIDA, VSD, TCDA, DAES, APD, DCS, PPRSD) through targeted capacity-building, staff recruitment and improved regulatory enforcement. It will also undertake management research to enhance efficiency and performance within the agri-food system.

To ensure effective implementation, the FGP will employ a multi-tiered institutional arrangement that involves national, regional and district-level coordination. At the apex, a National Oversight Committee (NOC) comprising key stakeholders from the government, private sector, development partners and civil society will provide strategic guidance.

A Technical Implementation Committee (TIC), chaired by the Chief Director of MoFA, will oversee implementation across the programme components. Regional and district agricultural departments will play a frontline role in the operational rollout, supported by technical directorates and parastatals under the Ministry of Food and Agriculture (MoFA). Key institutional reforms will focus on enhancing inter-agency coordination, developing digital monitoring systems, and refining performance management frameworks to improve overall effectiveness.

A robust Monitoring, Evaluation, and Learning (MEL) framework underpins the programme. The MEL system includes a Theory of Change and Results Framework aligned to programme goals and national development indicators. It provides mechanisms for data collection, validation, quality review and real-time reporting. A centralised digital platform will integrate data from MoFA's directorates and partners, supporting evidence-based decision-making. Routine field assessments and impact evaluations will ensure adaptive management and accountability, while learning loops will enable mid-course corrections based on emerging trends and insights.

To mitigate potential obstacles, the programme incorporates a comprehensive risk management framework. Environmental risks such as climate change and illegal mining (galamsey) are addressed through climate-smart agriculture, water harvesting, conservation and reforestation efforts. Production and market-related

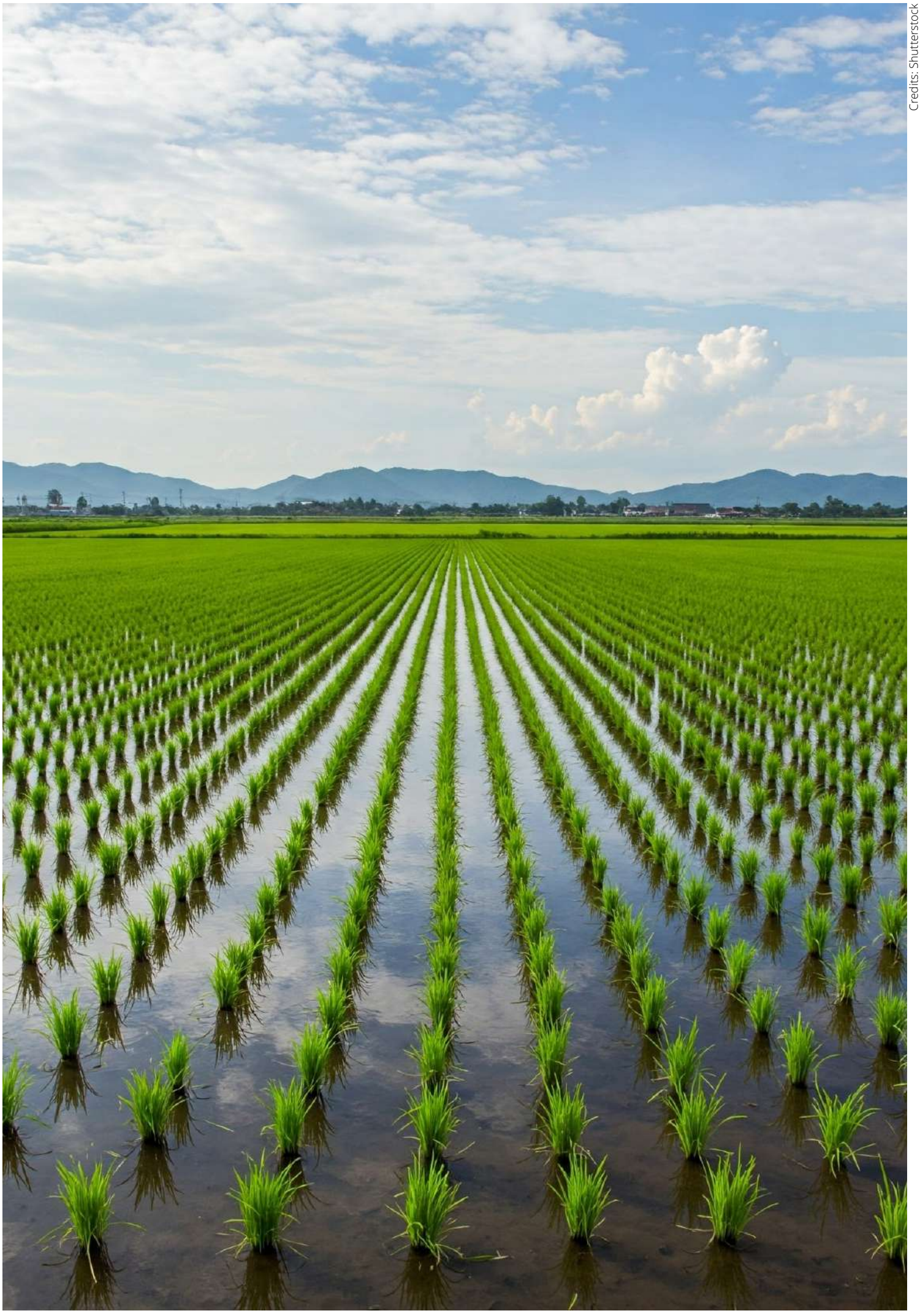
risks including pest infestations, post-harvest losses and commodity price volatility are mitigated through improved input systems, enhanced warehousing, aggregation and strengthened market linkages.

Policy, regulatory and institutional risks are mitigated through legislative reforms, stronger inter-ministerial coordination and decentralised delivery structures. Social safeguards are also built in, ensuring inclusivity, gender equity and youth engagement, particularly for vulnerable and marginalised communities.

By the end of the programme, Ghana is expected to achieve complete self-sufficiency in rice, maize, soybeans with poultry at 76%. Agricultural GDP is projected to grow at a rate of 6% per annum while non-traditional agricultural exports are expected to increase by 20%. Over 2.6 million jobs (direct and indirect) will be created, 270 Farmer Service Centres will be operational nationwide, and post-harvest losses for cereals and vegetables will decline as a result of improvement in storage infrastructure and practices. Women, youth and PLWDs will be meaningfully integrated into commercial agriculture, contributing to a more equitable and modernised rural economy.

In essence, the FGP represents a strategic shift in Ghana's agricultural development model from a fragmented and subsidy-heavy approach to an integrated, market-aligned and institutionally grounded one. It provides a credible pathway to food sovereignty, economic diversification and long-term rural transformation.

It is estimated that a total amount of GHS 302.21 billion will be required to effectively implement the FGP. This is to be sourced through Government budgetary support, Private sector, NGOs and Development partners initiatives.



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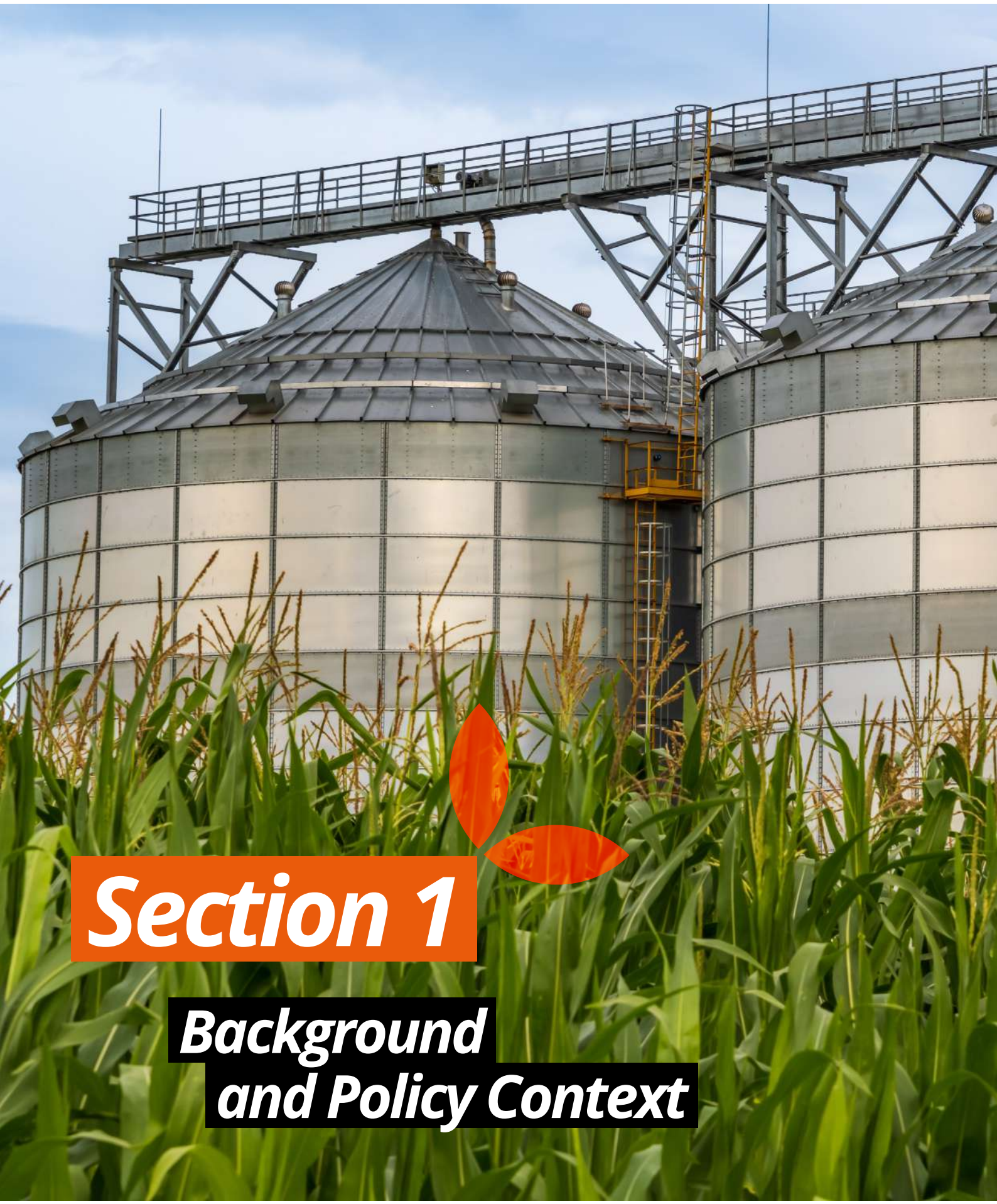

Section 1

Background and Policy Context

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The Agricultural Sector remains a key driver of Ghana's economy, employing 38.3% of the total workforce and providing raw material for industry. It also accounts for approximately 21% of the national Gross Domestic Product (GDP). In the past eight (8) years, agricultural GDP grew at an average annual rate of 5.6%, reaching a high of 8.5% in 2021 and declining to its lowest of 2.8% in 2024 (GSS, 2025).

The Agricultural Sector consists of five subsectors: Crops, Cocoa, Livestock, Fisheries and Forestry/Logging. While the Ministry of Food and Agriculture (MoFA) oversees the Crop and Livestock subsectors, the Fisheries and Forestry/Logging subsectors are under the Ministry of Fisheries and Aquaculture Development (MoFAD) and the Ministry of Lands and Natural Resources (MLNR) respectively. The oversight of the Cocoa subsector, which was transferred from the Ministry of Finance (MoF) to MoFA for the past eight (8) years (2017-2024), has reverted to the former.

Over the past eight years, agricultural policies and plans have been implemented through flagship programmes and projects. Among the initiatives implemented in the agricultural sector in the last eight (8) years (2017-2024) was the Planting for Food and Jobs (PFJ) programme. The PFJ, which focused on input subsidy in Phase I, evolved into an input credit system in Phase II (PFJ 2.0) between 2023 and 2024.

Some notable achievements of previous interventions in the sector include: increased fertiliser application rate from 8 kg/ha (2008) to 25 kg/ha (2023); increased utilization of certified seeds from 12% to 35%; and increased land area under irrigation from 221,776 ha to 229,196 ha. These resulted in increased production of selected staple commodities such as cassava, rice and maize, by 60%, 64% and 91%, respectively within the period.

Despite these achievements and efforts over the years to accelerate the transformation of the agricultural sector, it continues to face structural and operational challenges that hinder the realization of its full potential. These include:

i. Low production and productivity of some major staple crops: Caused by low adoption of modern and innovative technologies, limited extension services, poor quality of agricultural inputs and over-reliance on rainfed agriculture.

ii. High post-harvest losses: Post-harvest losses for vegetables ranges from 34% to 62%, depending on the type of vegetable and those for cereals are between 16% and 34% (MoFA, 2023). The key contributory factors are lack of appropriate harvesting machinery, poor post-harvest handling, limited storage infrastructure and low value addition.

iii. Inadequate infrastructure: Limited infrastructure such as irrigation, feeder roads especially those leading to farm centres, high cost of energy, warehouses, packhouses are key constraints to agricultural production, marketing and processing.

iv. Limited access to agricultural credit: This remains a significant barrier to investment, productivity, and overall growth in Ghana's agricultural sector. According to the Bank of Ghana's January 2025 Monetary Report, credit to primary agriculture accounted for only 4.7% of total credit in 2024, up slightly from 3.9% in 2023.[1] Data from the 2023 CAADP Biennial Review Report indicates that only 21.6% of actors engaged in agriculture had access to any form of financial service, underscoring the persistent exclusion of the majority of rural agricultural actors from formal finance.

1 These figures exclude lending to large-scale processors, manufacturers, and related service providers

v. Over-reliance on food imports: According to the GSS's 2024 Trade Report, Ghana's annual food import bill was GHS 26.7 billion in 2023 ($ 2.30 billion USD). This highlights the scale of Ghana's food imports and emphasizes the need to step-up domestic food production to reduce the food import dependency.

vi. Weak value-chain integration: The prevalent weak coordination among value chain actors results in inefficiencies, delays, food losses and increased operational costs, which consequently negatively impact profitability and competitiveness.

vii. Weak regulatory oversight by Government Agencies: Weak regulatory oversight by government regulators, resulting in poor quality agro-inputs imported in the country and used by agribusinesses and farmers is a significant hindrance to agricultural productivity.

viii. Inadequate technical professionals: Technical expertise required for the development of commodities along the entire agricultural value chain from production to marketing is limited. As a result, value chains are often underdeveloped and fail to reach their full potential.

These challenges require a more coordinated approach involving policy reforms, investment in infrastructure and technology, capacity building for farmers and other value chain actors, and stronger linkages between production, processing and markets to build a resilient and competitive food system.

The Feed Ghana Programme is the government's flagship initiative designed to address these challenges and accelerate the transformation of the agricultural sector. It builds on previous efforts and policies, taking cognisance of lessons learnt.

Policy Context

The government's food security and modernisation agenda continues to be anchored on the overarching sector policy, the Food and Agriculture Sector Development Policy (FASDEP II) and its corresponding medium-term plans, which outline various programmes and initiatives for agriculture development.

The Feed Ghana Programme is embedded in several developmental frameworks. This includes the Coordinated Programme of Economic and Social Development Policies (CPESDP), the ECOWAS Agricultural Policy (ECOWAP) framework at the sub-regional level, the Comprehensive African Agriculture Development Programme (CAADP), which is the agricultural component of the African Union Agenda 2063 at the continental level, and the Sustainable Development Goals (SDGs) at the global level.

Global Context: The Sustainable Development Goals (SDGs) provide a framework for a comprehensive agenda for sustainable development. Out of the 17 SDG goals, at least ten of these: Goals 1(no poverty), 2 (zero hunger), 3 (health & wellbeing), 5 (gender equality), 6 (water & sanitation), 7 (energy), 8 (decent work), 12 (responsible consumption & production), 13 (climate action), 15 (life on land) and 17 (Partnership for the goals) are directly or indirectly linked to agriculture. This makes the performance of the food and agriculture sector fundamental to realizing the SDGs.

Continental Context: The African Union's Agenda 2063 envisions inclusive growth and sustainable development across the continent with agriculture playing a central role in fostering economic growth and improving livelihoods. Under this vision, CAADP aims to drive economic growth by prioritizing agriculture and addressing hunger and poverty. Building on the Maputo Declaration (2003) and the Malabo Declaration (2014), the Kampala Declaration (2026 - 2035), adopted in 2025 shifts from a narrow focus on agriculture-led growth to a broader agri-food systems approach. The Kampala declaration emphasizes collaboration, investment and innovation to transform agri food systems into sustainable, resilient and inclusive engines of growth. Coupled with the AfCFTA's emerging single market (1.7 billion people and US $6.7 trillion in spending by 2030), the FGP leverages these regional frameworks to accelerate sustainable sector growth, enhance value chain linkages and expand market access.

National Context: The current national strategic framework guiding the government's development agenda is the National Medium-Term Development Policy Framework (2022-2025). Its successor, covering the period 2026 - 2029, is drawn from the President's Coordinated Programme of Economic and Social Development Policies (CPESDP), which guides investment in the medium to long-term. The agricultural component of the successor framework has eight (8) policy objectives outlined below:

i. Create an Enabling Agribusiness Environment
ii. Enhance agricultural production and agri-business for economic transformation
iii. Enhance Sustainable and Resilient Food Production System
iv. Promote Food Transformation (processing and value-addition)
v. Improve Post-harvest Management
vi. Build Resilience to Vulnerabilities, Shocks and Stresses
vii. Promote agriculture as a viable business among the Youth
viii. Promote Livestock and Poultry Development

It is against these policies and development context that the Feed Ghana Programme (FGP, 2025-2028) is designed as the government's primary vehicle for operationalizing planned investments to transform Ghana's agricultural sector.

Section 2

The Feed Ghana Programme

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The Government of Ghana has introduced the Agriculture for Economic Transformation Agenda (AETA) to accelerate the growth and modernization of the agricultural sector. To implement this agenda, MoFA has designed the Feed Ghana Programme (FGP) as its flagship programme to provide food to the people and raw materials for the agro-industry. It is the umbrella programme of the Ministry to contribute to achieving the overall goal of the AETA. This programme includes targeted strategies and specific projects focused on increasing food production and improving agricultural efficiency through modernized farming practices, infrastructure development and the creation of agro-industrial zones.

A core component of this programme is the establishment of Farmers' Service Centres (FSCs) across the country. These centres are strategically designed as one-stop hubs to provide farmers with timely access to essential inputs and services such as improved seeds, fertilizers, mechanization services, extension support, climate-smart technologies and market information. By bridging the gap between farmers and critical agricultural services, the FSCs aim to improve operational efficiency at the farm level and facilitate the transition toward more commercialized and modern farming systems.

Additionally, the Feed Ghana Programme promotes investments in infrastructure, including irrigation systems and rural roads, alongside the development of agro-industrial zones to drive processing and reduce post-harvest losses.

Collectively, these efforts are expected to ensure food security, significantly mitigate food inflationary pressures, enhance agricultural exports and make a meaningful contribution to sustainable and long-term economic growth.

2.1. Goal and Objectives

The Programme's overall goal is to accelerate the transformation of Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports. The programme has the following six interrelated specific objectives:

i. ***Increase agricultural productivity and production to reduce imports****: Increase productivity of major staples such as maize (2.6Mt/ha), rice (2.6 Mt/ha) and soyabean (1.62 Mt/ha) to 4.05 Mt/ha (56%), 4.80 Mt/ha (85%), and 2.33 Mt/ha (44%) respectively.*

ii. ***Enhance food security, reduce the cost of a healthy diet and improve nutritional outcomes****: Improve Ghana's food self-sufficiency status of major food staples (target commodities) to at least 100% by 2028 to reduce the cost of a healthy diet and improve all the key nutritional outcome indicators such as increased food availability, intake and dietary diversity etc.*

iii. ***Increase raw material for agro-industry****: Increase raw material supply to agro-industry by 30% from local sources.*

iv. ***Enhance value addition****:*

- → *Increase the percentage of agro-produce processed locally.*
- → *Increase the number of agro-industrial firms and their processing capacities by providing enablers for the private sector to invest in this space.*

v. ***Increase Agricultural Export****: Increase non-traditional agricultural export by at least 20%.*

vi. ***Create Jobs and wealth****: Creation of at least 900,000[2] direct jobs and 1,700,000[3] indirect jobs by the end of 2028.*

2 According to the World Bank (2017) – Jobs from Agriculture in Africa report estimated job creation in staple crop agriculture ranges from 10 to 25 jobs per 100 hectares, varying by crop intensity. These jobs created are estimated from the increment in area under cultivation
3 According to the ILO (2019) - In agriculture/rural value chains, every direct job can generate 1.5–2 indirect jobs in transport, processing, and services.

2.2. Guiding Principles of FGP

The implementation of the FGP is underpinned by a core set of guiding principles aimed at ensuring effective delivery, sustainability, inclusiveness and impact. These principles provide a framework for the design implementation and alignment of interventions and mobilising stakeholders for achieving the programme's transformative vision. They are:

i. Market-Oriented and Demand-Driven Approach - Interventions under the FGP are guided by market demand, ensuring that production aligns with consumption patterns, industrial requirements and export opportunities. Interventions also aim to promote commercial viability, reduce post-harvest losses and support long-term sustainability through market responsiveness.

ii. Inclusive Growth and Equity – Prioritises gender inclusivity, youth engagement and support for vulnerable groups. Interventions are designed to empower women, youth and persons with disabilities to participate in and benefit from agricultural value chains actively.

iii. Private Sector-Led Implementation – Facilitate private sector leadership and participation by forging partnerships with agribusinesses, financial institutions and service providers. Provide a conducive policy and regulatory environment that attracts and sustains private investment.

iv. Decentralised and Participatory Planning – Deliver the programme through regional and district-level structures with full participation of local governments, traditional authorities and farmer organisations. Foster local ownership and tailor interventions to specific community needs.

v. Climate Resilience and Sustainability – The FGP integrates climate-smart agricultural practices, natural resource conservation and environmental safeguards. It seeks to enhance the resilience of farming systems to climate variability and reduce the ecological footprint of production systems.

vi. Innovation and Technology Integration – The programme embraces modern technologies such as digital agriculture, mechanisation, improved seed systems and precision farming as essential tools for increasing productivity, efficiency and competitiveness across value chains.

vii. Institutional Coordination and Policy Alignment - Establish strong coordination among public institutions, private actors, development partners and civil society. Align all programme activities with national development strategies, sectoral policies and international commitments for coherence and synergy.

viii. Evidence-Based Decision Making – Use robust data, real-time monitoring and periodic evaluations inform planning and implementation. Foster a culture of learning and continuous improvement throughout the programme.

ix. Integrated Value Chain Development - The FGP adopts a holistic approach from production to consumption. It addresses key bottlenecks across input systems, production, aggregation, processing, marketing and trade to ensure full value realisation.

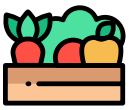
x. Resource Efficiency and Accountability - All interventions are designed to maximise the impact of public and private investment. Transparent systems for financial management, procurement and results tracking will ensure accountability and value for money.

Together, these guiding principles define the ethos of the Feed Ghana Programme and serve as a compass for all actors engaged in its planning, execution and evaluation.

2.3. Priority Commodities

The selection of priority agricultural value chains for development under the FGP is based on their critical role in achieving food and nutrition security, their significance in the diet of Ghanaians, their potential contribution to foreign exchange earnings and their job creation potential. These value chains include:

i. Grains and Legumes: Maize, Rice, Soybean, and Sorghum.



ii. Vegetables: Tomato, Onion and Pepper.

iii. Starchy Crops: Cassava, Plantain and Yam.

iv. Tree Crops: Mango, Oil Palm, Coconut, Cashew and Shea.

v. Livestock: Poultry, Ruminants (Cattle, Sheep and Goats) and Pigs.

Value chains not explicitly listed among the priority commodities will still receive targeted support through complementary projects and initiatives, ensuring broader sectoral development.

2.4. Justification for the Selection of the Commodity Value Chains

The selection of priority commodity value chains under the FGP was informed by a set of strategic considerations designed to ensure maximum impact on food security, employment, trade competitiveness and agricultural transformation. These considerations are outlined below:

i. Significance in the Ghanaian Diet: The selected commodities constitute the core of the Ghanaian diet. Their widespread consumption across diverse socio-economic and geographic segments underscores their centrality to national food security. Staples such as maize, rice, cassava, yam, and plantain, as well as key vegetables and animal proteins are fundamental to daily nutrition in both rural and urban households.

ii. Contribution to Food and Nutrition Security: The priority value chains include a diverse mix of cereals, legumes, vegetables, starchy crops, tree crops and livestock. This diversity is essential to achieving nutrition security by improving dietary diversity, reducing the cost of a healthy diet, reducing malnutrition and meeting the nutritional needs of different demographic groups. The selected commodities are aligned with national strategies aimed at reducing stunting, wasting, and other nutrition-related health burdens.

iii. Supply of Raw Materials for Agro-Industry: Several of the prioritised value chains — notably cassava, maize, soybeans, oil palm and cashew — serve as essential raw materials for agro-processing industries. Their development enhances domestic value addition, supports the growth of agro-enterprises and contributes to economic diversification.

iv. Export Potential and Foreign Exchange Earnings: Tree crops such as cashew, mango, coconut, and shea have strong export potential and are well-positioned to contribute to Ghana's non-traditional exports. Their promotion aligns with national export diversification goals and the opportunities presented by the African Continental Free Trade Area (AfCFTA), enabling Ghana to earn critical foreign exchange.

v. Import Substitution: High volumes of food imports, particularly rice, poultry and palm oil, create a significant trade imbalance and exposes the economy to global price fluctuations. The selected value chains have high potential to substitute imports by boosting domestic production, reducing foreign dependency and supporting national food sovereignty.

vi. Employment and Wealth Creation: The prioritised value chains have high labour intensity and potential to generate employment at scale — both on-farm and along post-production and marketing segments. By engaging youth and women, particularly in rural communities, the programme supports inclusive rural development and livelihoods.

vii. Climate Resilience and Environmental Sustainability: Crops such as cassava and sorghum are drought-tolerant and adaptable to Ghana's varied agro-ecological zones. Their inclusion supports resilience to climate shocks and enhances sustainability in food production, particularly in areas vulnerable to erratic rainfall and land degradation.

viii. Maturity and Scalability of Value Chains: Certain value chains, such as maize, poultry, and cashew, already exhibit a significant level of private sector participation, established infrastructure, and well-developed market networks. These conditions present a low-risk opportunity for rapid scaling, attracting investment and achieving quicker returns on intervention.

ix. Regional Balance: The selected value chains are geographically distributed across Ghana's agro-ecological zones, offering opportunities for balanced regional development. Prioritising commodities that thrive in different zones ensures broad-based growth, reduces regional disparities and stimulates local economic activity through job creation, infrastructure development and service provision.

Together, these factors provide a sound basis for prioritisation, ensuring that public and private investments under the FGP are directed toward value chains with the most significant potential for structural transformation, market integration, and sustainable development.

2.5. The Nine (9) Sub-Programmes of FGP

The Feed Ghana flagship initiative will be implemented through the following nine (9) sub-programmes. These include:

Sub-Programme
1

Crop Development: Aims to boost productivity in grains, legumes, vegetables and starchy crops using smart agriculture. Key interventions include improved seeds, mechanization, irrigation, storage and training to address low yields, high post-harvest losses and climate-related challenges.

Sub-Programme
2

Livestock Development: Aims to increase the production of livestock (poultry and ruminants). Key interventions include supply of improved breeds and use of artificial insemination.

Sub-Programme
3

Farmers' Service Centres (FSCs): A one-stop hub providing farmers with inputs, mechanization, extension services and market access. Designed to improve efficiency, reduce costs and enhance smallholder productivity through decentralized, integrated support.

Sub-Programme
4

Farm Bank Development: Develops structured agricultural zones with secure land access, shared infrastructure (irrigation, roads) and mechanization for youth and smallholders. Addresses land fragmentation by leasing and rehabilitating underutilized farmland.

Sub-Programme
5

Institutional Farming: Supports schools, prisons, security agencies and faith-based institutions in farming to enhance food supply and skills training. Provides inputs, infrastructure and technical assistance to overcome labour and expertise gaps.

Sub-Programme
6

Feed the Industry (Tree Crops Development): Focuses on cashew, coconut, oil palm and shea to boost industrial raw material supply. Interventions include the use of improved planting materials, processing upgrades, youth engagement and stricter product quality control for exports.

Sub-Programme
7

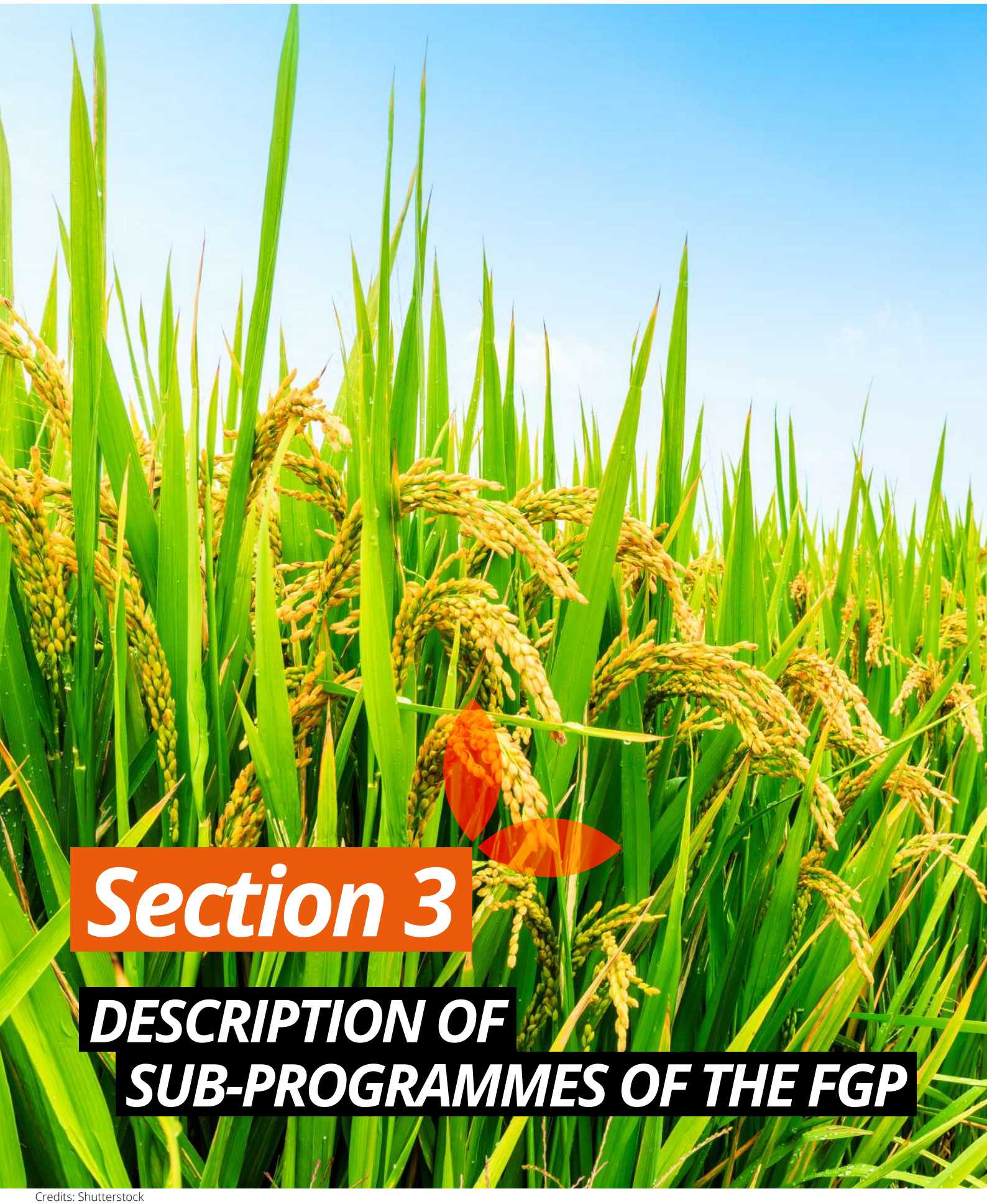
Agro-Production Enclaves and Irrigation for Wealth: Large-scale, integrated farming zones with irrigation, warehouses and processing facilities to attract private investment. Targets 100,000 ha across the country.

Sub-Programme
8

Innovative Agricultural Financing: Expands access to credit for farmers through insurance, concessional loans, risk-sharing schemes and increase bank lending from 4.7% to 10% of total credit by 2028. Aims to reduce financial exclusion, especially for women and smallholders.

Sub-Programme
9

Institutional Development and Management Research: Strengthens MoFA agencies (GIDA, VSD, TCDA, PPRSD, DAES) through recruitment, training, and restructuring and deepens working collaboration with Environmental Protection Authority (EPA) on effectively regulating agro-inputs. This will enhance irrigation management, veterinary services, extension service delivery and regulatory enforcement to support agricultural growth. Under this sub-programme, management research will also be undertaken to enhance efficiency and performance of the workforce within agri-food system.



Section 3

DESCRIPTION OF SUB-PROGRAMMES OF THE FGP

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The Feed Ghana Programme will be implemented through nine (9) sub-programmes. It will focus on modernizing agriculture through smart[4] interventions and processes. The programme will leverage Farmers' Service Centres (FSCs) as strategic fulcrums to drive productivity growth and operational efficiency across the agricultural value chains. It will utilize FSCs as a foundation to promote productivity and production. Strategic investment will be made in infrastructure to support the production, marketing and processing of selected crops and livestock. In addition, its implementation will be underpinned by innovative financing, institutional reforms and strong regulatory frameworks.

4 Leveraging on research and technology to optimise agriculture processes

3.1. Sub-Programme 1: Crop Development

Under this sub-programme, smart agriculture will be applied strategically in the production of selected crops to increase productivity and resilience. It has three (3) components – (i) cereals and legumes (ii) vegetables (*Yɛredua*) and (iii) starchy crops.

3.1.1. Component 1: Cereals and Legumes

Value chains prioritised under this component are maize, rice, sorghum and soybean. They are key food security staples and are used as raw materials for industrial production of alcoholic beverages, feed for livestock, and other products. Although the production of these crops has increased over the years, a significant demand gap remains. Currently, 38.5% (MoFA, 2024) of rice consumed in Ghana is sourced locally.

The FGP will promote these commodities through improved access to quality inputs including seeds, fertilizers, other agrochemicals, extension services, access to storage facilities and processing. An overview of the selected value chains, challenges and planned interventions is described as follows:

3.1.1.1. Overview of the Value Chains

Maize Value Chain: Maize is a vital staple crop in Ghana, accounting for approximately 61% of the country's total cereal production in 2024 (SRID, 2024). It is cultivated across all agro-ecological zones, with significant production clusters at Sissala East, Sissala West, Gushegu-Karaga, Techiman, Ejura Sekyedumasi, Nkoranza, Sekyere Afram Plains and Afram Plains. Maize, the most widely consumed cereal in Ghana, accounted for an estimated 2.7 million metric tons of domestic consumption in 2023, contributing over one-third of the country's total caloric intake (IFPRI, 2020). National production in 2023 was estimated at 3.5 million MT and projected to rise to 6.6 million MT by 2028 (MoFA, 2024), exceeding the country's expected demand by approximately 50%.

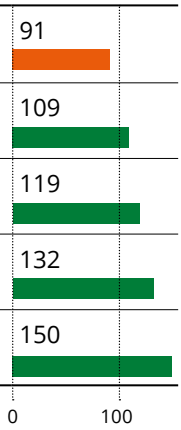
Although Ghana exceeded its self-sufficiency in maize by 14% in 2022 (MoFA, 2023), production in 2024 fell short of national demand by 9% (SRID, 2025) due to severe dry spells experienced in some of the major production clusters. Issues of availability and affordability persist, primarily due to inefficient distribution systems and unregulated cross-border exports to neighbouring countries. While the country is technically self-sufficient, addressing the underlying challenges of low productivity and high post-harvest losses (14-20%) is crucial for achieving competitive pricing, boosting surplus production for export and supporting the poultry industry. To

meet the growing demand for the poultry industry, yellow maize is imported to supplement domestic production, as the high cost of locally produced maize makes it relatively unaffordable. The FGP has outlined targeted interventions aimed at increasing maize production from 2025 to 2028 as indicated in the table 1.

Table 1: Production Targets for Maize (yellow and white) from 2025-2028

Years	Area (000 Ha)	Yield (MT/Ha)	Production (000 MT)	Net Production Available for Consumption (000 MT)	Total Demand (000 MT)	Deficit / Surplus (000 MT)	% Self Sufficiency
2024 (Baseline)*	1,268	2.60	3,293	2,641	2,916	(274)	91
2025	1,395	2.99	4,166	3,341	3,062	278	109
2026	1,451	3.29	4,766	3,823	3,199	623	119
2027	1,523	3.61	5,505	4,415	3,347	1,068	132
2028	1,629	4.05	6,598	5,291	3,516	1,775	150

Source: MoFA (2025) * Provisional



Rice Value Chain: Rice consumption in Ghana has increased significantly in recent years, driven by population growth, urbanization, and evolving consumer preferences. As a result, rice has become a key staple and an increasingly important crop in Ghana.

In 2023, the total national consumption of milled rice was estimated at 1.48 million MT, with a 33% increase in per capita consumption from 32.0 kg in 2017 to 45kg per annum in 2023. Similarly, domestic paddy rice production in 2023 doubled to 1.22 million MT from 0.61 million MT in 2017. The increase in production was largely due to an increase in the area under cultivation and minor yield increases, as indicated in Figure 1.

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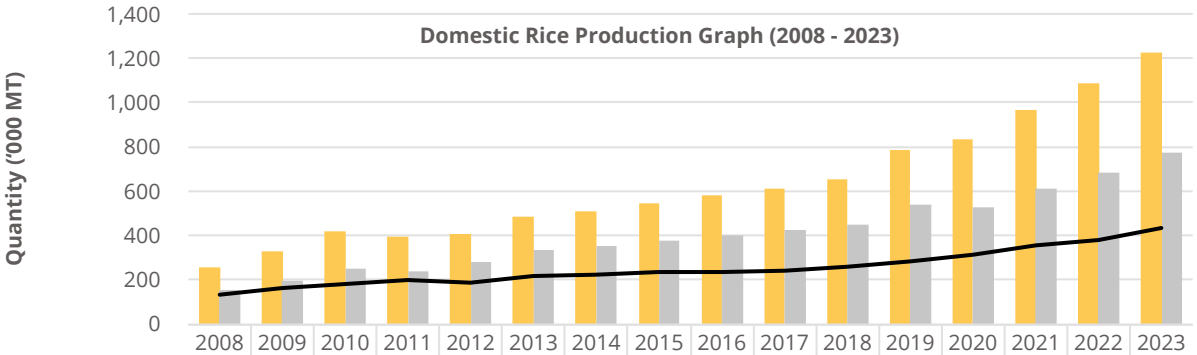
Figure 1: Trends in rice - Net Paddy Production and Area cultivated (2008 – 2023)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Paddy ('000 MT)	256	331	417	393	407	483	512	543	583	612	651	783	836	968	1,087	1,224
Milled ('000 MT)	153	199	250	236	281	333	353	375	402	422	449	541	527	610	685	771
Area ('000 Ha)	133	162	181	197	189	216	224	233	236	241	260	282	311	357	382	433

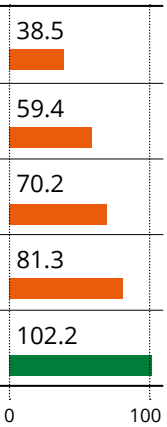
Source: MoFA, 2024

In 2023, the average farm yield for rice was estimated at 3.33 Mt/Ha. However, the potential yield for rice under optimal conditions is 6.0 Mt/Ha. This suggests a significant yield gap of 2.7 Mt/Ha, highlighting the opportunity for productivity improvement through enhanced practices, improved inputs, and better access to irrigation, mechanization and extension services. In table 2, the FGP will, by 2028, improve rice yields to 4.8Mt/ha.

Table 2: Production Targets[5] for Rice from 2025-2028

Years	Area (000 Ha)	Yield (MT/Ha)	Production (MT) (Paddy)	Available for Consumption (MT) (Paddy)	Available for Consumption (MT) (Milled)	Total Demand (MT)	Gap/ Surplus (MT)	% Self Sufficiency
2024 (Baseline)*	434,266	2.60	1,128,177	933,745	588,259	1,528,134	939,875	38.5
2025	477,693	3.70	1,767,463	1,485,146	935,642	1,573,978	638,336	59.4
2026	525,462	4.00	2,101,848	1,806,275	1,137,953	1,621,197	483,244	70.2
2027	578,008	4.20	2,427,634	2,088,632	1,357,611	1,669,833	312,222	81.3
2028	635,809	4.80	3,051,883	2,704,731	1,758,075	1,719,928	(38,147)	102.2

Source: MoFA (2025) * Provisional



5 Assumption: Available paddy for consumption has taken into account: 2.3% seed and 13% post-harvest losses. Milling recovery rate of 63% from 2024 to 2026 and 65% from 2027 onwards due to installation of modern and efficient mills.

Sorghum Value Chain: Sorghum is a significant cereal staple in Ghana. It is one of the most cultivated cereals in Ghana. Sorghum plays a crucial role in food security and income generation for households and is primarily grown in the northern regions and transitional areas of Ghana. The crop is highly versatile and resilient, able to withstand drought, high temperatures, and poor soil conditions.

Sorghum provides energy, protein and essential nutrients for humans. It's waste also serves as a vital ingredient in animal feed formulations and alternative feed sources. There are two primary varieties of sorghum produced in Ghana – red and white. The white variety (kapala and dorado) sorghum is in high demand for industrial purposes - substituting imported barley in the brewery industry and producing ethanol and sugar. Red variety (kadaga and framaida) is mainly used as a staple food and in the production of beverages such as pito. It also serves as fodder for livestock and used for various local food preparations.

In 2024, the total cropped area for sorghum was 239,466 ha with a production value of 431,409 MT (table 3). The national demand for both industrial and human consumption reached 507,070 MT indicating a self-sufficiency level of 72%. Notably, the production levels of the Kapala and Dorado varieties of sorghum, which are suitable for industrial processing do not meet the demand by industries.

The sorghum value chain comprises four categories of farmers who produce for specific markets as follows:

i. Smallholder farmers cultivating traditional low-yield red varieties for household consumption and local brewing;

ii. Smallholder farmers targeting the industrial brewery sector with higher-yield white sorghum, receiving support from aggregators and commercial farmers;

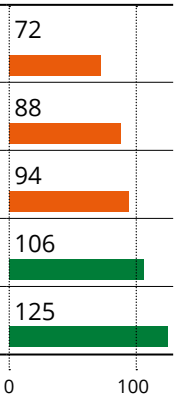
iii. Medium-scale farmers supplying the brewery industry; and

iv. Commercial farmers producing exclusively for industry.

Table 3: Production Targets for Sorghum (White and Red) from 2025 -2028

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	Available Consumption (MT)	Total Demand (MT)	Deficit / Surplus (MT)	% Self Sufficiency (%)
2024 (Baseline)*	239,466	1.80	431,409	507,070	530,582	(147,965)	72
2025	275,385	2.25	620,151	593,405	627,203	(77,191)	88
2026	316,693	2.48	784,491	694,439	737,193	(41,428)	94
2027	380,032	2.72	1,035,528	812,675	869,111	49,299	106
2028	475,040	3.05	1,449,740	951,042	1,030,053	255,721	125

Source: MoFA (2025) * Provisional



Soyabean Value Chain: Soyabeans have grown to become a significant cash crop and the third most produced grain legume, after groundnuts and cowpeas, by small-scale farmers. These farmers typically cultivate soyabeans on small plots of around 0.5 hectares, relying primarily on manual labour for production. The crop's ability to fix atmospheric nitrogen reduces the need for fertilizers, making it a more sustainable and cost-effective option. Cultivation has mainly been concentrated in the Guinea Savanna zones, which account for 90 percent of the soyabeans trade, with additional cultivation in the Coastal Savannah and Transition zones.

Domestic demand for soyabeans in Ghana is primarily driven by the poultry and aquaculture subsectors, where soybean cake and meal are key ingredients in feed production. The extracted soyabean oil is used in various ways: for consumption, as well as ingredient in paint production.

Household consumption of soyabean in Ghana is currently low, although local demand is increasing due to new processing methods and products such as soyabean milk, khebab, yoghurt and soyabean fortified baby food. The high nutritional value of soyabeans is widely recognized, suggesting a strong willingness among consumers to incorporate soyabean products into their daily diets. Soyabean-based foods form significant component of the vegan diet, which is expected to continue growing over the next couple of years.

As an industrial crop, soyabeans could become a significant traded commodity, aligning with Ghana's industrialisation strategy, which prioritises exports and promotes import substitution. The total value of annual soyabean exports increased from $15.39 million in 2022 to $33.1 million in 2023 (GEPA, 2023).

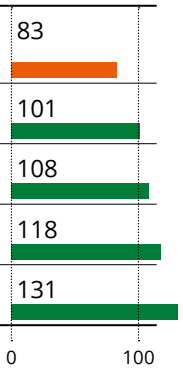
The average annual growth rates of production and area cultivated from 2018 to 2022 were 8.1% and 20%, respectively. This finding suggests that the increase in production has primarily been attributed to area expansion, with minimal improvement in yields (MoFA, 2024).

Despite the consistent increase in production of soyabean, the local processing sector, with an estimated annual installed capacity of approximately 200,000 MT operates at only 40% - 50% due to factors including outdated equipment and competing export demands. Currently there are 12 major companies with only two having solvent extraction capacity to produce quality soyabean meal for feed. As a result, Ghana imports about 120,000 MT of soyabean meal annually (valued at $47.9 million in 2023) to meet feed demand. This underscores an opportunity for expanded local processing and reduced import dependency. The FGP seeks to increase production (table 4), processing capacity and increase soyabean exports.

Table 4: Production Targets for Soyabean from 2025 -2028

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	National Demand (Mt)	Total Consumption (Mt)	Net Production (Mt)	Surplus/ Deficit (Mt)	% Self Sufficiency
2024 (Baseline)*	188,566	1.62	304,639	295,357	210,059	243,711	(51,646)	83
2025	216,851	1.94	420,402	334,327	216,615	336,321	1,994	101
2026	238,536	2.04	485,564	359,333	223,375	388,451	29,118	108
2027	267,160	2.16	576,461	391,756	230,347	461,169	69,413	118
2028	307,234	2.33	715,965	438,006	237,536	572,772	134,766	131

Source: MoFA (2025) * Provisional



3.1.1.2. Challenges Along the Cereals and Legumes Value Chains

The cereals and legumes value chains suffer from multiple challenges, from production, post-production to markets and require intervention to realize their full potential.

a. Production Challenges

i. **High Cost of Land Development**: Developing land for agricultural purposes is costly. For example, tree felling, levelling, bunding, of a hectare for rice cultivation ranges from GHS 25,000.00 to GHS 50,000.00 (MoFA, 2023) depending on the ecology. Most farmers, therefore, cannot afford such high costs, which accounts for the limited area expansion for production.

ii. **Low Adoption of Improved Inputs**: Generally, yields for most crops are below 60% of their potential, which is a result of underutilization of improved inputs. In the case of soybean production, it is characterized by low use of certified seeds, inoculants and fertilisers by farmers. Only 15-20% of soybean farmers use inoculants, and only 40% use the required fertilizers. This results in low yields, averaging 1.8 MT/Ha (51%) of the potential of 3.5 MT/Ha. With respect to maize, farmers achieve an average yield of 2.6 MT/ha (33%) of the potential yield of 8.0 MT/ha. The use of high-yielding and disease-tolerant seeds as well as quality fertilisers remains a challenge for the majority of farmers, mainly due to high costs and limited access. The current average yield of rice is approximately 3.34 MT/ha representing 56% of the achievable yield of 6.0 MT/ha (MoFA, 2024). In the case of sorghum, yields stand at 1.80 MT/ha, while soybean yields are 1.62 MT/ha, lower than the potential of 3 MT/ha and 2.3 MT/ha respectively. This gap is partly due to the high cost of agro-inputs and services.

iii. **Limited Production of Early-Generation and Certified Seeds**: This contributes to limited availability and access to certified seeds for farmers. Additionally, the poor maintenance of released varieties of seeds, especially rice is also a factor. Poor seed quality is partly caused by limited technical and logistical capacity for production, involving handling, inspection and certification. Currently, the use of certified rice seed is less than 50%. For maize, less than 10% of the demand for breeder and foundation seeds is currently met (MoFA, 2024). In the case of sorghum, there are no certified seeds for industrial varieties, as a result only 8,000 MT out of the 45,000 MT of industrial-grade sorghum required by the brewery industry is produced annually. For soyabean only 45% of cultivated area is planted with certified seeds, and the remaining planted with farmer-saved seeds.

iv. **Inadequate Irrigation and Poor Water Management**: The irrigation ecology, which provides the highest yield (average 5.5 MT/ha) for rice, accounts for less than 10% (about 40,000 ha) of the area cultivated each year. Limited maintenance of the existing public irrigation schemes has led to deterioration. Other crops such as maize, sorghum and soybeans, remain heavily dependent on rainfall, increasing their vulnerability to climate change and weather variability. In 2024, most crops suffered a yield loss of at least 20% due to dry spells in key production hubs.

v. **Threats From Pests and Diseases**: Fall armyworm causes 30–50% yield losses in maize, while aflatoxin contamination in cereals and legumes reduces marketability due to poor drying and storage practices.

vi. **Limited Mechanization**: The provision of timely, well-organised and commercially viable mechanised services is limited due to the high cost of agricultural machinery and equipment. Insufficient mechanisation services for land development, tillage, sowing, harvesting, etc. (such as power tillers, planters, and harvesters) limit yields and production levels. Currently, all the soybean varieties released in-country are not suited for mechanical harvesting due to their low first pod height (pods below 25 cm above ground) resulting in high harvesting losses.

vii. **Poor Adoption of Agronomic Practices**: Farmers generally fail to apply the recommended agronomic practices. This is particularly common with smallholder farmers and is largely due to limited training of farmers and other value chain actors on specific commodity GAPs.

b. Post-Production Challenges

i. **Post-harvest losses**: Post-harvest losses remain high, with maize losses ranging from 14–20% due to inadequate drying and storage facilities. Rice also experiences high postharvest losses primarily caused by insufficient drying

platforms and premature sales of improperly dry grain, further exacerbated by the limited availability of dryers and threshers.

ii. **Poor Processing quality**: Although there is sufficient processing capacity for rice, the quality of milled rice produced is generally low due to low moisture content of paddy rice at the time of milling, inadequate destoners, graders, aspirators, and colour sorters. There are also challenges with grading, handling and packaging. Existing soyabean processing facilities are inefficient, producing high-fat cake unsuitable for poultry feed due to a lack of modern technology of extraction. Additionally, there is no central processing facility located within the primary soyabean production zone, and transporting raw materials from major production centres increases the processing cost.

iii. **Insufficient storage infrastructure**: Appropriate storage facilities, such as temperature-controlled silos for rice are limited. Small-scale rice farmers also experience high post-harvest losses (about 13%), especially during harvests, due to the limited availability of drying platforms or patios. As a result, some farmers are compelled to sell off their produce immediately after harvest at low prices. Soybean storage capacity is even more dire, with only 5% of total facilities in the northern regions dedicated to soybeans (MoFA, 2024).

iv. **Low Yields and High Prices**: One of the persistent challenges facing Ghana's agricultural value chains is the low yield levels experienced by smallholder farmers. These suboptimal productivity levels contribute to high producer prices and high raw material cost for processors. For example, local rice processors are forced to purchase paddy at high prices due to low yields. This makes them uncompetitive with imported rice.

v. **Poor Soil Management**: Poor soil management remains one of the most significant constraints to sustainable agricultural productivity in Ghana. Across many farming communities, unsustainable land use practices continue to degrade the very foundation of crop production—the soil. Key contributors to soil degradation include continuous cropping without adequate nutrient replenishment, limited use of organic matter such as compost or manure, minimal crop rotation, and the excessive use of chemical fertilizers and pesticides without proper agronomic guidance. These practices accelerate nutrient depletion, reduce soil organic content and diminish soil structure and biodiversity.

Compounding the problem are harmful land-use practices, including indiscriminate bush burning, widespread deforestation and poorly managed irrigation systems. Unsustainable land use practices does not only strip the land of protective vegetation cover but also intensify erosion, cause soil compaction and disrupt the natural water balance.

c. Policy and Institutional Challenges

i. **Weak Enforcement of Import Regulation**s: The weak enforcement of import regulations in Ghana's agriculture sector allows the entry of poor-quality inputs and unsafe food imports, which reduces yields and compromises food safety respectively. Inadequate oversight also enables unfair competition from subsidized imports. Strengthening regulation is crucial for enhancing productivity, ensuring consumer protection, and supporting local producers in achieving agricultural transformation and food security.

ii. **Weak Research and Extension Systems**: The weak systems delay the rollout of improved agricultural technologies. In spite of advancement of research, there continue to be limited availability of certified seeds for industrial sorghum and drought resistance maize varieties.

Unsustainable land use *practices does not only strip the land of protective vegetation cover but also intensify erosion, cause soil compaction and disrupt the natural water balance.*

Credits: Freepik

3.1.1.3. Proposed Interventions for Cereals and Legumes

i. **Enhanced Access to High-Quality Agro Inputs**: To boost agricultural productivity under the Feed Ghana Programme (FGP), the Ministry of Food and Agriculture (MoFA) will support the supply of certified seeds, fertilizers, inoculants, and pesticides. Farmers will access these inputs on credit bases from 2026 onwards.

Between 2025 and 2028, the FGP targets the distribution of a total of 214,692 metric tonnes of certified seeds, 2,130,000 metric tonnes of fertilizers, and 3,645,000 litres of pesticides across priority crops which are maize, rice, soybean, and sorghum. These inputs will support the cultivation of an estimated 7,979,000 hectares of farmland as indicated in Table 5.

Table 5:Quantities of Agro-inputs Required from the Immediate to Long Term

Commodity	Items	Immediate (2025)	Short Term (2026)	Medium Term (2027)	Long Term (2028)
Maize	Improved seeds (MT)	5,000	7,500	9,000	14,000
	Fertilizers ('000 MT)	122	150	180	280
	Pesticides ('000 Litres)	810	975	1,140	1,920
	Area ('000 Ha)	1,315	1,338	1,360	1,512
	Expected Outputs ('000 MT)	3,522	4,147	4,557	5,896
Rice	Improved seeds ('000 MT)	47.8	52.5	43.4	47.7
	Fertilizers ('000 MT)	191.1	210.2	231.2	254.3
	Pesticides ('000 Litres)	8,400	9,200	10,100	11,100
	Area* ('000 Ha)	478	525	578	636
	Expected Outputs ('000 MT)	1,767	2,102	2,428	3,052
Sorghum	Improved seeds (MT)	300	350	400	450
	Fertilizers ('000 MT)	61	75	90	140
	Expected Outputs ('000 MT)	51.0	59.5	68.0	76.5
Soyabean	Improved Seeds (MT)	3,469.61	4,770.72	6,411.85	8,602.56
	Phosphate Fertilizers (Mt)	21,685.09	29,816.99	40,074.04	53,766.00
	Inoculants (kg)	2,168.51	2,981.69	4,007.40	5,376.60
	Expected Output	336,321.00	388,451.00	461,169.00	572,772.00

* Area for mechanization

ii. **Regular Soil Testing and Promotion of Specific Fertilizer Blends**: Improving soil fertility management is essential for boosting crop productivity and ensuring long-term sustainability in Ghana's agriculture. One of the most effective strategies is the implementation of regular soil testing to determine the nutrient composition and needs of different soils. This allows for the development and promotion of site and crop-specific fertilizer blends tailored to the unique conditions of each agro-ecological zone. Under the FGP, MoFA will collaborate with the National Agricultural Research Systems (NARS) and private sector to promote the adoption of fertilizer blends and soil testing.

iii. **Support for Research and production of breeder, foundation, and hybrid seeds**: As part of the FGP, significant investments will be made to strengthen the capacity of research institutions in the development and dissemination of improved seed varieties. These efforts are central to enhancing productivity and building resilience within the grain value chains.

Between 2025 and 2028, the programme targets the production of 39 metric tons (MT) of breeder rice seeds, which will be used to generate 1,928 MT of foundation seeds and 111,650 MT of certified seeds for distribution to farmers.

In addition, dedicated funding will be provided to accelerate research focused on developing climate-resilient, pest- and bird-tolerant, and aflatoxin-free seed varieties across key grain crops. For sorghum, the programme aims to increase the availability of newly released varieties and ensure the multiplication of early-generation and certified seeds of industrial types to support large-scale certified seed production.

For soybean, the FGP will promote the development of high-stem varieties that are compatible with mechanical harvesting. Over the implementation period, foundation seed production for soybean is expected to increase fivefold, significantly increasing access to improved planting material.

iv. **Construction and Refurbishment of Storage Infrastructure**: Interested processors and agribusinesses (millers) in the rice value chain will be supported with long-term affordable credit for temperature-regulated silos in major rice-growing districts. Post-harvest infrastructure will be expanded to reduce losses and improve grain quality. Rice silo capacity targeted for 2025 is 50,000 MT and will increase to 200,000 MT by 2028 across targeted regions. For maize, existing warehouses in key production zones will be upgraded. In sorghum-growing areas, ten new warehouses will be constructed, each with a 1,000 MT capacity. Additionally, the programme will support the acquisition of drying machines, moisture meters and aflatoxin testing equipment for warehouses. In major soybean-producing regions, 125,000 metric tons of new warehouse capacity will be developed to enhance storage.

v. **Develop new and rehabilitate existing irrigation schemes to increase irrigable area**: A potential area of 260,000 ha identified in various districts will be developed. The proposed intervention would ensure an increase in the area under rice production. Appropriate water harvesting structures will be constructed to augment the existing ones. Broken-down schemes will also be rehabilitated and expanded. The irrigation schemes and inland low land valley indicated in Table 6 are prioritised for development, rehabilitation and expansion under the programme.

Table 6: Identified Schemes to be Rehabilitate and Expanded

Year	Action	Location	Irrigated Area (ha)
2025	Rehabilitation and Expansion	Weta Ashiaman Okyereko New Longoro Aveyime Kpolu Bontanga Anum Valley Vea Dawhenya	880 - 960 80 - 155 81 - 111 190 - 224 56 - 120 65 - 100 495 - 570 58 - 140 10 - 850 200 – 300
	Development (Studies, design & construction) of 100,000 ha	Bono East, Ashanti, Northern, Eastern, Ahafo, Oti, Savannah, Central, Volta, Upper East, Upper West, North-East Regions	10,000
2026 – 2027	Rehabilitation and Expansion	Buipe Sabari Mongneigu Demon	0 - 110 200 - 220 80 - 90 60 – 70
	Development (Studies, design & construction) of 100,000 ha	Bono, Bono East, Western North, Ashanti, Western, Northern, Eastern, Greater Accra, North-East Regions	10,000
2028	Development (Studies, design & construction) of 60,000 ha	All 16 Regions	6,000

Source: MoFA, 2024

vi. **Land development for grain cultivation**: For soybeans, areas identified in the Upper West, Savanna, Oti, Northern, and Bono East regions will be developed to expand the area under production in the immediate to long term. This will be undertaken under the Farm Banks initiative to encourage youth into farming and expand grain production.

vii. **Improve Access to Mechanization Services through Farmers' Service Centres**: Mechanization support will cover all four crops, with rice farmers receiving particular attention. In 2025, mechanization services targeted to cover 478,000 ha of rice farms, expanding to 635,809 ha by 2028. Maize and soyabean farmers will gain access to mechanization services through the Farmers' Service Centres.

viii. **Extension Services Delivery and Capacity Building**: MoFA will invest in capacity building by training farmers, processors, and AEAs on GAPs, climate-smart technologies, integrated pest management and value addition of specific value chains, to reduce postharvest losses and enhance climate resilience. Demonstrations, ToTs, farmer field schools, and adaptive trials will be established to promote good agronomic practices in commodity growing areas.

ix. **Market Linkages and Policy Support**: To ensure a reliable market for farmers and stabilize prices, the NAFCO will be adequately resourced to purchase produce from anchor[6] farmers. This intervention will reduce postharvest losses, enhance farmer income security, and strengthen the linkage between production and markets. Additionally, the NAFCO operations will contribute to national food reserves and improve the efficiency of the agricultural value chain. To promote demand for locally produced and processed rice in Ghana, the import quota system will be strictly enforced, requiring traders to shift more to purchasing Ghana rice, progressively reducing import. Market promotion activities for domestic rice will include at least 10 annual events showcasing Ghanaian rice.

Credits: Freepik

6 Anchor farmer- is a large-scale commercial farmer with a number of out-growers producing under his technical supervision and support.

3.1.2. Component 2: Vegetable Development Project (Yɛredua)

Ghana's high dependence on imported vegetables, especially tomato, pepper and onion, threatens food security, price stability and economic resilience. In 2024, Ghana's self-sufficiency levels for these vegetables remained relatively low, with tomatoes at 38%, peppers at 45%, and onions at 29%.

Local vegetable production is primarily by smallholder farmers, who often utilise rudimentary technology and employ poor agronomic practices. The average land size of smallholder farmers ranges between 1 and 3 acres, with actual yields significantly lower than the potential yields. Vegetable production is highly seasonal and concentrated in specific regions such as Bono, Bono East, Ahafo, Ashanti, Volta, Oti, Eastern, Greater Accra, and Upper East regions.

The Ministry is rolling out the **"YƐREDUA" Project**, under the FGP which is aimed at building a competitive and sustainable vegetable sector. The initiative focuses on boosting domestic production, enhancing market systems, and equipping farmers with the necessary support to increase productivity, improve incomes, and strengthen national food security.

3.1.2.1. Overview of the Vegetable Value Chain

Vegetables, including tomatoes, peppers, and onions, are an indispensable part of the daily diet of Ghanaians and account for a significant portion of vegetable expenditures in households. The demand for these vegetables remains persistently high throughout the year, consistently exceeding domestic production levels.

The national demand for tomatoes is estimated at 1.3 million MT, more than 2.5 times the local net production of 504,592 MT. Onion demand stands at 522,188 MT, which is 3.4 times the local production of 153,087 MT. For pepper, demand reaches 327,680 MT- more than double the local production of 147,704 MT. These significant gaps underscore the urgent need to boost local production and reduce reliance on imports.

Consequently, Ghana relies heavily on imports to supplement national production. According to the Ghana National Tomato Traders and Transporters Association (GNTTTA), more than 108,000 MT valued at approximately GHS 1 billion in 2022 – 2023 were imported from Burkina Faso. Additionally, substantial vegetables, including onions, were imported mainly from the Sahelian countries (including Niger, Mali etc), to augment demand, despite Ghana's comparative agroecological advantage.

3.1.2.2. Challenges in the Vegetable Sub-Sector

a. General Challenges

i. **Limited availability and adoption of improved seeds, specialised fertilisers and agro chemicals:** Majority of farmers utilise poor practices in managing their vegetable fields. Despite the availability of high-yielding improved seed varieties, a significant number of farmers continue to rely on farmer-saved seeds often adulterated. Low utilization of specialized fertilizers and agro chemicals contribute to the consistent low yields.

ii. **Limited application of agronomic protocols:** Farmers generally exhibit a low adoption rate of improved technologies, leading to low yields. This is a result of ineffective technology dissemination approaches and the high cost of technology adoption.

ii. **Inadequate irrigation infrastructure hindering year-round production**: The over-reliance on rainfall to produce vegetables, stemming from inadequate irrigation systems available to farmers, renders production highly vulnerable to erratic rainfall patterns induced by climate change. Consequently, this dependency limits the number of production cycles annually and significantly impacts vegetable supply, particularly during the dry season.

b. Specific Commodity Challenges

Tomato value Chain

i. **Unavailability of suitable varieties for processing**: A key challenge in developing the tomato processing industry is the unavailability of varieties with the required mesocarp level for processing. The low mesocarp of local tomatoes means lower paste and puree output after processing, reducing their economic viability for processing companies. Consequently, these companies are compelled to import large volumes of tomatoes with the desired high brix content, negatively impacting the growth and competitiveness of the local processing industry.

ii. **Price fluctuations**: Tomato prices in Ghana experience significant volatility throughout the year, due to seasonal variations in production mainly caused by over reliance on rainfall, climate variability and limited irrigation infrastructure. For instance, in the 2023-2024 farming season, the price of a 130kg crate which sold at GHS 700 during the rainy season was sold at GHS 3,500 during the dry season.

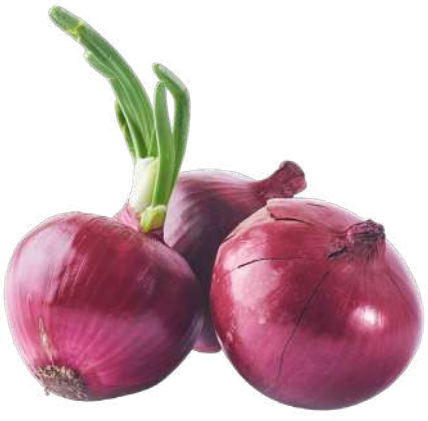
iii. **Limited use of Protected Cultivation Technologies**: The limited adoption of protected production technologies among tomato farmers is caused by unsuitable greenhouse designs that are not adaptable to local climates, as well as the high initial investment required for these technologies.

iv. **Limited Supply and Use of Specialised Fertilisers and Agrochemicals**: There is limited access to specialised fertilizers and agrochemicals formulated specifically for tomato production. The dominance of low-quality inputs in the market further discourages adoption, leading to suboptimal yield and poor crop health. In table 7, the FGP aims to increase tomato production by about 3 times the 2024 production level and increase yield from about 10MT/ha to 18MT/ha by 2028.

Table 7: Targeted Production Levels of Priority Vegetables -Tomato (2025-2028)

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	Net Production	National Demand	Surplus/ Deficit (Mt)	Self-Sufficiency (%)
2024 (Baseline)*	71,370	9.59	684,192	504,592	1,310,721	(806,129)	38
2025	78,507	10.55	827,873	610,556	1,338,248	(727,692)	46
2026	86,358	12.65	1,092,792	805,934	1,366,354	(560,420)	59
2027	99,312	15.19	1,508,053	1,112,189	1,395,053	(282,864)	80
2028	119,174	18.22	2,171,596	1,601,552	1,424,358	177,194	108

Source: MoFA (2025) * Provisional



Onion

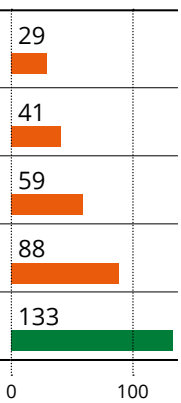
i. **Lack of suitable varieties for cultivation:** Onion production in Ghana has struggled to achieve its full potential, primarily due to the failure to identify and promote varieties that are well-suited to the country's diverse agro-climatic conditions. Many of the varieties currently cultivated are poorly adapted, resulting in low yields, high post-harvest losses, and low competitiveness. Without targeted research and varietal trials to match specific agro-ecological zones, onion farmers will continue to experience low productivity and poor quality of produce.

ii. **High Post harvest Losses**: This is attributed to a lack of proper drying and curing in well-ventilated areas. The limited knowledge of traditional storage methods contributes to high post-harvest losses, reaching 70% in some instances. The absence of appropriate storage infrastructure compels farmers to sell immediately after harvest at low prices, resulting in low returns on investment.

Table 8: Targeted Production Levels of Priority Vegetables - Onion

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	Net Production	National Demand	Surplus/ Deficit (Mt)	Self-Sufficiency (%)
2024 (Baseline)*	11,549.45	20.78	239,947.91	153,086.77	522,188.35	(369,101.58)	29
2025	13,859.34	24.93	345,524.99	220,444.94	535,166.45	(314,721.51)	41
2026	16,908.4	30.17	510,063.99	325,420.82	549,552.78	(224,131.96)	59
2027	21,135.49	37.1	784,223.38	500,334.52	566,365.98	(66,031.47)	88
2028	26,419.37	46.38	1,225,349.03	781,772.68	586,758.67	195,014.01	133

Source: MoFA (2025) * Provisional



In table 8, the FGP aims to increase onion production by about 5 times the 2024 production level and increase yield from about 21MT/ha to 46MT/ha by 2028.

Pepper

i. **Low level compliance with export standards and certification**: Pepper farmers and exporters have limited access to the highly profitable market due to their inability to meet stringent international standards and certifications requirement.

ii. **Susceptibility to Pests and Diseases**: Pepper farmers are confronted with pests and diseases that affect their production, leading to substantial yield losses and low quality. This often results in failure of the produce to meet the rigorous sanitary and phytosanitary requirements demanded by the international markets, and so severely limits access to the lucrative export market.

iii. **Low Varietal Diversity in Pepper Seed Production**: Only two of the seed varieties of peppers exported have their seeds produced domestically with the rest being imported. This creates import dependency and risk seed security to consistently meet export demands.

The FGP aims to increase pepper production from 214TMT in the 2024 production level to 658TMT and increase yield from about 11MT/ha to 22MT/ha by 2028 (table 9).

Table 9: Targeted Production Levels of Priority Vegetables - Pepper

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	Net Production	National Demand	Surplus/ Deficit (Mt)	Self-Sufficiency (%)
2024 (Baseline)*	19,023	11.25	214,064.13	147,704.25	327,680.20	(179,975.95)	45
2025	20,925	12.94	270,791.13	186,845.88	334,562.06	(147,716.19)	56
2026	23,436	15.14	354,844.69	244,842.84	341,588.73	(96,745.89)	72
2027	26,248	18.17	476,911.27	329,068.77	348,763.35	(19,694.58)	94
2028	30,186	21.80	658,137.55	454,114.91	356,089.27	98,025.64	128

Source: MoFA (2025) * Provisional

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3.1.2.3. Ongoing Initiatives in the Vegetable Sub-Sector

The FGP will build on these programmes, expanding its coverage and introducing new interventions to scale up vegetable production.

i. **Tomato Intensification Programme**: Under the West Africa Food System Resilience Programme (FSRP), MoFA launched the Tomato Intensification Programme in June 2023, targeting some key tomato production districts nationwide. The initiative is supported by the Norwegian government. It aims to enhance local vegetable production during the dry season, thereby addressing seasonal shortages and price fluctuations. As part of this programme, 1,500 Tomato farmers have received production inputs, including seeds, agrochemicals, and specialised fertilisers, along with training, to help increase yields from the average of 10 MT/ha to about 20 MT/ha.

ii. **Release of Improved Seed Varieties**: MoFA in collaboration with the Council for Scientific and Industrial Research's Crops Research Institute (CSIR-CRI) and the West Africa Centre for Crop Improvement (WACCI) of the University of Ghana, is developing climate-resilient tomato seed varieties. These efforts ensure that farmers can access high-quality seeds, thereby enhancing yields and resilience against pests and diseases.

iii. **Mainstreaming Market-Oriented Agriculture**: Through the Ghana Smallholder Horticulture Empowerment and Promotion (G-SHEP) project. The Ministry of Food and Agriculture (MoFA) and Japan International Cooperation Agency (JICA) are mainstreaming the SHEP approach to make Ghana's agricultural extension service system more market-oriented to improve the livelihoods of smallholder vegetable farmers.

iv. **HAPPY Programme**: Through the Harnessing Agricultural Productivity and Prosperity for Youth (HAPPY) programme, the MoFA has partnered with Agri-Impact Limited and the National Service Authority (NSA) to boost vegetable production across the country. This collaboration aims to establish nursery enterprises and provide technical support to young farmers.

The FGP will build on these programmes, expanding its coverage and introducing new interventions to scale up vegetable production.

3.1.2.4. Interventions for the Vegetable Sub-Sector

i. **Land Development for Vegetable Production (Vegetable Enclaves)**: Under the Yeredua programme, exclusive enclaves for commercial large-scale vegetable farming will be designated to ensure optimal utilization of arable land. Infrastructure, such as storage facilities, access roads, and energy, will be provided in these enclaves to make them attractive to investors. Smallholder

farmers will be encouraged to form cooperatives and participate in organised group farming with anchor farmers. Irrigation schemes will be established in major vegetable-producing areas/clusters (including boreholes, pumping machines, and rehabilitation of existing schemes).

ii. **Upscale the Tomato Intensification Programme**: Building on the success of the Tomato Intensification Programme under the West Africa Food System Resilience Programme (FSRP), the Ministry, under the FGP, will upscale this impactful intervention nationwide. It will leverage the proven model of providing essential production inputs, including improved seeds, specialised fertilisers, and agrochemicals, as well as training in GAPs. Support for dry-season tomato production will be directed explicitly towards production clusters identified as having suitable climatic conditions for successful cultivation. Over 3,500 tomato farmers are targeted. This will significantly increase local vegetable production, mitigate seasonal shortages and price volatility, fostering greater resilience within Ghana's food system.

iii. **Investment in Mechanized Vegetable Production and Value Addition Initiatives:** The government will complete 27 aggregation centres, 12 vegetable packhouses and cold storage facilities initiated to minimise post-harvest losses. Farmers will be equipped with modern farming machinery, including seed drills, mechanical harvesters, and irrigation systems to boost productivity. Agribusinesses will be supported to invest in processing facilities for value-added products, such as tomato paste, chilli sauce, as well as drying systems for peppers, and curing spaces for onions and onion powder production. The Ministry will also promote cottage processing by providing training and facilitating access to requisite equipment to households to enhance value addition and reduce post-harvest losses.

iv. **Enhance Investment in Vegetable Research and Innovation**: Under the programme, there will be investment in the multiplication of early-generation seeds and certified seeds of the five released tomato varieties. Support will be provided for research to develop pest-resistant and high-yield vegetable varieties tailored to local conditions. Additionally, innovative farming technologies, such as drone monitoring and soil health sensors will be introduced to optimize production. Again, support will be given to farmer-led innovations through grants for piloting new methods and scaling suitable technologies.

v. **Technology Transfer and Dissemination**: Under this programme, Climate smart villages will be established and used for agriculture technology dissemination and transfer through farmer field schools, demonstrations and adaptive trials. This will be done through the National Agricultural Extension System in collaboration with research institutions, academia and farmer cooperatives.

vi. **Incentives to Promote Backwards Integration Policy**: To ensure effective private sector participation, policy incentives such as input subsidies, commodity pricing, and other investment incentives will be used to promote Backwards Integration (BIP) especially for tomato production. The government will offer incentives to private investors. Companies in the vegetable processing sector will be encouraged to source vegetables locally. The government will facilitate partnerships between private investors and farmer cooperatives to enhance value chain linkages in the vegetable sector.

vii. **Promote and expand the area under protected cultivation (e.g., greenhouses, shade houses, etc.)**: Building on the greenhouse villages established by MoFA, the government will provide incentives and training for farmers to adopt greenhouse farming and protected cultivation, thereby enhancing vegetable yields and mitigating the adverse effects of climate variability.

viii. **Develop a National Women and Youth in Vegetable Project**: This will specifically prioritize youth participation in vegetable farming and agribusiness. The government will train young entrepreneurs in seed production techniques and certification processes. Additionally, start-up grants and loans will be provided for youth-led production and other enterprises. Additionally, incubation hubs will be established and training provided on value addition, focusing on practical skills and business management.

ix. **Build Technical and Managerial Capacities of Agricultural Officers**: Agricultural officers and farmers' capacities will be built using various market-oriented approaches to enhance vegetable production. This will enhance their farm management and value chain development skills. Agricultural officers with the requisite expertise will be deployed to regions with high vegetable production potential to maximize impact.

x. **Regulatory support for Export Markets**: The government will provide technical support to empower farmers with the knowledge and skills required to meet stringent international sanitary and phytosanitary standards. This initiative will enhance the competitiveness of Ghanaian agricultural products in the export market, ultimately boosting the sector's contribution to the national economy.

xi. **Promote home, school and community gardening**: The Y3redua initiative will also focus on promoting home, school and community gardening through the supply of vegetable inputs and provision of technical support to these households and institutions. This will augment all year supply of vegetable to improve nutritional needs.

3.1.3. Component 3: Starchy Crops

Starchy staples, such as yam, plantain and cassava are essential foods commonly consumed in most households. Though Ghana is self-sufficient in these commodities, the FGP aims to increase production to feed agro-industry and meet export demand. This will be accomplished through strategic investments in research for the development of industrial-grade varieties and new products. It will also support local manufacture of improved machinery and equipment.

These crops form a significant portion of the national diet and provide substantial income for smallholder farmers. Despite their widespread cultivation, challenges such as low productivity, post-harvest losses, and limited value addition continue to constrain their full economic potential. Outlined under this component are the overview of the selected value chains, challenges and planned interventions.

3.1.3.1. Overview of the Starchy Crops

Cassava Value Chain: Cassava is one of the most widely cultivated crops, grown by approximately 90% of rural households and smallholder farmers, typically on holdings of up to 2 ha. There are also large-scale farmers with holdings above 50 Ha cultivating for industrial purposes. It has the highest volume of production among the starchy staples and is produced in all the regions except Upper East. Ghana ranks third in West Africa and fourth globally in cassava production, contributing about 7.8% of global output, with 26 million MT harvested from nearly 1.1 million Ha in 2022 (Tridge, 2022; FAO, 2022).

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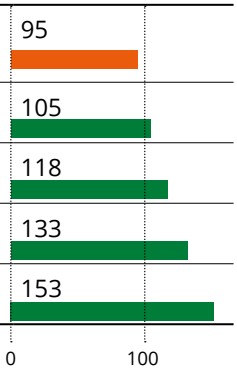
Over the past decade (2013–2023), cassava production has shown a steady upward trend, driven by both yield improvements and expansion in cultivated area. This is mainly due to several key interventions, such as the Presidential Special Initiative on Cassava (PSIC, 2001 - 2007), the Roots and Tuber Improvement and Marketing Programme (RTIMP, 2007 - 2014), and the West Africa Agricultural Productivity Programme (WAAPP, 2008 - 2019). These initiatives have led to the release of 30 improved cassava varieties, specifically tailored for both domestic consumption and industrial processing. The production targets for cassava are indicated in Table 10.

Table 10: Production Targets for Cassava

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	Net Production	Total Consumption	Surplus/ Deficit (Mt)	Self-Sufficiency (%)
2024 (Baseline)*	1,165,705	24.48	28,532,606.78	21,827,444	22,952,724	(1,125,280)	95
2025	1,282,275	25.95	33,269,019.50	25,450,800	24,262,177	1,188,623	105
2026	1,423,326	28.02	39,882,900.58	30,510,419	25,954,729	4,555,690	118
2027	1,608,358	30.26	48,673,091.87	37,234,915	28,090,308	9,144,607	133
2028	1,849,612	33.89	62,690,942.33	47,958,571	31,279,348	16,679,223	153

Source: MoFA (2025) * Provisional



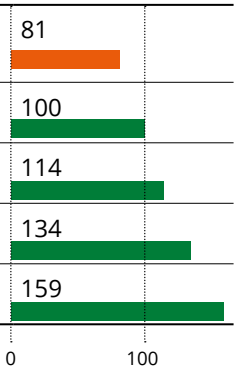
Yam Value Chain: Yam is a major staple crop in Ghana, with about 95% of national production concentrated in regions such as Bono East, Northern, Upper West, Savannah, and Ashanti. In 2024, Ghana cultivated 603,502 Ha of yam, yielding 18.91 MT/ha to produce 11.41[7] million MT, surpassing the national requirement of 9.21 million MT (MoFA, 2024). Key producing areas include, Afram Plains, Sene West, East Gonja, Atebubu, Bimbila, Kpasa, Nkwanta North, Kpandai, Dambai, Techiman, Ejura Sekyedumase, Atebubu, and Zabzugu.

Ghana is currently the second-largest producer of yams globally. Yam exports reached a record of $48 million in 2022, accounting for 24% of the value of global yam exports (GEPA). – Recognising yams' export potential, the FGP has prioritised the crop for support through the promotion of seven high-yielding, improved varieties developed by CSIR-CRI and SARI. The programme aims to help achieve a self-sufficiency level of 159% (16.17 million MT) by 2028, contributing to food security and agro-industrial development (table 11).

Table 11: Production Targets for Yam

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	Net Production	Total Consumption	Surplus/ Deficit (Mt)	Self-Sufficiency (%)
2024 (Baseline)*	603,502	18.91	11,412,659.56	7,418,229	9,211,551	(1,793,323)	81
2025	663,853	21.75	14,437,014.35	9,384,059	9,404,994	(20,935)	100
2026	716,961	23.70	16,995,253.29	11,046,915	9,672,244	1,374,671	114
2027	788,657	25.84	20,377,308.70	13,245,251	9,912,073	3,333,178	134
2028	883,296	28.16	24,876,618.46	16,169,802	10,157,708	6,012,094	159

Source: MoFA (2025) * Provisional



7 11.41 Million MT represents gross production for 2024.

Plantain Value Chain: Plantain is a key staple crop in Ghana, ranking third after cassava and yam, and serving as a significant source of calories across West Africa. With a national consumption requirement of 4.38 million MT, based on 132.4 kg per capita annually; Ghana is the second-largest producer in Africa, after the Democratic Republic of Congo. In 2024, Ghana produced an estimated 7.2 million MT of plantain at an average yield of 14.51 MT/ha, representing 72% of its potential yield. This output exceeds domestic demand, achieving a self-sufficiency level of 117%. However, the country faces seasonal gluts between September and February, leading to price drops and high postharvest losses due to poor handling and limited storage capacity. The FGP aims to address these challenges by promoting processing and export, targeting a self-sufficiency level of 158% (table 12).

Table 12: Production Targets for Plantain

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	Net Production	Total Consumption	Surplus/ Deficit (Mt)	Self-Sufficiency (%)
2024 (Baseline)*	497,570	14.51	7,219,061.18	5,414,296	4,614,695	799,601	117
2025	522,448	15.23	7,959,014.95	5,969,261	4,711,603	1,257,658	127
2026	548,571	16.00	8,774,813.98	6,581,110	4,810,547	1,770,563	137
2027	575,999	16.80	9,674,232.41	7,255,674	4,911,568	2,344,106	148
2028	604,799	17.64	10,665,841.23	7,999,381	5,060,113	2,939,268	158

Source: MoFA (2025) * Provisional

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3.1.3.2. Challenges For Starchy Crops

a. Production Challenges:

i. **Limited Access and Poor Management of Certified Planting Materials**: Poor handling and limited availability of certified planting materials undermine crop performance and sector growth. Low farmer adoption, due to poor access and repeated re-use of planting materials leads to disease buildup and declining yields. Less than 10% of cassava and other vegetatively propagated planting materials are certified, which results in reduced productivity and competitiveness in the local and export markets.

ii. **Limited Access to Mechanisation**: Most yam and cassava farmers have limited access to the requisite mechanization equipment and machinery, such as tractors, planters, and harvesters. This results in over-reliance on manual labour for key farming activities. Consequently, productivity remains low while labour costs are high.

iii. **Poor Adoption of Good Agronomic Practices (GAPs)**: Limited compliance with good agricultural practices results in lower yields, poor-quality produce, and increased vulnerability to pests and diseases. This hampers adherence to export market phytosanitary standards. In 2017, about 2,641 MT of yams were rejected due to pest infestation, damage, and regulatory non-compliance.

b. Post-production Challenges

i. **Post-Harvest Infrastructure**: The lack of adequate storage infrastructure and modern post-harvest technologies, such as Modified Atmosphere Packaging (MAP), significantly contributes to high losses, especially for perishable staple crops. Without proper post-harvest infrastructure to hold before processing, these crops quickly deteriorate, resulting in reduced shelf life, quality, and market value. Poor handling practices exacerbate the problem, resulting in further spoilage and financial losses for farmers and traders.

ii. **Limited Value Addition**: Despite the potential for value-added products such as fufu flour, starch, ethanol, High Quality Cassava Flour (HQCF), yam and plantain chips/flour, processing is very limited, with frozen cut plantain and yam processing capacity non-existent. This leads to post-harvest losses, particularly during peak seasons. The lack of processing infrastructure also discourages investor interest.

It is also important to underscore that consumer preference for fresh produce is a limiting factor for value addition. Most households prefer to consume these staples in their fresh form, with limited acceptance of pre-processed or stored alternatives. Without a shift in consumer behaviour toward pre-processed or

semi-processed fresh food, the sector will continue to experience high losses, supply volatility, and price fluctuations.

iii. **Poor Marketing Arrangements**: Weak market linkages and poor road infrastructure contribute to low prices during peak harvest seasons. Lack of standards and trade data reduces market efficiency. This leads to missed export opportunities and low buyer confidence.

iv. **High Level of Produce Perishability**: Cassava deteriorates quickly after harvest, with up to 30% of the produce lost before reaching the market due to poor harvesting practices, inadequate storage, and long transportation distances. Poor infrastructure delays delivery and further reduces quality. These factors result in significant post-harvest losses.

3.1.3.3 Interventions for Starchy Crops

i. **Planting Material Multiplication and Supply**: The program aims to boost industrial feedstock by identifying suitable production zones and supporting key institutions (e.g., CSIR-CRI, SARI, BNARI) in producing breeder, primary, and tissue-cultured planting materials. Key interventions include: site identification and mapping of production zones; institutional support for planting material production; enhanced production of quality planting materials; widespread distribution and scaling; and capacity building of farmers and compliance in GhanaGAP, GLOBALGAP, traceability protocols, and modern planting material multiplication techniques.

ii. **Mechanisation Services for Land Preparation and Harvesting**: The FGP will facilitate the provision of mechanised services (ploughing, ridging, planting, harvesting) through FSC for 100 Ha initially in 2025 scaling up to 50,000 Ha in 2026, 100,000 Ha in 2027 and 500,000 Ha in 2028.

iii. **Establishment and Maintenance of Starchy Crops Fields**: The programme will facilitate the establishment of 50,000 to 100,000 Ha of cassava fields; 5,000 yam fields in 2025, increasing to 10,000 in the medium term and 20,000 Ha in the long term. In the case of plantain, up to 45,000 hectares will be established in 2025, rising to 90,000 Ha in the long term. Government support will entail the provision of planting materials, farm machinery and extension services to ensure sustainable field maintenance and increased productivity.

iv. **Storage, Processing and Aggregation Infrastructure**: This intervention aims to enhance postharvest systems by improving storage infrastructure in 14 districts including construction/renovating 14 yam barns/collation centres and 1 packhouse. It will also pilot and scale up technologies such as Modified Atmosphere Packaging (MAP) and radiation to extend shelf life, while

promoting the production of value-added cassava and plantain products. The initiative will also train over 600 farmers, support agro-processors with credit and market access, empower women through VSLAs, and build the capacity of 3,840 women, youth, and PLWD. A national campaign will be rolled out to promote the consumption of pre-processed starchy crops.

v. **Market Linkages and Trade Facilitation**: This will include (a) register at least 100 FBOs and cooperative groups across starchy crop value chains; (b) Link commercial cassava producers to major processors (e.g., breweries, distilleries etc.) and FBOs (c) Connect producers to good practice and processing centres in key districts (e.g., Fanteakwa, Juapong, Bawjiase, Atebubu, Afram Plains); (d) Establish structured trade systems including, cross-border data collection system with PPRSD, grading and pricing mechanisms for yam and plantain and implementation of traceability systems for export yams.

vi. **Policy and Regulatory Support**: This intervention focuses on strengthening policy and regulatory frameworks to support the large-scale production and processing of these commodities. It includes finalizing the High-Quality Cassava Flour (HQCF) policy and targeting a 5–10% substitution of wheat flour in bakery products. MoFA will collaborate with Ghana Standards Authority (GSA) to develop and pilot standards for grading and packaging for plantain in two regions. Additionally, a traceability system for yams will be established with PPRSD. A Starchy Crop Development Strategy will be developed to guide the holistic development of value chains of key starchy crops.

vii. **Capacity Building and Training**: This intervention aims to build farmer and stakeholder capacity across starchy crop value chains. It includes training farmers and Agricultural Extension Agents (AEAs) on GAPs and adoption of improved technologies such as yam minisett technology and supporting farmer training on production standards such as GLOBALGAP to enhance export readiness. Exchange visits to best-practice centers will be facilitated, focusing on areas like waste management, food hygiene, and improved processing methods (e.g., smokeless stoves). Additionally, stakeholders will be sensitized on traceability systems, certification processes, postharvest handling, and market access protocols.

3.2. Sub-Programme 2: Livestock Development

Livestock development under the FGP aims to improve livestock productivity through the provision of improved breeds, access to quality feed and veterinary services, and the adoption of modern husbandry practices. It also aims to make a significant contribution to job creation, income generation, and a reduction in Ghana's dependence on imported meat and animal products. This sub-programme has two components: (a) Poultry Industry Revitalization and (b) Ruminants (cattle, Sheep and Goat) and Pigs Development Project.

3.2.1. Component 1: Poultry Industry Revitalization

The poultry subsector is a critical driver of Ghana's agricultural transformation, with immense potential to improve food security, generate employment, and reduce the country's heavy dependence on poultry imports. Currently, Ghana spends over US$300 million annually on chicken imports, highlighting an urgent need to boost domestic production and develop a resilient, self-sufficient poultry value chain (USDA, 2024).

Issues in the Poultry Industry

i. **High Cost of Feed**: Feed constitutes up to 70% of production costs. High cost of feed and poor quality has been among the major challenges facing the industry. This problem is caused by the high cost of maize and soybean meal, which are the two primary ingredients used in poultry feed preparation. Poultry farmers compete with the food industry, households, and foreign buyers for these ingredients, as there are no disaggregated markets. Additionally, economical and cost-effective alternatives have yet to be fully explored. This situation, coupled with the high cost of other inputs, makes Ghanaian poultry farmers uncompetitive.

ii. **Weak Animal Health Management System**: The poultry industry in Ghana is faced with challenges related to disease surveillance and management due to inadequate veterinary infrastructure, personnel, and logistics. Non-compliance with biosecurity protocols on farms has led to frequent outbreaks of diseases such as Newcastle Disease and Avian Influenza, causing high mortality rates and economic losses. Additional challenges include limited access and high cost of vaccines, unregulated and unhygienic hatcheries, poor biosecurity, misuse of antimicrobials, and inadequate cold chain facilities for vaccine storage, especially at the sub-national level. These issues collectively hinder industry competitiveness and productivity.

iii. **Weak Value Chain Linkages**: Poor infrastructure, limited processing facilities, inability to process to meet consumer specification/demands (cut parts), and the lack of market linkages hinder profitability.

iv. **Unregulated and Unstandardized Hatchery Operations**: Due to the lack of regulation and inadequate knowledge, most hatcheries operate below standard operational requirements, resulting in a poor hatchability rate and low chick quality. This situation results in lower productivity and a high mortality rate on poultry farms.

v. **Poor Poultry Value Chain Infrastructure**: Unsuitable poultry pens, substandard feed processing units, and limited storage facilities are limitations to efficient poultry production. Also, non-adherence to standard requirements such as appropriate structure orientation, adequate floor spacing and ventilation adversely affects optimum production.

As part of the FGP, MoFA is implementing a comprehensive three (3)-pronged poultry development strategy aimed at revitalizing the industry. This includes support for:

a) Large-scale commercial poultry farms (Poultry Farm-to-table)
b) Small-to-Medium Scale Poultry Farms and
c) Backyard poultry farming *(Nkoko Nketenkete)*.

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3.2.1.1. Support to Large Scale Commercial Poultry Farms (Poultry Farm to Table)

This initiative will focus on anchor[8] farmers who will work with out-growers to produce broiler chicken for the Ghanaian market. The initiative will begin with the selection of large-scale commercial poultry (broiler) farmers through a competitive application and screening process, prioritizing existing commercial farms with demonstrated capacity and infrastructure.

Interventions

The programme will facilitate bulk procurement and distribution of quality inputs, feed and vaccines. In the first year of the programme, selected commercial poultry farmers will be provided with day-old broiler chicks (DoCs) along with other accompanying inputs to produce 80,000 birds each. The number of anchor farmers will be scaled up in the subsequent years, as presented in Table 13. To complement this, the Government will provide technical support and introduce innovative financing options for the development and upgrade of critical infrastructure, including hatcheries, breeder farms, poultry housing, and processing plants. The programme, through anchor farmers, will explore marketing opportunities for mature or processed birds and collaborate with relevant institutions to promote the patronage of locally produced birds.

Table 13:Number of Anchor farmers, volumes and inputs needed

Items	Year			
	2025	**2026**	**2027**	**2028**
Number of Anchor farmers	50	70	90	120
Number of DoCs	4,000,000	5,600,000	7,200,000	9,600,000
Poultry (Broiler chicken) meat (Mt)	6,000	8,400	10,800	14,400
Average feed intake (MT)	18,000	25,200	32,400	43,200
Maize (MT)	10800	15,120	19,440	25,920
Soya (MT)	5,400	7,560	9,720	12,960
Drugs (kg)	32,800	45,920	59,040	78,720
Vaccines (doses '000)	16,000	22,400	28,800	38,400

Source: MoFA, 2025

The programme will also strengthen veterinary and extension services tailored to the needs of commercial poultry operations, ensuring improved animal health and productivity. To enhance value chain efficiency and reduce post-production losses, investments will be made in cold chain and poultry processing infrastructure, ensuring quality control and food safety.

8 large scale commercial farmer is a poultry producer with a capacity of at least 20,000 birds.

3.2.1.2. Support to Small -To-Medium -Scale Poultry Farms

This initiative seeks to support poultry farmers with a production capacity of 500 to 2,000 birds, with the potential to scale up their operations. The Animal Production Directorate (APD) and Veterinary Services Directorate (VSD) will liaise with the District Departments of Agriculture in the selection of farmers. The focus will be on farmers with demonstrable potential to scale up.

Interventions

Each selected beneficiary will be supported with 500 to 2,000 birds to rear, depending on their operational capacity and infrastructure readiness. Essential inputs such as DoCs, feed, veterinary drugs, and vaccines will be provided. Prototype housing structures will also be provided, accessed and financed using an input credit system and other loan facility services with structured and favourable terms of payment. This will enable timely access to critical inputs without requiring upfront cash. Beneficiaries will be supported in forming Self-Help Cooperatives (SHC) to enjoy economies of scale through such arrangements. Poultry processing facilities would be provided and operated by these SHCs at the strategic locations near poultry production clusters to ensure quick and timely processing of harvested birds.

To enhance productivity and flock health, beneficiaries will receive hands-on training on Good Poultry Management Practices (GPMP). The programme will also ensure regular feed quality checks and strengthen veterinary service delivery to reduce mortality.

To improve input availability and reduce costs, support will be provided for the establishment of small-scale feed mills and outlet points closer to farming clusters. Existing feed mills will be supported to scale up their production capacities. In addition, the programme will promote aggregation and collective marketing, enabling farmer groups to access better prices and formal markets, thereby enhancing profitability and resilience in the poultry value chain.

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9 See animal health targets for poultry in appendix 4.

3.2.1.3. Household and Backyard Poultry Production *(Nkoko Nketenkete)*

"Nkoko Nketenkete" is a household-level poultry initiative under the FGP aimed at promoting food security, nutrition, and incomes. It will target women, youth, and vulnerable households. The intervention will provide starter packs and basic veterinary support to encourage small-scale, sustainable poultry production at the household level. This intervention is designed to stimulate interest and participation in household-level poultry production.

Interventions

Beneficiary households will receive starter packs consisting of improved dual-purpose breeds such as Kuroilers and ARIBRO. Also, pullets, battery cages, feed, and vaccines for backyard poultry rearing will be provided. Each beneficiary will be supplied with 10-20 birds (6-week-old Kuroilers/ARIBRO) to be raised for meat and eggs, with a minimum financial contribution of at least 10% from farmers. A total of one million dual-purpose birds are expected to be raised for distribution to 50,000 households annually over the 4-year (2025-2028) period. A similar pack comprising 120 pullets will be provided to each of the 4,000 farmers, mostly women, for egg production over the four-year period. To ensure high survival rates and healthy flocks, the programme will provide thermostable vaccines, such as the I2 vaccine, and basic poultry health kits, adapted to rural and low-resource settings.

To encourage broad participation and community ownership, mass sensitization campaigns will be conducted to raise awareness about the health, nutrition, and economic benefits of backyard poultry. The programme will build strong partnerships with community leaders, women and youth groups, faith-based institutions, and traditional authorities to promote inclusive implementation. Beneficiary targeting will be done through a community-based selection process, with special emphasis on women-headed households and unemployed youth. Regional and District Departments of Agriculture (including District Veterinary staff) will lead in identifying eligible participants, using appropriate tools to ensure transparency in the selection process.

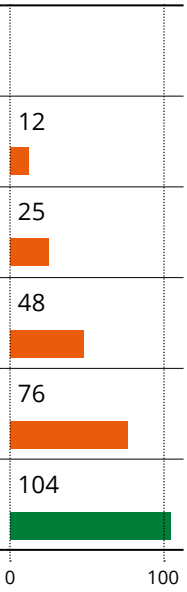
This holistic approach ensures that *Nkoko Nketenkete* will not only support household nutrition and income generation but will also strengthen rural resilience and community development through inclusive and well-targeted interventions. The national production targets for broiler chicken production based on the current existing processing capacities and self-sufficiency levels are summarized in Table 14.

The Project will leverage grains such as maize and soya that will be produced from interventions in the crops sector and explore ways of using feed ingredients and proven alternate feed resources that minimize the cost of poultry production. Additionally, the Farm Services Centres will be equipped with balers and feed pelleting machines for the conservation and utilization of feed resources.

Table 14:Production targets for Poultry (2025-2028)

Year	National production capacity (No. of birds that can be raised)	No. of production cycles/year	Expected installed processing capacity (birds/hr)	Meat production / Target (MT)	Total consumption (MT)	Gap (MT)	% Self sufficiency
2024 (Baseline)*			9,000	30,000	258,206		
2025	20,260,800	4	11,100	30,391	262,982	232,591	12
2026	44,452,800	4	24,000	66,679	266,927	200,248	25
2027	86,788,800	4	42,000	130,183	270,931	140,747	48
2028	139,204,800	4	52,000	208,807	274,995	66,187	76
2029	192,628,800	4	53,000	288,943	279,120	-9,824	104

Source: MoFA (2025) * Provisional



Based on the existing national processing capacity of 11,100 birds/hr, a total of 30,391 MT of broiler chicken can be produced in 2025 employing a 3-shift system within 24 hours. This production level can be scaled up progressively to achieve a self-sufficiency level of 104 per cent by 2029, if the processing facilities are scaled up to 53,000 birds per hour using the 24-hour shift system. It is expected that initiatives from other sources will add to the government-planned interventions to achieve the desired targets.

3.2.2. Component 2: Ruminants and Pigs Development

Livestock production is a source of income for farmers in the country, and its socio-economic importance in employment creation and poverty reduction cannot be overemphasized. It supports the livelihoods of many rural households and supplies essential animal protein to the population.

Ghana's meat production struggles to meet national demand, resulting in substantial imports. In 2023, the country imported live animals worth approximately $17.7 million, with cattle, goats, and sheep constituting 70% of these imports from neighbouring countries including Burkina Faso, Niger, Mali, and Nigeria (GSS, 2023). Additionally, frozen meat (from ruminants and pigs) imported into the country totalled over $75 million (MoFA, 2023). The heavy reliance on live animal imports and animal products underscores the need for strategic interventions to boost local

production and reduce dependency on external sources. Dairy production in the country has also not performed well with up to 95% of the country's needs met by imports.

Pig production also contributes to food and nutrition security as well as improved livelihoods. While the industry is projected to grow, it is often characterised by small-scale farmers with significant opportunities for development in areas such as breeding, housing, feeding, and veterinary services.

Challenges

Production challenges in ruminant and pig development include

i. Low genetic potential affecting productivity.
ii. Limited access to improved breeding stock.
iii. Limited access to finance due to production risk and weak livestock policy and regulatory environment.
iv. Lack of structured and well-managed cattle ranching system.
v. Inadequate veterinary infrastructure and staff, coupled with limited diagnostic capacity.
vi. Uncoordinated and underfunded vaccination programmes.
vii. Limited farmer knowledge on disease prevention, recognition and control.
viii. Poor zoo-sanitary practices in smallholder ruminant and pig production systems.

Post-Production Challenges in ruminant and pig development include

i. Limited veterinary supervision in rural slaughter facilities.
ii. Weak value chain linkages.
iii. Unhygienic slaughter and zoonotic hazards.
iv. Ineffective animal identification and traceability systems.
v. Limited public knowledge about food safety and zoonoses.
vi. Poor meat handling and inadequate cold storage facilities.

3.2.2.1. Interventions

a. Small Ruminants - Sheep and Goats

i. Support farmers with improved breeds at subsidized rates, mainly targeting the youth.
ii. Support National Livestock Breeding Stations and the Techiman Disease Investigation Farm through restocking and provision of production inputs (including pasture development, feed, medication, and housing infrastructure).
iii. Promote feed development for smallholder farmers -pasture, baled straw, customized feed for small ruminants, feed pelleting and use of by-products.
iv. Development of vaccination plan for ruminants.

v. Increase livestock vaccine production and vaccination coverage.[10]
vi. Enhance veterinary infrastructure and diagnostic capacity.
vii. Strengthen veterinary public health and meat safety systems.
viii. Develop animal identification and traceability systems.


Credits: Freepik

b. Piggery

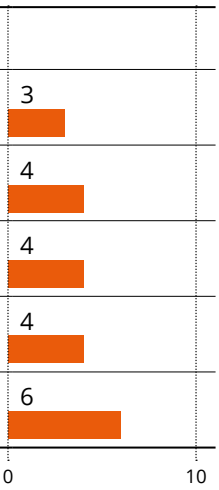
i. Support farmers with improved breeds at subsidized rates
ii. Support national Livestock Breeding Stations through restocking with grandparent stock to improve the local stock bloodlines and to multiply and disseminate to targeted outstation breeders and farmers nationwide.
iii. Support the breeding stations with production inputs (pasture development, feed, medication, and housing infrastructure) and other logistics.
iv. Support feed development for pigs, including feed pelleting and agro by-products.
v. Strengthen veterinary public health and meat safety systems.
vi. Conduct targeted surveillance on African swine fever, including periodic sero-monitoring.

Table 15 presents the level of expected intervention for small ruminants (sheep and goats) and pig production in the immediate to medium term.

Table 15:Production Targets for Small Ruminants and Pigs

Year	Sheep	Goats	Pigs	Total expected no. of animals	v	Total consumption (MT)	Gap (MT)	% Self sufficiency
2024 (Baseline)*					4,880	154,923		
2025	46,954	39,128	125,209	211,291	5,124	157,789	152,665	3
2026	51,649	43,041	137,730	232,420	5,893	160,156	154,263	4
2027	59,396	49,497	158,390	267,283	7,071	162,558	155,487	4
2028	71,275	59,396	190,068	320,739	7,425	164,997	157,572	4
2029	89,094	74,245	237,585	400,924	9,281	167,472	158,191	6

Source: MoFA (2025) * Provisional



10 See animal health targets for ruminants and pigs in Appendix 5

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According to MoFA, as captured in Table 15, the country's current small ruminant and pig production is far below self-sufficiency levels within the short to medium term. This, therefore, justifies a concerted effort to address the issue even from a modest level. A target of 211,291 animals comprising sheep, goats and pigs will be provided to farmers across the country at subsidized rates and on a need basis. This will be scaled up in subsequent years. This intervention sets the tone for a revival and support system aimed at bridging the import gap in the foreseeable future. Given the short gestation periods of sheep and goats and the prolific nature of pigs, it is anticipated that such support for livestock farmers will enhance meat production along the small ruminant and pig value chains. It will also increase animal protein intake among the citizenry, particularly benefiting the youth and encouraging them into profitable employment ventures, which aligns well with the FGP.

c. Dairy

i. Restock, retool and support Amrahia Dairy Farm to serve as a dairy training centre for farmers.
ii. Training of Artificial Insemination (AI) technicians at the breeding stations to enable them to offer AI services to farmers nationwide.
iii. Support the establishment of baling centres on commercial basis, close to rice-producing areas, to optimize the use of rice by-products for feeding cattle.
iv. Support dairy farmers to optimize production, and processing of milk into milk products such as yoghurt, cheese, ghee, etc. and marketing of the same through training and improved nutrition strategies.
v. Support VSD with diagnostic kits and PPEs to provide prompt animal health services to dairy farmers.
vi. Support the development of marketing outlets for milk and dairy products.
vii. Improve infrastructure for cattle markets and upgrade existing abattoirs to meet standard.
viii. Develop grazing reserves and mobility corridors for transhumance cattle to reduce farmer-herder conflicts.

3.3. Sub-Programme 3: The Establishment of Farmers' Service Centres

3.3.1. Introduction

The establishment and operation of Farmers' Service Centres (FSCs) is a key initiative within the FGP, strategically designed as an innovative hub to improve the accessibility of farmers, especially smallholders, to essential agricultural inputs and services. A typical FSC will provide the following: inputs (seed, fertilizer, pesticides, veterinary drugs and vaccines), agricultural mechanization services, veterinary services, extension services, agribusiness advisory services, warehouses, primary and secondary processing facilities and market linkages. The market linkages will be established through off-taker arrangements with the National Buffer Stock Company (NAFCO), the Ghana Commodity Exchange (GCX), and other private aggregators. A total of 270 FSCs will be established across the country within the programme period.

Rationale

Agriculture in Ghana continues to face persistent challenges, including low productivity, limited access to quality inputs, inadequate infrastructure, weak market systems, limited number of professionals operating along the value chain nodes, inadequate extension services, and difficulty in accessing funds. Smallholder farmers who form the backbone of the sector, often struggle to obtain certified seeds, fertilizers, pesticides, and modern farming technologies. Access to mechanization services is limited, especially in rural areas. This hampers timely and efficient farm operations.

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These challenges are further compounded by the fragmentation of agricultural support services, which are often distant, uncoordinated, or unaffordable for many farmers. Past government initiatives have aimed to enhance access to input and improve service delivery; however, their impact has been limited due to implementation challenges, including inadequate coverage.

In response to the need for improved access to holistic agricultural services, the FSCs present a strategic solution designed as one-stop hub to provide farmers with easy access to essential agricultural inputs and services. Where necessary, the FSCs will include services for the poultry and livestock sub sector. The FSCs aim to improve the quality, timeliness, and efficiency of input and service delivery, while strengthening knowledge transfer and linkages along agricultural value chains. By decentralizing and integrating critical services, FSCs will enhance productivity, farmers' incomes, food security, job and wealth creation, and rural economic transformation.

3.3.2. Objectives of Establishing FSCs

i. Improve timely access to quality farm inputs and services at affordable cost.
ii. Provide farmers with timely access to appropriate agricultural machinery and equipment for farming operations.
iii. Enhance the skills of farmers and other stakeholders in good agricultural practices and farm management.
iv. Establish strong linkages between farmers and markets to ensure a consistent and adequate supply of produce needed to meet contractual obligations.

3.3.3. Key Features of the FSCs

a. **Management**: FSCs will operate on Public-Private Partnership basis with selected private sector operators. This will involve private enterprises or cooperatives ensuring long-term sustainability.
b. **Agricultural Input Provision**: FSCs will offer farmers high-quality agricultural inputs such as animal feed, certified seeds, fertilizers, pesticides, vaccines and improved breeds.
c. **Mechanization Services:** it will provide a full complement of agricultural machinery and equipment suitable for the various agro-ecological zones. The services will cover land development and preparation, planting, fertilizer application, weed and pest control, harvesting, primary processing, among others. It will employ well-trained and licenced machinery operators and mechanics to operate and maintain the equipment. The FSC will ensure an adequate and continuous supply of spare parts for all machinery and equipment.
d. **Extension Services**: These include both on and off-farm training programmes, Good Agricultural Practices (GAPs), animal husbandry advice, pest and disease management, demonstrations, veterinary services and post-production services to improve farming practices and productivity. Weather and market information will also be disseminated.
e. **Market Linkages**: This feature will connect farmers with buyers and markets, enabling them to sell their produce more profitably and on time. The market linkages will be established through off-taker arrangements with National Buffer Stock Company (NAFCO), Ghana Commodity Exchange (GCX) and other private aggregators.
f. **Climate-Smart Agriculture**: This will promote sustainable practices such as the use of improved seeds and drought-tolerant varieties to help farmers adapt to climate change while reducing environmental impact. It will also introduce digital solutions and climate-smart technologies to enhance efficient farm management and increase productivity.
g. **Business Advisory Services**: The FSC operators in collaboration with relevant agencies, will build the capacity of value chain node managers and operators in business management, marketing, financial management, and customer service skills. The business aspect will also provide hands-on agribusiness training for value chain nodes managers and operators.

3.3.4. Operationalization and Management

The successful operationalization of FSCs is central to achieving the goals of the Feed Ghana Programme. The government will provide the necessary infrastructure, machinery and equipment for the FSCs, whilst its management will be structured under a Public-Private Partnership (PPP) arrangement guided by the PPP Act 2020.[11]

Management: Managers of the FSCs will be classified as anchor operators who will be entrusted with the daily operations of each FSC. The FSC Anchor Operators will be selected through a competitive process. The selected anchor operator will be expected to have a set minimum capital and capacity to operationalise the centre. Existing private farm service centre operators and machinery service providers will be given the opportunity to participate in the FSC initiative by leveraging their existing infrastructure.

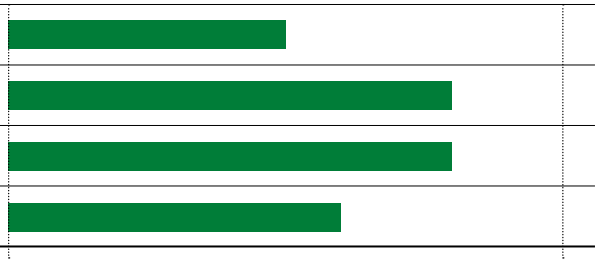
Governance: A governing Board[12] will be constituted to provide strategic guidance and oversight for the management of the FSC.

Credit Support: To further support inclusivity and reduce barriers to entry, the FSCs model incorporates a credit system where farmers registered with FSCs can access inputs and services on a deferred payment basis and repay in-kind. This will specifically target smallholder farmers, women, youth and people living with disabilities (PLWDs) who often lack access to formal credit.

Geographic Targeting: The FSCs will be geographically located to serve a specific district and other adjoining districts, ensuring that agricultural support services are localized and accessible. This spatial targeting will enable efficient service delivery, reduce travel time and costs for both farmers and operators, facilitate cost recovery, and promote equitable access across regions. Fifty FSCs will be established in the first year (table 16) expanding to 270 over the programme period.

Table 16: Number of FSCs to be Established

Period	Year	Number of FSCs
Immediate	2025	50
Short-Medium Term	2026	80
	2027	80
	2028	60



Source: MoFA, 2025

11 Refer to PPP Act 2020 - Sections 5&8
12 Including: Coordinating Director of Assembly /representative, District Director of Agric., Representative of Farmer group (2), Traditional Authority, FSC Anchor Operator, Regional Director of Agric/Representative, Business Advisory Centre/Business Resource Centre Head, Regional Veterinary Officer, District Veterinary Officer, National Security Operatives.

Target Beneficiaries

The FSCs is open to all farmers and will prioritize the following groups: (i) Women (ii) Youth (iii) Persons with Disabilities (PWDs) (iv) Farmer-Based Organizations (FBOs).

The FSCs will provide customized support such as technical training on GAPs, improved seeds, mechanization services, vocational mentorship, financial literacy, access to credit, and adaptive tools for PWDs. Women will be empowered through leadership training and support for women-led enterprises. The youth will benefit from skills development and innovative farming tools, making agriculture more attractive and sustainable.

To ensure equitable distribution of resources and effective monitoring, all participating farmers will be registered, and their farms will be geolocated to determine acreage and capacity. Inputs and services including seeds, fertilizers, and mechanization will be provided based on the type of commodity and farm size. This data-driven and inclusive approach is designed to enhance efficiency of operations.

3.4. Sub-Programme 4: Farm Bank Development

3.4.1. Introduction

Farm banks are structured agricultural production zones that provide farmers with secure land access and infrastructure and will be developed under FGP to attract youth and women into farming.

Under this initiative, MoFA will collaborate with Regional Coordinating Councils, District Assemblies and Traditional Authorities to identify and develop suitable public and privately owned lands for agricultural purposes. These lands will be allocated to registered farmers (individuals, groups and associations) to cultivate one or more of the priority crops.

The privately owned lands will be leased (in-kind[13] or cash) to the Government for development. The land development will entail clearing, soil testing and constructing infrastructure, such as irrigation and storage facilities, where applicable. The government will monitor progress, maintain infrastructure, and ensure sustainable land use. Environmental and social impact assessment tools will be deployed under this sub-programme to ensure sustainable land development and ecological integrity.

13 Lease in kind refers to an arrangement where a portion of the developed land is given to the owner as payment of the lease.

Accessing lands for agricultural purposes is challenging due to the complex land ownership and cumbersome land acquisition processes. Additionally, developing such lands is expensive and requires government intervention. The creation of the farm banks is therefore essential to improve access to agricultural lands especially for smallholder farmers and the youth.

3.4.2 Establishment of Farm Banks

Farm Banks initiative will be rolled out across the country for nationwide impact. Some FSCs will be sited close to the Farm Banks to provide technical, mechanization, input and market support services. A total of 100,000 Ha is targeted for development under this initiative. The process for establishing farm banks involves;

i. **Land Identification**:
   - Identify and review the suitability of existing Government agricultural lands.
   - A call by the FGP secretariat in collaboration with Regional Coordinating Councils and District Assemblies for nomination of lands by interested Landowners/Traditional Authorities.
   - Assessment of these agricultural lands based on soil fertility, accessibility to water resources, and other relevant factors for suitability.

ii. **Land Allocation**: Developed lands will be allocated to youth, women, PLWDs, commercial/anchor farmers, and smallholder farmers under an inclusive model.

iii. **Land Management**: GIDA will manage and conduct routine monitoring to ensure effective land and water use, as well as the performance of the infrastructure. For lands with irrigation facilities, scheme Management Entities or Water Users' Associations will oversee the operation and maintenance of the facilities.

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3.5. Sub-Programme 5: Institutional Farming

3.5.1. Introduction

Institutional farming refers to agricultural operations owned and/or undertaken by institutions, either governmental or private. In Ghana, institutions such as the security agencies, National Service Authority (NSA), Youth Employment Agency (YEA), Religious-Based Organization and some educational institutions (Senior High Schools, Universities, etc) have maintained institutional farms[14] to primarily supplement food and nutritional needs, research and development, as well as the provision of practical training. Over time, these initiatives have evolved into more structured programs, often aligned with national agricultural policies. With the provision of appropriate and structured support, institutional farming will improve food production and security, skills development, job creation, build interest in agriculture and promote technological transfer.

3.5.2. Key Challenges

Institutions involved in farming have limited capacity to optimize production and expand operations due to some challenges including:

i. **Inadequate Infrastructure and Equipment**: Many institutions lack essential agricultural infrastructure and equipment such as irrigation systems, mechanized tools, feeder and farm roads, as well as post-harvest facilities. Some also have undeveloped lands due to the high cost of land development. These limitations hinder their ability to cultivate large tracts of land efficiently and sustainably throughout the year.
ii. **Inadequate Technical Expertise**: Many institutions lack the technical capacity to effectively manage farms or cultivate high-value, specialized crops. Even when farm managers are in place, they often have limited knowledge of modern agricultural practices, improved technologies and innovations, which hamper productivity and efficiency.
iii. **Market Access**: Despite having access to sizable tracts of land and the potential to scale up production, many institutions struggle to engage in farming due to limited market access. Poor understanding of market dynamics, selection of value chains, and commercialization strategies often leads to underutilization of land and missed economic opportunities.
iv. **Limited Access to Extension Services**: The limited number of public AEAs constraints transfer of technical knowledge and access to advisory services to these institutions. It thus limits their potential to optimize production.

14 An institutional farm is any crop and/or livestock production enterprise managed by public, private, or educational institutions, such as ministries, research centers, universities, or corporate bodies, primarily for production, research, training, or demonstration purposes.

v. **Inadequate Operational Funds**: A significant constraint faced by many institutions seeking to engage in farming is the limited access to operational funding. These funds are critical for the procurement of essential inputs such as seeds, fertilizers, feed, medication and for meeting recurrent expenditures. The absence of such financial resources inhibits institutions from initiating commercial farming ventures or scaling up existing agricultural operations.

3.5.3. Interventions

Under the FGP, the institutional farming component will identify institutions and organizations to be supported to own and manage a farm. This support will extend to institutions with already established farms as well as those with the intention of commencing.

The institutions are expected to leverage existing agricultural activities to scale up food production to supplement their food supplies or sell. Through innovative programmes and partnerships, the institutions will not only cultivate crops and rear animals but also promote interest in agriculture among participants, students, and religious leaders, among others. It will also nurture hope and opportunities for prison inmates.

Specifically, the FGP seeks to support institutions in the following areas:

1. **Provision of Input Support**: Input subsidies or credit schemes will be provided to institutional farms through the FSCs to increase their access to certified seeds, fertilizers, agrochemicals, improved breeds of livestock, and other inputs.
2. **Infrastructure and Mechanization Support:** Facilitate institutional financing or grants for infrastructure development.
3. **Land development for cultivation**: The program will provide support for the development of lands identified by institutions.
4. **Provision of Agricultural Advisory Services**: Institutions will be linked to District and Regional Agricultural Officers, as well as private extension service providers, to receive the necessary technical support for effective and sustainable agricultural production.
5. **Financial Support and Access to Credit:** Institutions will be supported in accessing funding through banks, projects, grant schemes, and agricultural insurance products. Additionally, they will be linked to service providers to help them develop proposals to access financial facilities.
6. **Improve Access to Ready Markets**: FSCs located near institutional farms will facilitate market linkages and also provide direct market access.
7. **Capacity Building for staff of Institutional Farms**: Through the FSCs initiative and with support from the DADs and DAES, staff of institutional farms will undergo periodic training on farm management and other skills to enhance their technical capacity in farm operations.

3.5.4. Target Institutions

Through the institutional farming sub programme, the FGP will target a broad range of public and private institutions that are either currently engaged in farming or demonstrate the potential to undertake farming activities. These institutions will include:

i. National Service Authority
ii. Security agencies such as the Prisons Service, the Ghana Armed Forces, the Ghana Immigration Service and the Police Service.
iii. Youth Employment Agency (YEA).
iv. Agricultural Research Stations.
v. Faith-based Institutions, including churches, mosques, mission schools, orphanages and hospitals, etc.
vi. Educational Institutions such as Senior High Schools (SHS), Agriculture and Educational Colleges, TVETs, Farm Institutes and Universities
vii. Home gardens.

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3.6. Sub-Programme 6: Feed the Industry

3.6.1. Tree Crops Development

The tree crop sector plays a pivotal role in Ghana's economy, contributing significantly to GDP, export revenues, employment, and rural livelihoods. Crops such as cocoa, oil palm, cashew, rubber, shea, mango, citrus and coconut drive economic activity and support millions of households. Among the tree crops, cocoa has been a major foreign exchange earner for the country. However, the other tree crops also have the potential to earn the nation more foreign exchange with the right investments to develop and strengthen their value chain.

The FGP, through the TCDA and its interventions, will boost the production of local raw materials to ensure a consistent and sufficient supply of high-quality agricultural produce for industrial use. This sub-programme outlines key interventions to be undertaken to upgrade the prioritised tree crops for the benefit of the nation.

3.6.2. Cashew Value Chain

Cashew requires very little input for its management, grows in dry areas and is well adapted to the transitional and savannah areas of the country. These and other positive characteristics of the crop have captured the interest of the Government, development partners, and the private sector, leading to investment in the sub-sector.

Cashew has become a prominent export commodity since 2002. It is currently the second-leading non-traditional export (NTE) in agriculture, earning the nation about $225.7 million in export revenue in 2023 (GEPA, 2025). This represents 45.5% of $496.82 million received from the total agricultural NTE sub-sector in 2023 (GEPA, 2025). It is estimated that there are over 280,000 cashew farmers with a total of 272,432 ha of cashew plantations yielding about 252,932 MT of Raw Cashew Nuts (RCN) as at the 2023/2024 season (MoFA, 2024).

Credits: Freepik

3.6.2.1. Issues And Challenges

i. **Low Productivity**: Many farmers rely on traditional farming methods, which result in sub-optimal yields. Poor soil health, limited use of improved varieties, and inadequate access to inputs exacerbate the issue. Most of the earlier established plantations do not conform to improved and productive agronomic practices such as the use of improved clones, recommended plant populations, effective pruning and thinning. This has adversely affected the productivity of these plantations.

ii. **Limited Mechanization**: The sector is predominantly smallholder-driven, with minimal adoption of mechanized farming techniques.

iii. **Poor harvest and post-harvest management**: Over the past few years Ghana has consistently lost RCN quality, thereby moving from first position as a high-quality RCN producer to 5th position globally (Cashew-Info., 2025). This phenomenon is because of poor harvest and post-harvest management by value chain actors. The decline in quality resulted in a decrease in revenue from $287.5 million (from 160,314 MT RCN) in 2021 to $239.2 million (from 208,408 MT RCN) in 2022, and subsequently to $225.7 million (from 229,249 MT) in 2023 (BoG, GEPA Reports).

iv. **Processing and Value Addition**: Limited investment in modern processing facilities for both the RCN and the cashew apples reduces the potential for value addition, affecting the competitiveness of cashew tree products in international markets.

v. **Low level of youth involvement in the cashew industry**: This poses a significant challenge to the industry's long-term sustainability and growth. The industry risks stagnation, reduced productivity, and decreased ability to adapt to changing market trends and global demands. Furthermore, the absence of youth involvement may lead to a loss of traditional knowledge and skills, as well as a lack of fresh perspectives and innovative solutions needed to address emerging challenges and capitalize on new opportunities.

vi. **Infrastructure Deficiencies**: Poor road networks and inadequate storage facilities hinder the efficient movement of goods, reducing product quality.

vii. **Incidence of Pest and Diseases**: Cashew Powdery Mildew Disease (CPMD), amongst other diseases, plague cashew fields, causing reduction in nut yields and quality and causes between 70% and 100% yield losses in cashew (Mrope et al., 2025). This disease has been spotted in many cashew plantations.

viii. **Use of unapproved agrochemical**: This phenomenon tends to increase the residual levels in kernels, a risk that could lead to banning RCNs from Ghana.

ix. **Adulteration of RCN with low-quality RCN**: The adulteration of RCN produced in Ghana with low-quality RCN from other countries contributes to the decline in the quality being observed in recent years.

3.6.2.2. Interventions

The following interventions have been developed to address the issues identified;

i. **Productivity improvement programmes**: TCDA, under the FGP, will spearhead the widespread promotion and adoption of improved agronomic practices, including the production, propagation and introduction of high-yielding and disease-resistant cashew clones from certified nurseries. Farmers would be sensitized and supported to observe good agronomic practices for optimal yields and high-quality RCNs. This will include replanting and/or rehabilitation of old plantations using recommended plant populations. Extension services provision would build the capacity of farmers to increase their productivity. Additionally, access to quality inputs such as fertilizers, certified seedlings, tools and equipment, would be pursued, along with the establishment of demonstration farms to serve as practical learning platforms. Under the FGP, we aim to increase cashew yield from the current 0.95MT/ha to 2.0MT/ha by 2028 (see table 17).

ii. **Sensitization of value chain Actors**: Cashew value chain actors especially farmers, aggregators, traders and exporters will be sensitized on the RCN quality management. Under the FGP, the Tree Crop Development Authority (TCDA) will strengthen the enforcement of regulations and standards on cashew aggregation, trading and export in accordance with the TCDA Act (Act 1010) and L.I. 2471.

iii. **Quality Control:** TCDA, in collaboration with MoFA, will establish a quality control and inspectorate unit in the medium to long term to oversee quality checks before any RCN consignments are shipped out of the country.

iv. **Strengthening Processing and Value Addition:** PPPs would be pursued to establish and upgrade modern processing facilities, providing financial incentives and technical support for local processors and value addition enterprises.

v. **Increase Youth involvement in the Cashew Industry**: Under the Farm Banks initiative, lands will be developed to increase youth access to land for cashew cultivation. This will be complemented by training programmes such as digital farming tools, mobile apps, and mechanized systems that equip youth with the necessary skills and knowledge to succeed in the sector. Access to production inputs will also be facilitated under this intervention.

vi. **Management of Pest and Diseases:** TCDA in collaboration with MoFA will: (a) Map out the affected areas and determine the incidence and severity level of CPMD; (b) Sensitize farmers on measures to contain the spread of the disease; (c) Support Research Institutions to develop cashew clones or varieties that are resistant/tolerant to the disease. (d) Will work with the National Insurance Commission and its members to expand the scope of agricultural insurance schemes to help farmers mitigate the financial risks associated with pest and disease outbreaks.

vii. **Institute a Traceability System for RCN**: TCDA has established a digital framework for a traceable supply chain and sustainable financing mechanisms, aiming to enhance the operational capacity of TCDA and the value chain actors in the cashew sector. Through the TCDA framework, MoFA and other agencies will develop a comprehensive data system for all value chain actors, particularly producers, with farmers' data linked to the polygons of their farms. TCDA in collaboration with relevant institutions, will also:

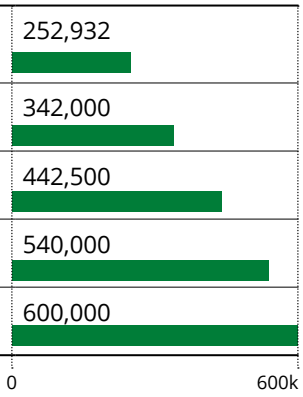
   a. Designate a route for transiting RCN from neighbouring countries, exported through Ghana's port.
   b. Install weighing bridges at the entry points (e.g., Hamile, Bondoukou-Sampa entry point, Bonao-Charcher entry point, etc.) and the weights of transit RCNs transmitted to TCDA and Customs ahead of the arrival of the goods to reduce the incidence of adulteration.

viii. **Regulation of Unapproved Agrochemicals**: TCDA will strengthen its collaboration with MoFA and the Environmental Protection Authority (EPA) to establish a system to ensure that all agrochemicals used on tree crops, particularly cashew, are tested and recommended.

Table 17: Production Targets for Cashew from 2025-2028

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	National Demand for value addition (Mt)	Total Consumption[15]	Surplus/ Deficit (Mt)	Production Target (Mt)
2024 (Baseline)*	272,432	0.95	252,932	65,000	65,000	197,932	252,932
2025	285,000	1.2	342,000	100,000	100,000	242,000	342,000
2026	295,000	1.5	442,500	200,000	200,000	242,500	442,500
2027	300,000	1.8	540,000	250,000	250,000	290,000	540,000
2028	300,000	2.0	600,000	300,000	300,000	300,000	600,000

Source: MoFA (2025) * Provisional



15 Total Consumption is quantity exported.

3.6.3. Coconut Value Chain

The Coconut Value Chain in Ghana involves multiple interconnected actors, from production through processing to end users including individuals, businesses, and export markets that utilize fresh or dried nuts and coconut oil.

3.6.3.1. Issues and Challenges

Despite its potential, the sector faces several challenges:

i. **Limited Access to Improved Planting Materials**: Limited access to high-quality, disease-free, disease-tolerant and high-yielding planting materials (seedlings). This is primarily due to the limited availability of nurseries and inadequate resource support for seedling producers.

ii. **Incidence of Pest and Diseases**: Coconut production in Ghana is threatened by pests and diseases such as Coconut Lethal Yellowing Disease, rhinoceros beetles, red palm weevils, scale insects, and bud rot, which reduce yields and tree vitality.

iii. **Low Processing Capacity**: Low processing capacity, which significantly hampers the sector's ability to add value, create employment, and maximize export earnings.

iv. **Limited access to Credit Facilities**: Despite the sector's economic growth potential, access to suitable credit remains a significant barrier to the potential growth and development of the sector in Ghana due to some of the risks enumerated.

v. **Low-level Knowledge in GAPs**: A major constraint affecting the productivity and sustainability of the coconut sector in Ghana is the low level of knowledge among farmers regarding Good Agricultural Practices (GAPs).

vi. **Weak linkages Between Actors**: The coconut sector in Ghana is characterized by fragmented and poorly coordinated relationships among key value chain actors. These include farmers, processors, input suppliers, transporters, aggregators, exporters, financial institutions, research bodies, and regulatory agencies.

vii. **Low Farm Productivity**: Despite the favourable agro-ecological conditions that support coconut production, the average yield per coconut tree or per hectare remains below optimal levels.

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3.6.3.2. Interventions

i. **Enhancing Access to Improved Planting Material** – To boost productivity, MoFA through TCDA will increase the availability of high-quality coconut seedlings. This can be achieved by supporting seed gardens and certified nurseries through public-private partnerships (PPPs). Subsidies for smallholder farmers and awareness campaigns on improved varieties will help drive adoption.

ii. **Enhancing Processing Capacity** – Modernizing the sector requires expanding processing facilities in key coconut-growing regions. Under the FGP, MoFA will facilitate Public-private partnerships to support private sector operators to upgrade existing and establish new processing facilities, while providing training and incentives to encourage local entrepreneurs. Investing in research for new coconut products and strengthening market linkages will improve competitiveness.

iii. **Improving Access to Credit** – Farmers and processors need better financing options, including dedicated agricultural loan schemes, crop insurance, and credit guarantees. The FGP will strengthen financial literacy and promote group-based lending through cooperatives and catalogue risk mitigants to provide assurances to financial institutions.

iv. **Enhancing the Knowledge Gap in Good Agronomic Practices (GAPs)** – the programme will strengthen extension services with well-trained advisors and digital tools (like mobile apps and radio). Hands-on training through Farmer Field Schools and educational materials in local languages will be pursued to enhance learning.

v. **Strengthening Linkages Between Actors** – Better coordination among farmers, processors, and traders is crucial. Multi-stakeholder platforms, industry associations, and a strong Coconut Federation led by the TCDA will be supported by FGP Secretariat to foster collaboration.

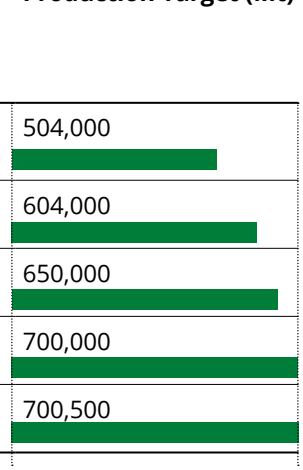
vi. **Improving Farm Productivity** – The FGP, through TCDA, will support the rehabilitation of farms with better varieties, ensuring access to quality inputs, and training farmers on Good Agricultural Practices (GAPs). The programme will also strengthen pest control and introduce small-scale irrigation in dry areas to further sustain production. Under the FGP, we aim to increase coconut yield from the current 6.7MT/ha to 9.0MT/ha by 2028 (see table 18).

vii. **Establishing a Digital Database** – A national mapping exercise and a centralized digital database will be established to improve planning and decision making. TCDA's digital framework will register value chain actors, ensuring a more efficient and traceable supply chain.

Table 18: Production targets for Coconut from 2025-2028

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)**	National Demand for value addition (Mt)	Total Consumption	Surplus/ Deficit (Mt)	Production Target (Mt)
2024 (Baseline)*	75,000	6.7	504,000	6,000	6,000	498,000	504,000
2025	78,000	7.7	604,000	6,850	6,850	597,150	604,000
2026	80,400	7.9	650,000	6,950	6,950	643,050	650,000
2027	95,200	8.5	700,000	7,150	7,150	692,850	700,000
2028	100,700	9.0	700,500	7,200	7,200	693,300	700,500

Source: MoFA, 2025 * Provisional **Note: Production figures is total nut (Fresh &Dry) harvested



3.6.4. Oil Palm Value Chain

The oil palm industry is a significant component of Ghana's agriculture, primarily driven by smallholder farmers. It supports rural livelihoods and ranks among Africa's top producers. Although productivity has improved significantly on large-scale plantations, this has not been realised to its full effect on smallholder farms and remains low.

3.6.4.1 Issues and Challenges

i. **Productivity** (on farm and post-harvest)

a. **Farm Yields**: Approximately 70% of oil palm farmers in Ghana are smallholders, usually managing plots of about 4 hectares. Most of these farmers often rely on traditional methods and minimal inputs, resulting in low average yields of around 6 Mt/Ha. In contrast, large-scale farmers and industrial plantations achieve higher yields of about 15 - 18 Mt/Ha (MoFA, 2024) which still fall significantly short of countries like Malaysia, where advanced farming techniques and better inputs help achieve yields of up to 24 Mt/Ha.

b. **Processing of Oil Palm**: Approximately 100% of Fresh Fruit Bunches (FFB) from farms are processed by either large industrial mills or small-scale artisanal mills. Post-harvest yields refer to the Oil Extraction Rate (OER) of these mills. The use of inefficient processing equipment, especially by the small-scale artisanal mills, results in an OER of between 10% and 12%, which is far below the average OER in industrial mills which is about 20%.

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ii. **Environmental and Sustainability Challenges**: Compliance with international environmental standards, such as the EU's deforestation regulations, and the Roundtable on Sustainable Palm Oil (RSPO) poses challenges for smallholders who often lack the resources to meet these requirements, potentially limiting access to lucrative export markets.

iii. **Gender Inequities and Youth Involvement**: Women constitute a significant portion of the labour force in the informal processing sector but often lack ownership and decision-making power, resulting in unequal benefit distribution. The oil palm subsector has seen some interest from the youth, however, a significant gap still exists.

iv. **Structural Fragmentation and Policy Misalignment**: Ghana's oil palm sector comprises two distinct sub-sectors: smallholder/artisanal producers and estate/industrial processors. Despite this bifurcation, policies often treat the sector as a homogeneous entity, leading to ineffective interventions. This misalignment results in conflicts and inefficiencies within the value chain. Policies and programmes from government institutions are also not adequately aligned to provide the subsector with coherent interventions.

v. **Limited access to Credit**: Smallholder farmers cannot source capital for plantation development thereby resulting in limited hectarage cultivated. Artisanal and industrial mills are unable to access funding to expand processing capacity and invest in efficient machinery.

3.6.4.2. Interventions

i. **Enhancing Farm Productivity**: This intervention will focus on providing farmers with superior planting materials to replace ageing, low-yield plantations with high-quality seedlings to significantly boost per-hectare output and revitalise underperforming farms to boost per-hectare output and revitalize underperforming farms significantly. This could be achieved by collaborating with large plantation entities that have invested in excellent nursery facilities and have high-quality, high-yielding Tenara variants available. Under the FGP, we aim to increase oil palm yield from the current 6.0MT/ha to 10.0MT/ha by 2028 (see table 19).

ii. **Revolutionizing Farmer Education**: The programme will transform extension services through hands-on, community-based training on sustainable best practices in production-related activities, oil extraction, and planting material selection, while leveraging digital tools (e-extension) to enhance farming practices and attract youth to the sector.

iii. **Strategic Land Expansion**: Under the farmland bank initiative, TCDA will develop additional 50,000 hectares of land with optimal growth requirements[16] and a mandatory 25% allocated to smallholder outgrowers, ensuring inclusive growth.

iv. **Modernizing Processing Capacities for CPO and Palm Kernel Oil**: Artisanal mills require urgent upgrades to their equipment. The programme will improve technology and practices to elevate oil extraction rates from the current 12% to a more competitive 18%. This is expected to drastically increase production while reducing free fatty acids (FFAs), particularly for consumers.

v. **Strengthening Regulatory Frameworks**: Protecting our domestic industry demands strict enforcement of quality standards. Under the FGP, TCDA will lead coordinated efforts with regulatory bodies to prevent the market flooding of substandard imported CPO and refined derivatives that undermine local producers.

vi. **Building Sustainability Competence**: As international markets impose stricter environmental requirements, the programme will equip all value chain actors with comprehensive knowledge of the EU Deforestation Regulation (EUDR), the RSPO standards, and relevant national standards for local consumption. This will be achieved through structured training programmes and certification support to ensure sustainable production practices across both export and domestic markets.

vii. **Promoting Inclusive Participation**: The FGP will aggressively target and empower women through farm ownership opportunities and processing cooperatives, while creating youth-oriented agribusiness ventures, such as farm management services, that combine input supply with extension support.

viii. **Developing Financial Solutions**: The Government in collaboration with financial institutions and development organizations will build upon successful financing models and arrangements and create tailored financial products for each segment of the value chain in addressing the funding gap.

ix. **Promoting Market Access and Demand for Oil Palm Products**: To enhance the profitability and sustainability of oil palm production, structured markets for Fresh Fruit Bunches (FFB) trading will be established through collaboration with all actors along the oil palm value chain, facilitated by TCDA and other relevant institutions.

16 Optimal growth requirements include rainfall, temperature, sunshine levels as well as soil requirements.

Table 19: Production Targets for Oil Palm from 2025-2028

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	National Demand for value addition (Mt)	Total Consumption	Surplus/ Deficit (Mt)	Production Target (Mt) CPO
2024 (Baseline)*	350,000	6	2,100,000	300,000	450,000	150,000	300,000
2025	355,000	7	2,485,000	310,000	450,000	-140,000	365,000
2026	375,000	8	3,000,000	365,000	475,000	-100,000	448,000
2027	395,000	9	3,555,000	448,000	500,000	-52,000	504,000
2028	400,000	10	4,000,000	504,000	520,000	-16,000	600,000

Source: MoFA (2025) * Provisional

3.6.5. Shea Value Chain

The shea industry is a vital and growing sector within Ghana's agricultural economy, particularly benefiting communities in the northern regions. Renowned for its high-quality shea nuts and butter, Ghana is one of the world's leading producers and exporters. The industry plays a crucial role in rural development and women's empowerment, providing livelihoods for an estimated 470,000 women engaged in the collection, processing, and trade of shea products.

3.6.5.1. Issues and Challenges

i. **Accessibility to Sheanuts**: Poor infrastructure, such as poor road networks, makes it hard to access the shea parklands. There is inconsistency and inadequate supply of raw material for value addition. Shea nuts are only available for a limited period each year, which restricts their supply coupled with hazardous challenges of snake bites and lack of appropriate PPEs. Shea trees are being cut to make way for farmland, reducing the long-term supply. Collectors often lack proper tools for efficient harvesting and drying. Women collectors often receive minimal income despite doing most of the work.

ii. **Low Primary Processing**: Use of labour-intensive methods for processing, for example, manual roasting, milling, and kneading are time-consuming and physically demanding. Traditional methods often result in low butter yields and variable quality. Poor processing conditions can lead to contamination. Small processors struggle to afford better equipment or improve processes.

iii. **Limited price information**: Global demand keeps fluctuating, affecting prices for both nuts and butter. Many producers and traders lack timely information on prices and buyers. Some intermediaries do not offer remunerative prices to producers. Also, the fragmented producer groups limits bargaining power and efficiency.

iv. **Policy and Institutional Gaps**: Quality standards and grading systems are poorly enforced. There is limited government support in terms of incentives for investment or innovation. Complex Customs procedures (export) and high logistics costs reduce competitiveness.

v. **Gender and Social Barriers**: Limited ownership/control - women are major players in the chain but have little control over land, finance, or decision-making in shea producing areas. The contribution of women is often undervalued, leading to unequal benefit-sharing.

3.6.5.2. Interventions

Strategic areas for the Shea value chain includes: (i) Sustainability: Replanting, protecting shea parklands, climate-smart agriculture; (ii) Value Addition: Boost local processing capacity to export butter, not just nuts; (iii) Gender Inclusion: Support women-led shea cooperatives with training and tools; (iv) Market Expansion: Access EU, US, and Asian cosmetic and food sectors; (v) Policy Support: Incentives for exporters, processors, and farmers. The FGP targets an annual 10% growth in Shea production over the programme period (see table 20) through the following intervention areas:

i. **Improved Infrastructure** (Roads, Warehousing, Processing Facilities): Areas where sheanut trees are, will be mapped to guide in constructing and rehabilitating of rural roads to improve access to shea nut collection areas and the development of storage and warehousing facilities with proper ventilation and pest control. There will also be support for the establishment of modern shea processing centres (e.g., with solar dryers, crushers, and boilers).

ii. **Boosting Productivity and Quality of Shea Nuts**: Training programmes for women collectors and farmers on best practices in harvesting and post-harvest handling will be organised. Improved tools and equipment (e.g., nut crackers, solar dryers) will also be distributed to women farmers. The government will promote sustainable parkland management and tree planting.

iii. **Create Access to Finance:** Microfinance and cooperative funding schemes tailored for women and smallholder processors will be created under the programme. Capacity building in financial literacy and business planning will be organised, and the Government will make available subsidised equipment, loans and revolving funds to farmers.

iv. **Improved Market Access and Linkages**: The government will facilitate market linkages through trade fairs and buyer-seller forums for farmers. There will also be the creation of digital platforms for marketing and sales. The programme will also provide certification and branding support (e.g., organic, Fairtrade).

v. **Policy and Institutional Support**: FGP will work through the TCDA to develop new groupings and strengthening existing shea cooperatives and associations.

vi. **Mitigate Environmental and Climate Challenges**: Climate-smart agriculture training will be organized for value chain actors. Additionally, reforestation and conservation projects targeting shea landscapes will be enhanced. FGP will establish monitoring systems for climate impacts and adaptive planning.

Table 20: Production Targets for Shea from 2024-2030

Years	Area (Ha)	Growth Target (%)	Production (MT)
2025	170,000	-	Baseline year investment in processing centres and farmer training
2026	187,000	10%	Expand aggregation centers, promote sustainable collection
2027	205,700	10%	Introduction of incentives, improved quality standards
2028	226,270	10%	Enhance market linkages, support women cooperatives
2029	248,897	10%	Scale up exports, attract private investments
2030	273,786.7	10%	Review and consolidate progress, integrate digital traceability

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Source: MoFA (2025) * Provisional

3.6.6. Mango Value Chain

Mango is one of the key produce of Ghana's fruit sector, alongside pineapple, citrus and banana. The industry is currently blighted with poor and erratic harvests, pests, and diseases, and has very low yields. However, current mango output per annum is estimated to be 98,500 Mt. Mangoes are produced in three main areas: the southern belt (Eastern, Greater Accra and Volta Regions, where the export-oriented mango cultivation commenced), the middle belt (Bono East, Bono and Ashanti Regions) and the northern belt (Northern, Upper East and Upper West Regions, where commercial orchards have taken root since the early 2000). While the subsector holds considerable economic potential, it faces various challenges that hinder its full development.

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3.6.6.1. Issues and Challenges

The challenges of the subsector include:

i. **Weak market linkages**: Ghanaian mango producers and exporters aim to establish reliable market niches. Exporters face marketing challenges including: (i) Stringent sanitary and phytosanitary requirements (ii) No entity representing exporters in destination markets (iii) Over-reliance on Europe markets limiting diversification (iv) Small and underdeveloped local market unable to absorb surpluses

ii. **Logistical bottlenecks affecting mango quality and export costs**: Despite infrastructure development, the transportation of mangoes in Ghana still faces significant logistical problems. These include: (i) poor infrastructure, especially poor road conditions, negatively affects mango quality (ii) the use of inappropriate vehicles for transporting fruits from farms to packhouses (iii) lack of refrigeration facilities, resulting in losses and inferior product quality (iv) high freight charges due to insufficient export volumes.

iii. **High Incidence of Pest & Diseases**: Effective production and post-harvest practices are important for the mango sector in Ghana, where post-harvest losses are estimated to be between 20 and 50 percent. The main reasons for these losses include the prevalence of fruit flies and diseases like Bacteria Black Spot and Anthracnose, coupled with insufficient cold chain facilities and extended transit times.

iv. **Limited Access to Credit Facilities**: Access to credit remains a significant barrier to the growth and development of the mango subsector in Ghana. Despite the sector's growing economic potential and increasing demand for mango and its derivatives, many actors, particularly smallholder farmers, processors, and agro-based entrepreneurs, face severe difficulties in obtaining the financial resources needed to expand operations, adopt improved technologies and invest in value addition. This is due to unmitigated production-related risks. As a result, most processing remains at the cottage or artisanal level, which in turn limits competitiveness in export markets. Limited access to credit also hinders farm expansion and its modernization.

v. **Low Adoption of Good Agronomic Practices (GAPs)**: Many farmers have limited knowledge of mango farming techniques or rely on traditional methods that are often outdated and inefficient. This challenge is further compounded by the limited access to agriculture extension services by farmers due to the low farmer-to-extension agent ratio.

vi. **Weak Linkages Between Value Chain Actors**: The mango subsector in Ghana exhibits fragmented and poorly coordinated relationships among key value chain actors. Weak linkages and inadequate collaboration undermine the subsector's ability to grow, innovate, and respond to both domestic and international market demands. Farmers often lack access to timely market information, improved technologies, input recommendations, and quality requirements for their produce. Meanwhile, processors and buyers struggle to obtain consistent, quality raw materials. Research institutions and universities are not effectively linked with producers and processors, creating a disconnect between research outputs and practical application. Similarly, financial service providers are not well-integrated into the mango value chain, leading to gaps in financing and risk mitigation. This makes it difficult for farmers and processors to access suitable credit and financial products, further weakening the business environment.

vii. **Low Farm Productivity**: Despite the favourable agro-ecological conditions supporting mango production across the country, the average yield per acre of 4 Mt/Ha remains below the optimal levels of 10 Mt/Ha. This underperformance limits farmers' incomes, discourages private investment, and weakens Ghana's competitive edge in regional and global markets.

3.6.6.2. Interventions

i. **Enhance Access to Improved Planting Material**: Addressing this challenge through coordinated efforts through TCDA in collaboration with research institutions, DPs, and private actors is crucial for driving growth, resilience, and export potential. Key interventions include supporting the establishment and expansion of mango seed and scion banks, as well as certified nurseries, nationwide. Seed systems will also be strengthened by linking research institutions with commercial producers. To improve accessibility for smallholder farmers, seedling subsidies and support from TCDA and other relevant agencies

will be provided. Extension services and awareness campaigns will also be undertaken.

ii. **Enhance Processing Capacity**: Promoting value addition in the mango subsector requires strategic interventions to support the expansion and modernization of processing capacity. Local entrepreneurship will be incentivized through targeted training and grant support to upgrade small-scale processing operations. Investment in research and innovation will be prioritized to develop new mango products and appropriate, cost-effective processing technologies. Additionally, the supply chain of mangoes for processing must be strengthened and enhanced to ensure consistency in supply.

iii. **Improve Distribution and Commercialization for Enhanced Mango Competitiveness**: Key interventions include supporting the compliance of stringent sanitary and phytosanitary requirements in destination markets and establishing a strong entity, with the support of TCDA, to represent the interests of exporters in those markets.

iv. **Enhance Logistics for the Mango Sector**: Under the programmes, TCDA will facilitate necessary investments in improving Ghanaian infrastructure, such as feeder roads connecting production areas to markets, and enhancing access to and reliability of electricity.

v. **Improve Mango Production and Post-Harvest Practices**: In collaboration with research institutions and Academia, this intervention will focus on building the capacity of value chain actors to enhance mango productivity through the adoption of improved varieties, best agronomic practices, and effective pest and disease management. It will also strengthen post-harvest handling, including proper harvesting, sorting, storage, and packaging techniques, to reduce losses and improve market quality.

vi. **Improve Access to Credit**: Enhancing access to finance in the mango sector will require a multifaceted approach involving several key actions. The programme will (i) promote agricultural financing schemes through collaboration with DPs, MDAs, and financial institutions to establish dedicated funding mechanisms tailored to the needs of mango value chain actors (ii) strengthening the capacity of farmers and processors through financial literacy training and business development services will enhance their credit readiness and ability to manage funds effectively (iii) de-risk agricultural lending through tools such as crop insurance and credit guarantee schemes. (iv) facilitate group-based lending through the formation and capacity-building of Farmer-Based Organizations (FBOs) and cooperatives

vii. **Promote Good Agronomic Practices (GAPs)**: Effective extension and outreach systems will be strengthened to enhance knowledge and adoption of GAPs in the mango subsector, through: (i) increasing the number of AEAs and increasing their training through TCDA, private extension providers and community-based extension agent models to address the deficit. (ii) establishing Farmer Field

Schools and tree crop development centers to promote hands-on training and peer learning at the community level (iii) developing and disseminating Information, Education, and Communication (IEC) materials, including brochures, videos, and posters in local languages, to help spread GAP messages in a user-friendly format (iv) using Digital tools such as mobile technology and radio programmes to expand outreach (v) Collaboration with FBOs to organize regular training sessions and mentorship programmes to ensure sustained capacity building at the grassroots level.

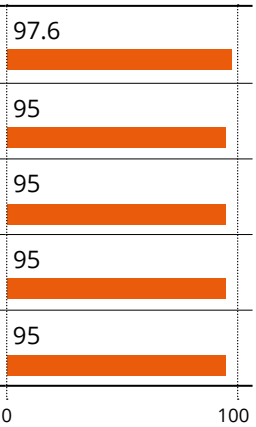
viii. **Strengthen Linkages Between Value Chain Actors**: Establishing and strengthening multi-stakeholder platforms is necessary to facilitate regular engagement among stakeholders, including forums, business-to-business meetings, and activities of mango industry associations. Such platforms provide opportunities for dialogue, knowledge sharing, and joint problem-solving. Building the capacity of the National Mango Farmers Association is the key to supporting coordination and promoting linkages of all actors, which will be achieved by TCDA through collaboration with the Ministry and DPs. Modern tools will be harnessed through the development of digital value chain solutions, leveraging ICT platforms for sharing market information, product traceability, and coordination among stakeholders.

ix. **Improve Farm Productivity**: This will be achieved through a combination of actions, including farm rehabilitation with improved varieties and better access to quality inputs. Also, effective pest and disease management, along with support for small-scale irrigation, especially in drought-prone areas, will be pursued to boost and sustain yields. The FGP targets a yield increase from 12MT/ha at baseline in Mango production to 17MT/ha over the programme period (see table 21).

Table 21:Production targets for Mango from 2024-2028

Years	Area (Ha)	Yield (MT/Ha)	Production (MT)	National Demand for Value Addition	Total Consumption	Surplus/ Deficit (Mt)	Production Target (Mt)	Self-sufficiency (%)
2024 (Baseline)*	90,000	12	1,080,000	26,000	26,000	1,054,000	900,000	97.6
2025	100,000	14	1,400,000	70,000	70,000	1,330,000	100,000	95
2026	110,000	15	1,650,000	82,500	82,500	1,567,500	1,300,000	95
2027	115,000	16	1,840,000	92,000	92,000	1,748,000	1,500,000	95
2028	120,000	17	2,040,000	102,000	102,000	1,938,000	1,800,000	95

Source: MoFA (2025) * Provisional



3.7. Sub-Programme 7: Agro-Production Enclaves and Irrigation Development

This sub-programme consists of two components, namely, Agro-Production Enclaves and Irrigation for Wealth Creation.

3.7.1. Component 1: Agro-Production Enclaves

The Agro-Production Enclave (AgPE) is a strategic initiative under the Feed Ghana Programme, designed to accelerate agricultural transformation and enhance food security in Ghana. It is described as a large, contiguous tract of arable land of at least 300 ha, designed and developed as an integrated area within which agro-industrial zones and farmers' service centres are located. The enclave is a mixed-use economic space that seeks to create a viable ecosystem with critical infrastructure and services to support large-scale commercial production and value chain integration for both crop and livestock.

Each enclave will be equipped with irrigation systems, FSCs, agro-processing, silos, warehousing facilities, rural roads and power supply creating an enabling environment for private sector investment. The AgPEs will be allocated to Commercial/Anchor farmers to work with smallholder farmers, including women and youth, adopting "Outgrower and Ingrower" production systems. This will ensure increased innovative production such as greenhouses and market access for smallholder farmers, with special focus on women and youth by facilitating access to modern facilities, training, and market opportunities. The initiative will build on existing Agro-Industrial Zones established to support medium- to large-scale farming.

Collectively, these interventions aim to modernize Ghana's agricultural landscape, drive agro-industrialization, and foster sustainable livelihoods across the sector. A total of 100,000 ha of land will be developed within the four years with 25,000 ha annually.

3.7.1.1. Rationale

The creation of Agro-Production Enclaves represents a strategic and transformative response to longstanding structural inefficiencies in Ghana's agricultural sector. This initiative is designed to establish coordinated, investment-ready agricultural zones that can catalyze productivity, attract private sector participation, and stimulate rural economic development.

One of the primary challenges it addresses is the highly fragmented nature of smallholder farming systems, which has constrained economies of scale, made mechanization difficult, and limited farmers' access to consistent markets. By consolidating production within defined enclaves, farmers can pool resources, benefit from shared services, and operate more efficiently.

In addition, the enclaves aim to address the limited access to irrigation, quality inputs, and modern agricultural technologies, which have suppressed yields and reduced resilience to climate variability. Within these zones, infrastructure for irrigation and mechanized services will be developed and managed more sustainably.

Poor road networks and market access have historically isolated rural farming communities, increasing the cost of transport and reducing farmgate prices. Agro-Production Enclaves provide an opportunity to integrate road improvements and logistics infrastructure that directly link farms to markets, processors, and urban centres.

Another pressing issue is the inadequate post-harvest and storage facilities, which results in significant crop losses and reduced incomes for farmers. The enclave model enables the co-location of aggregation centres and cold storage facilities, enhancing the efficiency of the supply chain and maintaining the quality of produce.

Weak linkages between production and agro-processing are also a challenge and hinders value addition. The enclave concept promotes spatial proximity between producers and processors, thereby enhancing coordination, reducing transaction costs, and facilitating the industrialisation of the agricultural sector.

Finally, youth unemployment remains high especially in rural areas. Agro-Production Enclaves offers a viable pathway for inclusive job creation by modernizing agriculture and making it more attractive to the youth through organized value chains, skills development, and enterprise support.

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3.7.1.2. Key Objectives

The Agro-Production Enclaves initiative seeks to:

i. Promote all-year-round commercial and irrigated agriculture to increase productivity and food security.
ii. Enhance private sector participation in agriculture through targeted investment incentives and infrastructure.
iii. Create employment opportunities, particularly for the youth, women, and persons with disabilities.
iv. Facilitate agro-industrialization and value addition through structured production and processing systems.
v. Strengthen climate resilience and reduce post-harvest losses through the adoption of modern infrastructure and technology.
vi. Promote export-oriented agricultural commodities by facilitating logistical infrastructure within the AgPE to enhance competitiveness in national and international markets.

3.7.1.3. Target Beneficiaries

The AgPEs are expected to benefit a broad spectrum of actors within the agricultural value chain, including anchor farmers and commercial producers, smallholder farmers, youth and women entrepreneurs, input suppliers and machinery operators, aggregators, processors, marketers, persons living with disabilities (PLWDs), private investors, and agribusiness firms. The programme prioritizes inclusivity by ensuring access to land, inputs, and markets for marginalized groups and access to pumps for smallholder farmers.

3.7.2. Component 2: Irrigation for Wealth Creation

The Irrigation for Wealth Creation (IWC) is one of the initiatives under the Feed Ghana Programme, focusing on expanding irrigation access across Ghana. The project seeks to expand irrigation coverage to support consistent agricultural production throughout the year, enhance the production of raw materials to support the government's 24-hour Economic Policy, and generate job opportunities, particularly for the youth.

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Under this component, existing irrigation schemes will be rehabilitated and expanded (ref to table 6), while new ones will be developed. Some of these schemes will be integral to the AgPE. The IWC will be implemented in phases across the country with a total of 11,493 ha developed. The initial project sites are shown in Appendix 7.

3.8. Sub-Programme 8: Innovative Agricultural Financing

3.8.1. Introduction

Agriculture remains the backbone of Ghana's economy, contributing 22% of GDP and employing 38.3% of the workforce (GLSS 7). According to the Bank of Ghana's January 2025 Monetary Report, credit to primary agriculture (production) accounted for only 4.7% of total credit in 2024, up slightly from 3.9% in 2023. These figures exclude lending to large-scale processors, manufacturers, and related service providers, even though many of them provide financing to smallholder farmers integrated into their supply chains. This limited financing of the sector remains a significant barrier to investment, productivity, and overall growth in Ghana's agricultural sector and reduces farmers' ability to adopt modern technologies and manage risks.

Another agricultural financing gap is low insurance penetration, with less than 5% of Ghanaian farmers currently covered by any form of insurance protection (Ghana Insurers Association, 2024). This exposes the majority of producers to shocks such as climate change, pest outbreaks, and market volatility that can wipe out entire seasons' investments. Smallholder farmers, who constitute 80% of agricultural producers, face the greatest vulnerabilities, with women farmers, representing 52% of the agricultural labour force, being particularly disadvantaged (IFAD, 2023).

In sub-Saharan Africa, farmers face prohibitive interest rates and collateral requirements that exclude most small-scale operators, with only 15% of smallholders reported to have access to credit. Women farmers receive 10% of agricultural loans, further limiting their productivity and resilience (IFAD, 2023). The combination of limited financing and inadequate risk management tools creates a vicious cycle, that keeps farmers trapped in subsistence-level production and discourages investment.

Several factors contribute to the limited agricultural lending in Ghana. The main issues are the low share of total credit allocated to agriculture and high risk associated with agricultural lending due to weather variability, pests, diseases, low yields, impacting revenue and jeopardizing repayments.

The Feed Ghana Programme (FGP) seeks to address these interconnected challenges through an integrated financial inclusion strategy that combines concessional credit, risk-sharing mechanisms, and innovative insurance products. By promoting tailored financial solutions that address both access to capital and risk mitigation, the programme will transform Ghana's agricultural sector into a more productive, resilient, sustainable and commercially viable engine of economic growth.

3.8.2. Challenges

Ghana's agricultural sector faces low investment and poor access to finance which hinder its growth and modernization. This is contributed by the following challenges:

i. **High cost of borrowing**: A significant constraint is the high interest rates, which is based on the Ghana Reference Rate and more than often priced close to inflation and unaffordable for most small-scale farmers.

ii. **Production-Related Risk in Agriculture**: Unpredictable weather, pest outbreaks, and volatile market prices and other risks make agriculture a high-risk sector for lenders.

iii. **Unattainable collateral requirements by small-scale farmers**: Financial institutions may, depending on the credit history and assessment of credit risk, often demand land titles or property deeds as collateral for loans, which most farmers do not have because they work on communal or undocumented family lands. This challenge is more limiting to the youth, women and PLWD who face additional barriers to land ownership due to socio-cultural norms in some parts of the country.

iv. **Limited Access to Financial Institutions**: In many rural areas, where the majority of agricultural production takes place, access to formal banking services remains limited. Consequently, farmers are often forced to rely on informal lenders who typically charge excessive interest rates and impose unfavourable repayment conditions. While Rural and Community Banks (RCBs) have traditionally served as a financial lifeline for rural economies, they have not been able to adequately fill the gap. Factors inhibiting access to rural banks include limited capital, underdeveloped outreach infrastructure, and inadequate risk assessment tools tailored to agriculture.

v. **Gender disparities**: Although women and youth play a vital role in farming and agribusiness, they receive a disproportionately small share of agricultural credit (10%). This disparity is driven by cultural biases, lower financial literacy, and limited participation in farmer groups, which hinders the growth of women- and youth-led enterprises.

vi. **Limited Financial Literacy**: Farmers lack adequate financial literacy regarding banking procedures, financial management, and loan applications, further restricting their access to agricultural finance.

vii. **Poor record-keeping by farmers and other value chain actors**: Farmers have poor farm records on their activities, which make it difficult for financial institutions to assess their capacity and performance for financing.

viii. **Lack of Affordable Agricultural Insurance Products**: Currently, the agricultural insurance space remains underdeveloped and significantly undersubscribed (5%), resulting in unaffordable premiums for most farmers. While tailored products are available, uptake is hindered by absence of accurate weather reporting systems, lack of incentives for both insurers and farmers to participate in the market, and inadequate awareness of products.

3.8.3. Interventions

The Feed Ghana Programme (FGP) recognizes that transformative agricultural growth cannot be achieved without addressing these systemic financing gaps. Innovative financial solutions are crucial for de-risking lending, enhancing credit accessibility, and unlocking crucial investments across the agricultural value chain. Interventions to address financing gaps include:

i. **Concessional and Blended Financing**: Government will facilitate Developmental Financial Institutions (DFIs) and projects such as Ghana Agricultural Risk Management (GhARM) to develop blended and concessional financing facilities to support farmers and other value chain actors. FGP will also collaborate with the Exim Bank to provide low-interest loans to farmers, cooperatives, FBOs and agribusinesses, prioritizing import substitution and export-oriented and value-added projects. Women and youth will be targeted to ensure gender balance.

ii. **Mitigating Lending Risks**: The Ghana Incentive-Based Risk-Sharing Systems for Agricultural Lending (GIRSAL) has been designed to provide credit risk guarantees to financial institutions lending to agriculture. It also provides technical support to lending institutions to enhance their knowledge and understanding of the agricultural sector and strengthen their capacity to assess and structure agribusiness loans to benefit agribusinesses. Since 2019, GIRSAL has guaranteed agricultural loans totalling 1.48 billion Ghana Cedis. FGP will collaborate with GIRSAL to expand guaranteed funds and build capacity of Financial Institutions to lend more to agriculture.

iii. **Committing Commercial Banks to lend to Agriculture**: The Feed Ghana programme (FGP) will advocate for commercial banks to invest at least 8% of deposits to facilitate agricultural initiatives.

iv. **Ghana Commodity Exchange (GCX)**: The Ghana Commodity Exchange (GCX) will be supported with warehouse and other logistics, as well as funding, to enhance trading in selected commodities.

v. **Agricultural Insurance:** Agricultural insurance premiums should be subsidized by the government, similar to practices in other countries, to reduce the financial burden on farmers and promote wider adoption. The FGP will collaborate with the National Insurance Commission, which is developing a fund to ensure that government support includes both premium subsidies for farmers and incentives for insurance firms. The government will explore opportunities of bundling insurance with other services to promote adoption of products and lending by banks leveraging on on-going initiatives such as the GhARM project. Through collaboration with Bank of Ghana, Financial Institutions, National Insurance Commission, and Insurance firms; agricultural insurance coverage is targeted to expand from 5% to 10% of Ghana's farming population by 2028.

vi. **Interest Rate Subsidy**: The interest rate subsidy reduces the cost of borrowing, which is attractive to farmers and also mitigates the risk of default, making it more attractive to banks. This intervention aims to support farmers who repay their loans on schedule. GIRSAL will be resourced to continue with the interest rate subsidy programme.

vii. **Input Credit System**: Under the FGP, agricultural inputs and services will be provided to farmers on a credit basis. This is aimed at easing the challenges farmers face in accessing credit.

3.8.3.1. Agricultural Lending Targets from 2025-2028

At the core of the sub-programme's financial targets is the goal to significantly increase investment in agriculture.

The programme seeks to reach a target of 10% in total bank credit to the agricultural sector in 2028, up from 3.5% in 2024 (table 22). This will be achieved by the interventions outlined above.

Table 22:Agricultural Lending Targets Matrix (2025-2028)

Key Performance Indicator	Baseline (2024)	2025	2026	2027	2028
Percentage of Farmers with Insurance Coverage	5%	8%	10%	13%	15%
Percentage of Total Bank credit to Agriculture	3.5%	5%	6.5%	8%	10%
Loans Disbursed Under GIRSAL Guarantees (GHS million)	288.5	412.1	535.8	659.4	824.3

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3.9. Sub-Programme 9: Institutional Development and Management Research

Effective institutional capacity is the backbone of sustainable agricultural development. The transformation of Ghana's agriculture sector hinges on the functionality, responsiveness, and resilience of key public institutions tasked with delivering critical services. Management research is critical in understanding the dynamics that shape effective institutions and the practices that lead to efficient and accountable management. Under the FGP, institutional development and management research is key to the development of agri-food systems. This sub-programme has two (2) components.

3.9.1 Component 1: Institutional Development and Regulatory Framework

The implementation of the FGP requires specific actions by different agencies and actors in the agricultural sector. The capacity of these actors to perform their assigned roles and responsibilities is essential for the full realization of the goal of the FGP. The ministry and the decentralised department of agriculture have low staff numbers and limited requisite skills to deliver services effectively. Planned actions will be undertaken under the FGP to enhance the capacity of all actors relevant to the implementation of the programme based on evidence from the needs assessment conducted.

MoFA performs regulatory functions through its agencies such as Plant Protection and Regulatory Services Directorate (PPRSD), Veterinary Services Directorate (VSD), Animal Production Directorate (APD), Tree Crops Development Authority (TCDA), Directorate of Crop Services (DCS) and Ghana Irrigation Development Authority (GIDA). Strengthening structures in these regulatory agencies is imperative for the success of the Feed Ghana Programme. In this regard, the FGP outlines specific actions and interventions to be undertaken.

3.9.1.1 Interventions

i. **Staff Recruitment**: The Ministry will recruit 1,000 personnel to fill existing vacancies in the MoFA agencies and replace retiring personnel over the programme period. Attention will be given to qualified female applicants.

ii. **Strengthening Capacity of MoFA and other Actors**: Under the FGP, capacity development of actors in various commodity value chains will be vigorously pursued to increase efficiency, productivity, and ultimately, production, towards achieving the expected outputs and outcomes. This will target service providers, producers, processors, and technical staff. The capacity development will be undertaken through the engagement of requisite subject matter experts and specialists. The Ministry will provide training opportunities for staff to upgrade their skills on periodic basis through both academic and on-the-job training programmes. This approach will ensure that staff are equipped with the necessary knowledge and expertise to meet the evolving demands of their roles in the FGP.

iii. **Strengthening Specialised MoFA Institutions**: Under the programme, GIDA, VSD, DAES, APD, NAFCO, and GLDB will be restructured and retooled to meet the demands of a modern, inclusive, and market-oriented agricultural system.

   a. **Strengthening the Ghana Irrigation Development Authority (GIDA)**: The restructuring of GIDA is critical to reposition it as a lead agency for driving climate-resilient and commercial irrigation systems in Ghana. This will involve streamlining its governance structure, upgrading technical capacity, and modernizing infrastructure to respond to current and future irrigation demands. Strengthening GIDA will enhance its ability to design, implement, and manage irrigation schemes that are scalable, sustainable, and aligned with regional agro-ecological priorities.

   b. **Strengthen and Resource Institutions Responsible for Grains Warehousing and Promote Private Participation**: To ensure efficient post-harvest management and reduce losses, institutions overseeing grain warehousing will be restructured and adequately resourced to operate with modern systems and standards. These reforms will facilitate the integration of private sector participation through public-private partnerships (PPPs), thereby increasing investment in grain storage infrastructure. The improved warehousing system will support structured markets, stabilize prices, and ensure food availability throughout the year.

   c. **Strengthening Veterinary Services Directorate (VSD)**: The Veterinary Services Directorate will be upgraded to an Authority, providing it with the autonomy, mandate, resources required to enforce veterinary regulations and deliver high-quality animal health services nationwide. This transition will allow for better coordination of disease surveillance, livestock vaccination,

and veterinary public health interventions. As an authority, VSD will be better positioned to engage regional and global partners in addressing zoonotic and transboundary animal diseases and improving Ghana's livestock and poultry sector competitiveness.

d. **Strengthening the Directorate of Agricultural Extension Services (DAES)**: The FGP seeks to improve agricultural extension services to farmers by engaging private extension service providers and National Service Personnel to augment the relatively low AEA to farmer ratio. To validate and recognize these actors in the extension delivery space and ensure improved quality of service as well as the professional conduct by personnel, DAES will be strengthened to enact the Agricultural Extension Services Act aimed at regulating extension service delivery and recognizing private service players.

3.9.2 Component 2: Management Research & Development

The component focusses on Sustainable Food & Agriculture Systems Management Research & Development (SFASMRD) for the Feed Ghana Programme. It seeks to apply, Organizational, Managerial and Leadership principles and practices to review, monitor and evaluate the implementation of the feed Ghana programme focusing on the five sub-systems of the Food and Agriculture System (FAS). It will deploy Management Research & Development (MR&D) knowledge creation & problem-solving approaches to inform decision making and improve efficiency and effectiveness of the FGP whiles ensuring it's sustainability.

3.9.2.1 Issues to be addressed by this research

i. Limited organisational management and leadership capacities for effective transformation of the food and agriculture system.

ii. Limited application of management research and development principles and practices in programme implementation for efficiency gains.

iii. Absence of a comprehensive research on challenges, opportunities and efficiency levels of the food system in Ghana spanning from production to waste management.

iv. Weak coordination of the food systems.

3.9.2.2 Interventions

A. Management Research & Development in the FGP

The intervention focuses on use of MR&D principles to ascertain how businesses and their Managers and workforces in implementing the Feed Ghana Programme are expected to effectively and efficiently perform the three main jobs of Management:

- Managing a business;
- Managing managers;
- Managing workers & works.

Thus, research will be conducted on how businesses organize, lead and manage their enterprises drawing on MR&D knowledge creation & problem solving. This will be deployed along the agriculture value chain from production; processing; distribution & marketing; consumption; and waste management systems, to identify opportunities that attract investment into the sector.

It will also identify ineffectiveness and inefficiencies in resource use under complex organizational environments to inform equitable and sustainable investments food and agriculture sector.

B. Capacity Building and Dissemination of Research Results

The second intervention of this component will focus on building the capacity of businesses, organizations, managers, leaders, and workforces, drawing on the results from the MR&D intervention. It will promote advocacy and the dissemination of the MR&D outcomes to all relevant stakeholders, especially policy makers and investors in the FAS of Ghana.

C. Review, Monitoring & Evaluation of the FAS of Ghana.

To ensure that the results of the MR&D work feed into decision making and investments, the third intervention of the component will monitor and evaluate outcomes which can feed into further research that ultimately contributes to greater efficiency in the in the implementation of the Feed Ghana Programme. It will regularly review the extent of the implementation of the recommendations of the research programme focusing on the five sub-systems of the FAS of which are production, processing, distribution & marketing, consumption, and waste management.

3.9.2.3 Implementation Strategy

A. Scope and Management of Research

- One Management Research Fieldwork Supervisor will be deployed in each district and each region.
- One National Organizational Management & Leadership coordinator at the the Feed Ghana Programme Secretariat.

B. Sources of Financing the research

- The Government of Ghana;
- Research Grant Organizations;
- Development Project Finance Organizations, Countries and Partners ;
- Corporate Organizations, Banking & Non-Banking Financial Institutions;
- Sustainability Management & Sustainable Development Funds;
- Planned establishment of Sustainable Food & Agriculture Systems Management Research & Development Fund (SFASMRDF).

C. Results Reporting Strategy

- Periodic MR&D Programme Reports will be submitted to the Minister of Food & Agriculture through the FGP Coordinator and the Chief Director.
- Periodic MR&D Reports will also be submitted to Donor Organizations, Agencies and Partners as required.

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Section 4

Implementation Arrangements

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This section presents the arrangements for implementing and coordinating the FGP. It outlines the financing arrangement, resource mobilisation, monitoring and evaluation, communication and targeting within the FGP.

4.1. Implementation and Coordination Arrangements

The implementation of the FGP is structured to ensure coordinated and results-oriented delivery from policy to impact. The structure involves key stakeholders from government, research and academia, the private sector, civil society, and development partners to ensure the practical realisation of programme objectives through defined roles and responsibilities, sustainable partnerships, and strategic financing.

To ensure strategic oversight, technical direction and operational coordination, a three-tiered management structure will be adopted.

4.1.1. National Level

a. National Oversight Committee

The NOC will be established at the national level to provide strategic leadership and oversight, review programme progress, address policy issues, and ensure alignment with national priorities. This committee will be chaired by the Honourable Minister for Food and Agriculture, with Chief Director as a member and representation from the following institutions:

- Ministry of Food and Agriculture
- Ministry of Local Government, Chieftaincy, and Religious Affairs
- Ministry of Finance
- Ministry of Trade, Agribusiness and Industry
- Ministry of Environment, Science, Technology and Innovation
- Parliamentarians from the Select Committee on Agriculture and Cocoa Affairs
- National Development Planning Commission
- Representatives (3) from the private sector
- Apex Farmers Association (2)
- National Farmers and Fishers Award Winners Association of Ghana
- Civil Society Organisation
- Research and Academia
- Ministry of Youth Development and Empowerment
- Presidential Initiatives in Agriculture and Agribusiness, Office of the President

b. Technical Implementation Committee

A Technical Implementation Committee (TIC) will be constituted to support the NOC. The TIC comprises the Feed Ghana Secretariat, MoFA National Directorates and the Dean of Regional Directors of Agriculture. The Committee will be responsible for technical backstopping and performance tracking. This committee will be chaired by the Chief Director of MoFA.

c. FGP Secretariat

The Secretariat will be responsible for the day-to-day coordination of the programme. They will be involved in collating information, following up on issues arising from programme implementation and reporting on programme progress to the Chief Director. The FGP secretariat will be headed by a coordinator.

4.1.2. Implementation at the Decentralized Level

Task Force of the Feed Ghana Programme: The implementation of the FGP at the decentralised level will be overseen by a task force comprising 11-members. The Task Force in collaboration with the RADs and DADs will ensure seamless operations, address implementation challenges, and adapt the programme to the local situation. It will particularly oversee the Agro-production Enclaves, FSCs and report through the Chief Director of MoFA to the FGP secretariat. The District Chief Executive will oversee the task force.

The Committee will comprise the following;

1. District Chief Executive / Representative - Chairperson
2. District Director (District Department of Agriculture)
3. Representative of Farmers' Service Centres (FSCs)
4. District Management Information Officer
5. Representative of District Assembly Members
6. Representative, District Security Council
7. Representative, Peasant Farmers Association Ghana/Farmer-Based Organizations/Cooperatives
8. Representative, Aggregators/Offtakers/Commercial or anchor farmers
9. Traditional Authorities (Chief, Queen Mother, or Opinion Leader)
10. Feed Ghana Brigade[17]
11. Veterinary/APD Officer

The Feed Ghana Brigade under the Taskforce will provide agricultural services within the FSCs operational area. Farmer cooperatives will be formed at the community level to enhance access to services and sustainability of the programme.

17 These will be recruited under the national service agriculture module to provide agricultural services at the community level.

Regional Oversight Committee

At the regional level, an oversight committee will be constituted to supervise, monitor and coordinate implementation. The regional oversight committee membership chaired by the Regional Minister/representative will include:

1. Regional Minister/Representative
2. Regional Director of Agriculture
3. Regional Security Coordinator
4. Regional Coordinating Director
5. Representative, Regional House of Chief
6. Regional Veterinary Officer
7. Regional Best Female Farmer

4.2. Overall Targeting Of FGP

Under the FGP, a wide range of beneficiaries, such as small, medium and large-scale farmers, value chain actors, and institutions, are targeted with tailored interventions to support agricultural transformation, ensure food security, create sustainable employment, and enhance economic growth in Ghana.

FGP will encourage all farmers, particularly smallholders, women, youth, and persons living with disabilities, to form cooperatives to unlock access to critical government support, including mechanized services, financial products, subsidized inputs, training, and market linkages, ensuring collective growth and sustainability in Ghana's agricultural sector. The following beneficiaries will be targeted under the FGP:

Smallholder farmers, who form the backbone of the agricultural sector, will benefit from improved access to certified seeds, fertilizers, agrochemicals, and high-yield livestock breeds. They will also receive support through the establishment of Farmers' Service Centres and Farm Bank initiatives, as well as training in modern agricultural practices and extension services. These farmers will be included in input subsidy and credit schemes and linked to agro-industrial processors to ensure market access and reduce post-harvest losses.

Institutional farms, including those operated by schools, religious bodies, prisons, and security agencies, will benefit from subsidized inputs and financial assistance through credit schemes and grants. They will also receive technical support from agricultural officers and private extension providers, as well as capacity-building in proposal writing, loan applications, and financial management. Furthermore, institutional farms will play a key role in the Feed Industry Programme and the broader agenda for food self-sufficiency.

Agro-processors and agribusinesses will gain reliable access to raw materials from the prioritized commodity value chains, benefit from the development of agro-industrial zones, and participate in value chain integration efforts. They will also receive support for market development and value addition initiatives.

Research institutions will lead innovation in plant breeding, climate-resilient agriculture, water conservation, and postharvest handling, and will work in partnership with the government to deploy new technologies.

Local input manufacturers and suppliers will also be supported through policies that promote local procurement and participation in national distribution programmes, creating opportunities to expand the production of fertilizers, animal feed, and agricultural equipment.

Export-oriented farmers and agribusinesses will receive assistance in Production and processing high-value crops, such as mango, cashew, and oil palm, as well as support in meeting international quality standards, accessing global markets through the AfCFTA, and navigating certification and logistics systems.

Households will also be engaged in food and livestock production through initiatives that promote home, school, and community gardening, including training and starter packs for vegetable cultivation, as well as support for water harvesting and micro-irrigation. Together, these targeted interventions aim to build a resilient, inclusive, and export-driven agricultural economy.

Youth, women, and vulnerable groups are key targets of the FGP, recognizing their vital roles in agriculture and the barriers they face, such as limited access to land, credit, training, and decision-making power. The FGP addresses these challenges through gender-sensitive and youth-focused interventions, including specialized training, access to technology, mentorship, and financial support. The programme encourages youth participation in agribusiness, particularly in high-value commodities such as vegetables, grains, poultry, livestock, cashew, shea and oil palm. For women, it emphasizes empowerment through improved access to resources and support for crops they predominantly cultivate, such as soybeans, sorghum, and vegetables. Overall, the FGP aims to ensure that at least 40% of its beneficiaries are from these groups, using input credit and subsidy schemes to lower entry barriers and boost productivity.

FGP will encourage all farmers, particularly smallholders, women, youth, and persons living with disabilities, ***to form cooperatives*** *to unlock access to critical government support.*

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4.3. Financing Arrangements and Resource Mobilisation

The FGP is a government-led initiative providing necessary incentives and supporting catalytic funding to stimulate private sector investment in agriculture. Critical public investments in infrastructure, essential services, capacity building and structured incentives will be borne by the Government and Development Partners (DPs). Direct investment in value chain activities such as input supply, mechanisation services, production, marketing and processing will be the responsibility of value chain actors with the support of the government.

To successfully implement the FGP, a total estimated investment of GHS 302.21 billion will be required over the four-year period as indicated in Table 23. This funding will be mobilized through contributions from the Government of Ghana, private sector actors, Development Partners, and NGOs. The Government is expected to contribute approximately GHS 176.7 billion, representing 58.5% of the total investment. Through Private Sector Investment, the programme aims to leverage about GHS 42.4 billion from the private sector, accounting for 14% of the total.

Development Partners and non-governmental organizations are projected to contribute GHS 83.1 billion, representing 27.5% of the required funding. Their support will be channelled through grants, concessional loans and technical assistance.

Table 23: Total estimated investment

EXPENDITURE ITEM/YEAR	YEARS				TOTAL
	2025	2026	2027	2028	
GRAND TOTAL (GHS)	**42,141,560,789**	**69,664,787,550**	**85,601,869,884**	**104,799,928,206**	**302,208,146,430**
INPUTS	**9,227,843,118**	**13,621,283,738**	**21,081,981,334**	**32,982,018,557**	**76,913,126,747**
o/w Seeds / Planting Materials	1,396,429,432	2,624,961,179	4,285,954,767	6,617,493,050	14,924,838,428
Fertilizer	4,489,242,164	5,455,829,284	6,698,092,525	10,248,194,518	26,891,358,490
Agrochemicals	1,649,399,466	1,944,917,250	2,292,516,003	2,785,238,893	8,672,071,611
Poultry	1,543,378,960	3,592,434,296	7,599,008,798	13,326,227,233	26,061,049,286
Sheep	79,687,496	1,195,500	110,686,319	1,446,590	193,015,905
Goats	67,284,900	844,030	93,487,823	1,021,276	162,638,029
Pigs	1,412,500	907,500	998,250	1,996,500	5,314,750
Cattle (Dairy)	1,008,200	194,700	1,236,849	400,498	2,840,247
CAPITAL INVESTMENT (GHS)	**32,831,620,000**	**55,949,091,490**	**64,411,314,380**	**71,693,049,354**	**224,885,075,224**
o/w Land development	7,356,250,000	8,397,673,750	8,444,262,476	9,933,030,043	34,131,216,269
Infrastructure and Machinery	6,874,000,000	12,463,410,240	13,877,143,854	11,257,921,571	44,472,475,665
Irrigation Infrastructure	18,590,300,000	35,066,790,000	42,080,148,000	50,496,177,600	146,233,415,600
Storage Infrastructure	11,070,000	21,217,500	9,760,050	5,920,139	47,967,689
OPERATIONS (GHS)	**82,097,671**	**94,412,322**	**108,574,170**	**124,860,296**	**409,944,459**

4.4. Monitoring, Evaluation and Learning

To effectively track progress and ensure accountability, a comprehensive results framework has been developed. This framework outlines the programme's results chain and supports systematic monitoring of performance across outputs, outcomes, and impacts. It serves as a critical tool for generating evidence-based information to guide strategic decision-making and ensure the programme stays aligned with its overarching goals.

4.4.1. Theory of Change for FGP

The theory of change underpinning the FGP is grounded on the conviction that targeted investments in production systems, infrastructure, institutional capacity, and market linkages can enable Ghana to transition to a resilient, self-sufficient and export-oriented economy.

To achieve this vision, the programme deploys a set of strategic interventions across key areas: crop production, livestock development, infrastructure enhancement, and value chain strengthening. At its core, the programme prioritizes the provision of essential agricultural inputs, such as improved seeds and planting materials,

fertilizers, agrochemicals, animal feed, veterinary supplies, and breeding stock. These will be delivered through an integrated input distribution system, anchored by FSCs to ensure accessibility and timely delivery to farmers.

The expected outcomes of these interventions include improved productivity in both crop and livestock systems, reduced dependency on food imports, an expanded supply of raw materials for agro-industrial processing, enhanced household nutrition, increased agricultural exports, and meaningful job creation, particularly for the youth, women and PLWD. Collectively, these outcomes are intended to drive the long-term transformation of the sector, culminating in a resilient, food-secure, and industrialised agricultural economy that contributes significantly to Ghana's broader development agenda.

At its core, the programme prioritizes the provision of **essential agricultural inputs.**

This theory of change rests on several key assumptions: sustained political commitment, timely and adequate resource allocation, requisite human capital, commitment from the private sector, effective coordination among stakeholders, and the widespread adoption of climate-resilient practices.

4.4.2. Results Framework

Monitoring, Evaluation, and Reporting for the FGP will be institutionalized through a harmonized reporting format and a standardized set of indicators. Key development indicators are outlined in the FGP Results Framework (Appendix 9). The Policy Planning, Monitoring and Evaluation Directorate (PPMED) will collaborate closely with the Secretariat, the Statistics, Research and Information Directorate (SRID), technical directorates, and the decentralized Departments of Agriculture to coordinate data collection, analysis, and reporting on FGP initiatives.

MoFA will carry out annual performance reviews of the FGP in consultation with farmer cooperatives, development partners, private sector and civil society organisations and publish annual performance reports.

4.4.3. Integrated Data Collection and Management System For FGP

Data collection for the Feed Ghana Programme will be conducted using the MoFA Web-Based Portal, Ghana Agriculture and Agribusiness Platform (GhAAP) and other existing platforms. The GhAAP will serve as the central platform for data entry, storage, and reporting, with tiered access levels granted to users at the district, regional, national, and project levels.

4.4.4. Institutional Accountability Mechanism

In compliance with the regulations set by the Government of Ghana (GoG), all entities involved in the implementation of the Feed Ghana programme will be required to prepare periodic progress reports. This requirement will ensure the accountability of implementing partners. Each partner will report on the progress of the activities outlined in their respective work plans, as well as the level of achievement of targets and outputs. The District Agriculture Departments (DADs) will submit quarterly and annual reports to the Regional Agriculture Departments (RADs) to compile and forward to the Chief Director and relevant national directorates. Similarly, the national directorates will submit quarterly and annual reports to the Chief Director. The PPMED will be responsible for preparing quarterly and annual progress reports for the sector, incorporating input from all stakeholders.

4.4.5. Monitoring and Evaluation Plan

Monitoring and Evaluation (M&E) is a critical component of the Feed Ghana Programme, designed to ensure that implementation stays on track, resources are used efficiently, and objectives are achieved in alignment with national and subregional development priorities. The M&E framework provides a systematic approach for tracking progress, assessing performance, and generating evidence-based insights to inform decision-making at all levels.

A mid-term and end of programme evaluation will be carried out with the objectives of assessing the extent of programme implementation, lessons learnt and achievement of programme outcomes and impacts.

4.5. Communication Strategy

A communication strategy will be developed prior to programme launch to create awareness and sound understanding among all stakeholders on the details of the programme to achieve the following objectives:

i. Communicate effectively the goal, objectives and benefits of the programme to all stakeholders;
ii. Communicate stakeholder roles and responsibilities to secure ownership, commitment and accountability for sustainable implementation;
iii. Promote stakeholder participation, collaboration and coordination in the implementation of the FGP;
iv. Identify, develop and utilize appropriate communication channels, tools and activities to implement the programme; and
v. Disseminate timely, accurate, and reliable information on achievement, progress and opportunities of the programme to the public.

Communication Channels

a. Direct Stakeholder Contact

- Stakeholder engagement series
- Road shows
- Festivals and soccer games

b. Indirect / Mass Media Engagement

- Radio campaigns and interviews
- TV campaign and interviews
- Social media
- Outdoor visibility/ billboard campaign
- Match game branding

Stakeholder Engagement Series: This initiative will involve district-based focus group meetings that engage key stakeholders within the agricultural sector. The sessions aim to explain the program's scope, highlight opportunities, and encourage active involvement, turning stakeholders into advocates while identifying new business prospects.

Road Shows: To mobilize youth and farmers nationwide, especially those unreachable through traditional platforms, a dynamic road show initiative will be launched. A branded mobile team will tour key markets and rural hubs on market days using a music-equipped truck to attract crowds.

Festivals and Soccer Game Meetings: This will promote the FGP by having representatives speak alongside chiefs at festivals and durbars, supported by booths for consultations, brochures, and follow-up service links. In partnership with the National Youth Authority, branded booths will be established and announcements made at the stadia during football matches. This will ensure both community leaders and young people understand the programs, their investment and farming opportunities, and can engage directly for further support.

Mass Media Engagement: Central to the communication strategy is the need to continue to remind, reinforce and educate stakeholders through series of engagements. For segments of the populace who may only be reached through social media (facebook, X and on YouTube and Instagram handles), a mix of mass media tools (billboards/hoardings, etc.) would be employed.

Use of a Brand Ambassador: The social media strategy will begin with recruiting a popular brand ambassador, someone with broad appeal across age groups, to champion the programme. This ambassador will promote initiatives under the FGP through engaging content, including skits, event highlights, and success stories, to educate the public and spark interest, particularly among the youth. The goal is to shift youth perception of agriculture as a profitable and viable career path.

TV and Radio: TV and radio will be used nationwide to raise awareness, clarify details, and promote participation in the programme. This includes conducting interviews with officials to address public questions and highlight opportunities, as well as airing regular commercials to reinforce key messages and maintain visibility.

Section 5

Programme Risks and Social Safeguards

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Agriculture faces several risks that may hinder the attainment of project objectives. These risks include Environmental Risks (Climate variability, *galamsey*, drought), production and post production-related risks (Pest and disease attacks), Market Risks (price and exchange rate fluctuations, market fluctuations) Policy, Institutional and Regulatory risk. The Feed Ghana Programme identifies these potential risks and outlines measures to address them, thereby enhancing programme success, resilience, and benefits to all stakeholders.

5.1. Environmental Risk

Agricultural production considerably influences the management of natural resources, including land, forests, water, air, and genetic biodiversity. The potential environmental risk that could affect the programme are climate change and illegal mining activities (galamsey).

Climate Change

Climate variability remains one of the significant threats to agriculture in the country, threatening food production systems and affecting the livelihoods and food security of millions of Ghanaians who depend on agriculture. Climate change effects on agriculture, particularly on smallholders, are related mainly to increased erratic weather patterns across the country and the recurrence of extreme weather events such as flooding, droughts, extreme temperatures, and high humidity, among others. Adaptation and mitigation measures to address the impacts of climate change are outlined below.

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Adaptation Measures to Climate Change

i. **Access and use of Weather Information for planning**: This is relevant for all value chain actors to plan and make informed decisions. This is particularly useful for site and crop selection, fertilizer and pesticides application, water management (irrigation) and pest and disease control which require real-time climate and weather information. Digital forecasting technology will be deployed to disseminate information on seasonal, weekly and daily weather forecasts to farmers as part of the agricultural extension delivery. The information will be provided in local languages.

ii. **Use of drought-tolerant seed varieties**: The programme will promote the adoption and utilisation of drought-tolerant seeds and planting materials (drought tolerant and early maturing) to strengthen the resilience of beneficiary farmers.

iii. **Irrigation**: Irrigation will be expanded under FGP (IFW) to mitigate risks associated with drought, erratic rainfall, and prolonged dry spells for farmers engaged in selected value chains. Farmer-led irrigation systems will also be promoted for smallholder farmers through solar pumps, boreholes, and dugouts.

iv. **Sustainable Land and Water Management**: Sustainable land management practices such as conservation agriculture, crop rotation, and minimum tillage will be promoted. In addition, rain and water harvesting technologies will be promoted. To minimize the impact of felling trees during land expansion for crop production agroforestry practices will be undertaken.

Mitigation Measures against Climate Change

i. **Integrated Soil Nutrient Management**: This involves the use of both organic and inorganic fertilizer for integrated soil management. In addition to promoting the use inorganic fertilizers under the FGP, organic fertilizers and compost will also be promoted to improve soil fertility. In-situ soil testing kits will be employed to help choose the appropriate crop specific fertilizers (organic and mineral) to ensure environmental safety and cost efficiency in fertilizer use. These will minimize greenhouse gases emissions associated with the use of chemical fertilizers.

ii. **Alternative Wetting and Drying**: For rice production, the Alternative Wetting and Drying (AWD) technology will be utilised to conserve water, enhance productivity, reduce greenhouse gas emissions, and improve resilience.

iii. **Promotion of Agroecological Practices**: Agroecological practices will be mainstreamed and scaled up during programme implementation through awareness creation, training of extension agents and farmers. These practices will include: crop diversification, agroforestry, organic fertility management, biological pest control, Farmer-led irrigation development, development and use of appropriate mechanization systems, selection and development of local animal breeds towards breed security, production of high yielding local seed varieties, conservation agriculture, water harvesting and efficient use, use of local seed Varieties (where appropriate) and integration of livestock and crops (especially the use of poultry manure from the poultry sub-programme activities to improve soil fertility for home gardens and vegetable production.

The Ministry of Food and Agriculture and the Departments of Agriculture at the MMDA level in the country already know agroecological practices. However, a more comprehensive and coordinated training approach to agroecology will be undertaken at all levels for agricultural extension personnel, in line with the 13 Principles and 10 Elements of Agroecology. There is also a plan to develop a National Agroecology Strategy (NAS) for which Ghana will be the first in West Africa to develop such a device. (Several East and Southern African countries have produced their NASs as part of their Food Systems Transformation Agendas)

Climate variability remains one of the significant threats to agriculture in the country.

Illegal Mining (*Galamsey*)

Illegal mining, commonly known as *galamsey*, has become a significant and pervasive issue in Ghana, posing substantial challenges to agricultural production. Its notable effects on the agricultural food system include, loss of significant farmlands, pollution of water bodies, deforestation and removal of soil cover.

Mitigation Measures

Collaboration with appropriate ministries and agencies on activities related to land reforms and land reclamation.

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5.2. Production and Post-Production Risks

The potential production and post-production risks include; Pest and disease risk, quality of inputs, production systems and high post-harvest loss.

Pest and Disease Risks

Plant pests and disease pathogens and their spread significantly hamper the agriculture production. It is anticipated that plant pests are likely to impact the FGP negatively. On the average, plant pests account for about 20-40% of yield losses globally. Pest infestations are becoming more unpredictable, with their geographic range and severity of infestation, as well as the infectivity of disease pathogens, increasing due to climate change. There is therefore the need to protect agricultural investments through the FGP by mitigating the risks associated with pests and diseases.

Mitigation Measures

To mitigate the risks associated with pests and diseases, the following measures will be taken:

i. **Integrated Pest Management (IPM)**: A holistic approach that combines physical, cultural, biological, and chemical controls to manage pests and diseases will be implemented. The multiplication and release of biological agents for the management of pests such as Fall Armyworm (FAW) will also be intensified under the FGP in addition to the use of biopesticides/biorationals and less-toxic synthetic pesticides for the management of pests and diseases. Pest of quarantine importance such as Fruitflies and False Codling Moths will be effectively managed.

ii. **Promoting and Expanding Area under Protected Cultivation**: This will exclude most pests associated with vegetable production, thereby reducing pesticide use.

iii. **Enhanced extension service delivery**: Farmers will be encouraged to report pest and disease outbreaks promptly. The AEAs will be equipped with step-down training in the safe handling of pesticides and to monitor pesticide abuse.

iv. **Enhance Farmers' Access to Quality Inputs**: Farmers under the FGP will be encouraged to source their inputs from the Farm Service Centres (FSC) and accredited input shops to guarantee their quality. PPRSD, in collaboration with the EPA, will continue to conduct nationwide post-registration surveillance on pesticides and other inputs to ensure that genuine products are sold to farmers.

Quality of inputs

Using poor quality inputs such as seeds, fertiliser, and agrochemicals is a challenge that farmers continue to face during production. They are also confronted with inappropriate application of the recommended rate and practices. These lower their yields and income potential.

Mitigation Measure: These include improvement in certification and rigorous inspection and monitoring processes to ensure quality seeds and fertilizers to farmers by staff of PPRSD, investment in appropriate seed storage facilities and augmenting PPRSD staff, training PPRSD staff, extension agents, farmers, seed inspectors, etc. to improve the certification process.

i. **Management of Livestock and Poultry Production Systems:** Risks associated with livestock and poultry production systems include poor housing, poor pest and disease management, and feed supply instability, all contributing to high mortality rates and loss of income to farmers. In addition, the improper usage and disposal of manure contribute to greenhouse gas emissions.

Mitigation Measure

The programme will promote the use of improved livestock breeds, housing and manure management to help reduce greenhouse gas emissions associated with the feeding of livestock and manure decomposition.

Post-harvest management: Post-harvest management is key to improving farmers' livelihoods and incomes. Existing studies show that approximately 20% to 50% (depending on the type of crop) of farm produce is lost due to poor post-harvest management practices. This contributes to food insecurity and loss of income to farmers.

Mitigation measures

The programme will support the development of improved post-harvest management infrastructure, including warehouses, silos, packhouses, temperature-controlled vehicles, solar dryers, and patios. Training will be provided to extension agents and relevant value chain actors to minimize post-harvest loss. Efforts will be made to mainstream circular economy practices.

5.3. Market Risks

Market access and price volatility represent critical risks across agricultural commodity value chains in Ghana. Producers, particularly smallholder farmers, often lack predictable and structured markets for their outputs, exposing them to exploitative pricing, post-harvest losses, and limited profitability. This situation is compounded by seasonal gluts, weak demand forecasting, fragmented marketing channels, and the absence of reliable offtake arrangements. The ripple effects extend to other actors, including aggregators, processors, and traders, whose operations are hindered by inconsistent supply, unpredictable quality standards, and price distortions.

A key contributing factor to this risk environment is the lack of market coordination and information asymmetry. Many farmers operate in isolation without access to timely and credible information on prevailing market prices, buyer specifications, or contract terms. In the absence of collective action, individual producers have little to no bargaining power and are unable to influence market dynamics. On the other hand, processors and exporters frequently report challenges with sourcing consistent volumes of quality raw materials, further discouraging investment in downstream value addition.

Mitigation/Adaptation:

The Feed Ghana Programme (FGP) will adopt a multi-actor approach to reduce market-related risks and foster stronger, more predictable market systems. At the producer level, the programme will promote the formation and strengthening

of agricultural cooperatives, farmer-based organizations (FBOs), and outgrower schemes. These collective structures will enhance members' negotiating power, improve post-harvest handling and grading, and enable bulk sales to higher-value markets.

To improve market coordination, FGP will support the establishment of commodity platforms that bring together producers, aggregators, processors, exporters, input suppliers, financial institutions, and regulators. These platforms will serve as hubs for dialogue, coordination, and trade facilitation, ultimately improving trust and transparency across value chains.

The programme will work closely with the Ghana Commodity Exchange (GCX) to provide structured trading options, warehouse receipt systems, and access to real-time market information. Through these interventions, farmers and other actors will benefit from price discovery mechanisms, reduced transaction costs, and access to formal, rule-based markets. The GCX partnership will also help bridge the gap between surplus-producing areas and demand centres, enabling more efficient national trade flows.

Moreover, FGP will actively facilitate linkages between producers and reliable offtakers, such as agro-processors, institutional buyers, and exporters—through contract farming and forward purchasing arrangements. These structured relationships will ensure quality assurance, reduce side-selling, and guarantee market access for farmers while providing processors with a steady supply of raw materials.

To complement these efforts, the programme will also support digital innovations such as market information systems, mobile-based price alerts, and e-commerce platforms, which will empower farmers with better market intelligence and negotiation leverage. Where possible, linkages with public procurement systems (e.g., school feeding programmes) and private sector-led aggregation schemes will be explored to achieve demand.

Through this integrated approach, the FGP aims to de-risk market participation, enhance value chain efficiency, and stimulate investment across Ghana's agricultural sector.

5.4. Policy, Institutional and Regulatory Risks

Policy risk arises from the unpredictability and inconsistency of government policies that affect the agricultural sector, such as sudden changes in subsidies, tariffs, or pricing frameworks, which can distort markets and disincentivise long-term investment. Misalignment or lack of coordination among ministries and government agencies can further complicate implementation, leading to policy

fragmentation, duplication of efforts, or institutional conflicts that undermine the programme's objectives. Such risks may also manifest through the politicization of input distribution, changes in leadership at key institutions, or shifts in national priorities that undermine programme continuity

Regulatory risk arises from the weak or inconsistent enforcement of agricultural laws and standards, as well as the absence of clear frameworks in key areas, including land tenure, seed certification, pesticide use, and contract enforcement. These gaps discourage private sector investment, compromise quality assurance, and create uncertainty across the value chain.

Mitigation Strategy under FGP: To mitigate policy risk, the FGP will ensure strong alignment with existing national development policies and frameworks, including the Medium-Term National Development Policy Framework and the National Agricultural Investment Plan (NAIP). In addition, the programme will support the establishment of formal inter-ministerial and inter-agency committees to promote coordination, cohesiveness, and joint decision-making across relevant government institutions.

The objective is to foster a whole-of-government approach that avoids conflicting mandates, reduces institutional silos, and enhances policy coherence across all interventions. Furthermore, the FGP will institutionalize public-private dialogue mechanisms to ensure inclusive and transparent policy development that reflects the interests and realities of all value chain actors. Where appropriate, key programme interventions will be formalized through policy directives or legislative instruments to promote consistency and sustainability across political and administrative transitions.

The FGP will collaborate with relevant regulatory bodies, including the Plant Protection and Regulatory Services Directorate (PPRSD), Veterinary Services Directorate (VSD), and the Lands Commission, to strengthen enforcement mechanisms and close regulatory gaps. The programme will support capacity building for regulators, promote the digitization of regulatory processes, and advocate for reforms to improve land access, input quality control, and contract compliance. Stakeholder engagement platforms will also be used to gather feedback and ensure regulations are practical and widely accepted.

The Feed Ghana Programme will be executed as a non-partisan, nationally owned initiative anchored in Ghana's long-term development strategy. A multi-stakeholder governance structure, including representatives from government, the private sector, development partners, and civil society, will provide oversight and reduce the potential for undue political influence. Moreover, the programme will be mainstreamed within the sector's medium-to long-term planning and budget cycles.

5.5. Social Safeguards and Inclusivity

Gender Inclusivity

The project is designed in line with Ghana's National Gender and Children Policy. The gender analysis of the agricultural sector revealed gender gaps along the value chain, with women on the disadvantaged side. Most of the gender gaps are outlined in access to land, inputs, technical skills, networks, agricultural services, markets and agricultural technologies. To address the identified gender gaps, specific activities and measures will be put in place to uplift the conditions of women in the project implementation.

The project will encourage financial service providers to develop innovative products for women, which recognize their needs in relation to collateral and repayment needs, suitable for the specific needs of women actors at each level, enabling savings, working capital and investments. The project is expected to support women and youth in marketing and supply to consumers, including key institutions, and train women farmers on improved agricultural practices. Through the empowerment of women combined with the nutrition sensitization activities, the project will contribute to improved health and nutrition outcomes among women of reproductive age and young children.

Youth Employment

This project has a youth and employment sub-component, which aims to create business opportunities and decent employment for young women and men along the country's agricultural value chains, supporting youths' line with employment in agriculture, which aligns with the Feed Ghana project.

People Living with Disabilities

The project is committed to the full inclusion of People Living with Disabilities (PLWD) in line with Ghana's Disability Act and international conventions. Recognizing the barriers PLWD face in the agricultural sector such as limited access to training, finance, and adaptive tools the project will implement targeted measures to ensure their equitable participation. These include providing inclusive training, promoting accessible agricultural technologies, and supporting disability-friendly financial products. The project will also collaborate with disability organizations to reduce stigma and ensure infrastructure and communication are accessible. These efforts aim to empower PLWD as active contributors to agricultural value chains and national development.

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Appendices

Appendices 1

Targeted Quantities of Breeder, Foundation, and Certified Seed for Rice

Year	Breeder seed (MT)	Foundation seed (MT)	Certified seed (MT)
2025	1.0	20	—
2026	7.6	380	20,000
2027	19.8	985	59,100
2028	10.9	542.50	32,550

Appendices 2

Sorghum Intervention on Varietal Release

Immediate	Support research institutions to produce 10MT foundation seed of the 3 newly released hybrid varieties for the 2024 production season.
Short Term	Support research institutions to produce 20MT of foundation seed of the 3 newly released hybrid varieties. Research institutions shall initiate the development of bird and aflatoxin-resistant materials.
Medium Term	Facilitate the production of 30MT of the newly released hybrid seed varieties. Facilitate the local seed growers to produce 1,500MT of certified seeds for the 2026 farming season.
Long Term	Facilitate the production of 40MT of the newly released hybrid seed varieties. Continue research on aflatoxin-free and bird-resistant varieties. Facilitate the local seed growers to produce 3,000MT of certified seeds for 2027/2028 farming season.

Appendices 3

Rice Capacity of Silos and Targeted Areas

Year	Capacity (MT)	Proposed Regions
2025	50,000	Northern, Ashanti, Bono East, Upper East, Eastern
2026 - 2027	100,000	Northern, Bono East, Upper West, Oti, Volta
2028	200,000	North East, Ashanti, Upper West, Savannah

Appendices 4

Animal Health Targets-Poultry (2025–2028)

Indicator	Target
Poultry vaccination coverage (Newcastle Disease)	80% of national flock annually
Number of household poultry producers supported with vet kits	55,000
Veterinary support coverage under Nkoko Nketenkete	100% of beneficiaries
Existing labs offering poultry diagnostics	13
Number of poultry farms certified for biosecurity compliance	1,000
Veterinary officers and Veterinary paraprofessionals trained in poultry health	1,500
Community animal health workers deployed	1,200
Live bird markets and slaughter facilities under vet supervision	2,000

Source: MoFA-VSD & APD

Appendices 5

Animal Health Targets- Ruminants and Pigs Development Project (2025–2028)

Indicator	Target
PPR vaccination coverage (small ruminants)	70% national flock annually
CBPP vaccination (cattle)	70% in target regions
ASF surveillance coverage (pig farms)	90% of intensive farms monitored
Functional veterinary clinics and labs for ruminant/pig diagnostics	120
Trained community livestock health workers	1,000
Number of districts implementing livestock biosecurity programmes	150
Meat inspection officers deployed to rural slaughter facilities	450
Public awareness campaigns on pig/ruminant diseases and food safety	Conducted in 261 districts

Source: MoFA-VSD & APD

Appendices 6

Potential Areas to be Developed for Irrigation

No.	Regions	Scheme	Municipal/ District	Type of Scheme	Potential Area (ha)	Current Irrigated Area (ha)	Major Crops	Status
1	**Greater Accra**	Ashaiman	Ashaiman	Gravity	155	80	Rice, Maize, Vegetables	*Functional*
2		Kpong	Shai Osudoku	Gravity	4,500	3,650	Rice, Banana	*Functional*
3		Weija	Ga South	Pump & Sprinkler	1500	200	Vegetables, (tomato, pepper)	*Functional*
4		Dawhenya	Ningo Prampram	Pump & Gravity	4500	200	Rice, Vegetables, Flowers	*Functional*
5		Ada	Ada East	Pump	103	103	Tomatoes, pepper	*Functional*
6		Angorsikope	Ada East	Pump & Gravity	120	110	Tomatoes pepper	*Functional*
7		Michel Camp	Ashaiman	Gravity	130	130	Tomatoes, pepper	*Functional*
8		Dawa	Ningo Prampram	Gravity	50	10	Vegetable	*Partially functional*
Sub-Total-GREATER ACCRA REGION					**11,058**	**4,483**		
9	**Volta**	Weta	Ketu North	Gravity	960	880	Rice, Okro, Maize	*Functional*
10		Aveyime	North Tongu	Pump & Gravity	150	60	Rice	*Functional*
11		Kpando-Torkor	Kpando	Pump & Gravity	119	40	Chilli Pepper, Maize	*Non-functional*
12		Dodoekope	South Tongu	Pump & Gravity	130	68	Vegetables (pepper, tomato)	*Functional*
16		Tokpo	North Tongu	Pump & Gravity	119	90	Vegetable	*Non-functional*
17		Torgorme	North Tongu	Gravity	4,000	1,800	Babycorn, Rice and vegetables	*Functional*
18		Koloe-Dayi	Hohoe	Pump	30	30	Vegetable, Rice	*Partially Functional*
19		Atidzive-Ayiteykope	Akatsi	Gravity	30	20	Vegetable	*Functional*
20		Agorveme	North Tongu	Pump & Gravity	109	72	Maize	*Functional*
21		Kpoglu	Ketu South	Gravity	100	65	Rice	*Functional*
23		Keyime	Avetime-Ziope	Gravity	50	27	Vegetable/maize	*Functional*
24		Ohawu Dam	Ketu North	Gravity	30	5	Rice/sugar cane	*Partially functional*
Sub-Total-VOLTA REGION					**5,827**	**3,157**		

No.	Regions	Scheme	Municipal/ District	Type of Scheme	Potential Area (ha)	Current Irrigated Area (ha)	Major Crops	Status
25		Amate	Kwahu East	Pump & Gravity	202	101	Vegetables	*Non-functional*
26	**Eastern**	Dedeso	Kwahu East	Pump & Gravity	100	20	Vegetables	*Non-Functional*
27		Kornorkle	Yilo Krobo	Gravity	45	30	vegetables	*Functional*
28		Gyadem	Birim South	Pump & gravity	52	0	Vegetables	*Non-functional*
Sub-Total- EASTERN REGION					**399**	**151**		
29		Okyereko	Gomoa East	Pump/Gravity	111	81	Okra, Rice	*Functional*
30		Mankessim	Mfantsiman West	Pump	260	17	Watermelon	*Functional*
31	**Central**	Mprumem	Gomoa West	Gravity	250/75	75	Vegetables	*Functional-newly constructed*
32		Ekotsi	Ekumfi	Pump Groundwater	207/30	30	Vegetables	*Partially functional*
33		Baafikrom	Mfantsiman East	Pump	4	4	Vegetables	*Functional*
Sub-Total- CENTRAL REGION					**375**	**207**		
34		Anum Valley	Ejisu Juaben	Pump & Gravity	140	58	Rice	*Functional*
35		Akumadan	Offinso North	Pump & Sprinkler	625	100	Tomato	*Functional*
36	**Ashanti**	Asuoso	Offinso North	Pump	10	10	Rice, Vegetables	*Functional*
37		Sata	Mampong	Gravity	56	34	Vegetables	*Non-functional*
38		Adiembra	Atwima Mponua	Pump & Gravity	65	65	Vegetables	*Non-functional*
Sub-Total- ASHANTI REGION					**896**	**267**		
39		Kokoroko	Techiman North	Pump & Sprinkler	66	66	Vegetables	*Non-functional*
40		Tanoso	Techiman South	Pump & Sprinkler	115	64	Vegetables	*Non-functional*
41		Asuoso	Nkoranza North	Pump	12	12	Vegetables	*Non-functional*
42	**Bono East**	Kaniago	Techiman South	Hydrant	66	66	Vegetables	*Non-functional*
43		New Longoro	Kintampo North	Gravity	224	190	Rice	*Non-functional*
44		Asantekwaa	Kintampo North	Gravity	143	143	Maize	*Non-functional*
45		Abuontem	Nkoranza North	Gravity	10	10	—	*Non-functional*
Sub-Total- BONO EAST REGION					**636**	**551**		
46	**Ahafo**	Nobekaw	—	Pump	60	60	—	*Non-functional*
Sub-Total- AHAFO REGION					**60**	**60**		

No.	Regions	Scheme	Municipal/ District	Type of Scheme	Potential Area (ha)	Current Irrigated Area (ha)	Major Crops	Status
47	**Western North**	Moseaso	Wassa Amenfi	Pump & Gravity	60	48	Vegetable	*Non-functional*
48		Aponapon	Sefwi Wiawso	Pump & pipe distribution	70	50	Vegetable	*Non-functional*
Sub-Total- WESTERN NORTH REGION					**130**	**98**		
49	**Bono**	Subinja	Wenchi	Pump & Sprinkler	121	60	Vegetable, cowpea, maize	*Non-functional*
50		Degedege	Tain	Gravity	20	10	Vegetables	*Non-functional*
51		Akurobi	Wenchi	Pump	55	55	Vegetables	*Non-functional*
Sub-Total- BONO REGION					**196**	**125**		
52	**Savannah**	Buipe	Central Gonja	Pump & Gravity	194	110	Rice, vegetables	*Non-functional*
53		Yapei	Central Gonja	Pump & Gravity	194	194	Vegetables	—
54		Wambong	Central Gonja	Gravity	6	6	Rice, Vegetables	*Non-functional*
55		Sunyeri	Sawla Tuna	Gravity	—	—	—	—
Sub-Total- SAVANNAH REGIONS					**394**	**310**		
56	**Northern**	Bontanga	Kumbungu	Gravity	570	570	Rice, Vegetables	*Functional*
57		Libga	Savelugu/Nanton	Gravity	25	20	Rice, Leafy Vegetables (sabdrafa)	*Functional*
58		Golinga	Tolon	Gravity	100	100	Rice, Okro, sabdrafa	*Functional*
59		Dipali	Savelugu	Pump & Gravity	171	148	Maize	*Non-functional*
60		Sogo	Savelugu	Pump & Gravity	151	125	Maize	*Non-functional*
61		Dinga	Savelugu	Pump & Gravity	115	90	Maize	*Non-functional*
62		Karimenga	West Mamprusi	Pump scheme	6	6	Vegetables	
63		Wambong	Central Gonja	Gravity	4	4	Rice	*Non-functional*
64		Sabari	Zabzugu	Water conservation	220	200	Rice	*Functional*
65		Mongneigu	Zabzugu	Water conservation	90	80	Rice	*Functional*
66		Suke	Lambusie	Gravity	50	0	Vegetable	*Functional*
67		Charia	Wa Municipal	Gravity	30	30	—	*No land dev't, no canals*
68		Dorimon	Wa West	Gravity	20	0	Vegetable	*Functional*
69		Diesi	Wa West	Gravity	10	0	Vegetable	*Functional*
70		Nakor	Wa West	Gravity	10	0	Vegetables	*No-Functional*
71		Nakorie	Wa West	Gravity	50	0	Vegetables	*Functional*
72		Naballa	Lambusie	Gravity	10	0	Vegetable	*Functional*

No.	Regions	Scheme	Municipal/ District	Type of Scheme	Potential Area (ha)	Current Irrigated Area (ha)	Major Crops	Status
73		Kpare	Lambusie	Gravity	20	0	Vegetables	*Functional*
74		Poyetanga	Wa West	Gravity	5	2	Vegetables	*Functional*
75		Konzokala	Jirapa	Gravity	50	0	Vegetables	*Functional*
76		Kataa	Wa East	Gravity	15	0	Vegetables	*Functional*
77		Degri	Jirapa	Gravity	17	0	Vegetables	*Functional*
78		Tokun	Nandom	Gravity	50	0	Vegetables	*Functional*
79		Puffiam	Nandom	Gravity	25	0	Vegetables	*Functional*
80		Brutu	Nandom	Gravity	40	0	Vegetables	*Functional*
81		Sentu	Nandom	Gravity	30	0	Vegetables	*Functional*
82		Ko-Tuopare	Nandom	Gravity	10	0	—	—

Appendices 7

Project Sites under Irrigation for Wealth Creation (IWC)

No.	Project/Community Name	Region	District	Targeted Irrigable Area	Source of Water
PHASE ONE					
1.	Lonto	Northern	Kpandai	2,000	Lake Volta
2.	Kafaba	Savannah	Central Gonja	1,000	Lake Volta
3.	Sheri	Savannah	East Gonja	1,000	Black Volta
4.	Awate	Volta	Kpando	450	Lake Volta
PHASE TWO					
5.	Junto	Savannah	Central Gonja	1,000	White Volta
6.	Weima	North-East	Mamprugu Moagduri	1,000	White Volta
7.	Katanga	Oti	Krachi East	1,000	Lake Volta
8.	Bumbula No.1	Oti	Biakoye	700	Lake Volta
PHASE THREE					
9.	Bumbula No.2	Oti	Biakoye	350	Lake Volta
10.	Kpando-Fesi	Volta	Kpando	600	Lake Volta
11.	Tamne	Upper East	Garu	1,000	Existing Dam
12.	Tanduori	Upper West	Nadowli-Kaleo	450	Well defined valley
PHASE FOUR					
13.	Kamba	Upper West	Nandom	300	Well defined valley
14.	Kpanfa	Upper West	Wa West	143	Well defined valley
15.	Ponyamayiri	Upper West	Wa West	500	Well defined valley

Source: MoFA-GIDA, 2025

Appendices 8

Estimated Budget

Sub Programmes/ YEAR	YEARS				TOTAL (GHS)
	2025	2026	2027	2028	
GRAND TOTAL (GHS)	**42,141,560,789**	**69,664,787,550**	**85,601,869,884**	**104,799,928,206**	**302,208,146,430**
Crop Development	15,211,617,889.00	21,047,200,583.08	25,889,214,816.58	33,414,913,410.22	**95,562,946,698.88**
o/w cereals and legumes	13,916,658,869.00	18,606,215,795.00	22,211,704,546.56	28,060,863,149.23	**82,795,442,359.79**
vegetables	990,204,020.00	2,100,553,053.08	3,297,325,594.93	4,929,608,963.62	**11,317,691,631.63**
starchy crops	304,755,000.00	340,431,735.00	380,184,675.08	424,441,297.38	**1,449,812,707.46**
Livestock Development	1,777,472,056.00	4,051,576,026.00	8,486,418,039.00	13,712,092,096.76	**28,027,558,217.76**
o/w poultry	1,624,378,960.00	4,048,434,296.00	8,280,008,797.60	13,707,227,232.56	**27,660,049,286.16**
Ruminant and Pigs	153,093,096.00	3,141,730.00	206,409,241.40	4,864,864.20	**367,508,931.60**
Farmers' Service Centres	6,522,600,000.00	12,007,410,240.00	13,196,143,853.76	10,876,921,571.46	**42,603,075,665.22**
Farm Bank Development	5,675,000,000.00	6,683,750,000.00	7,881,751,250.00	9,305,616,623.75	**29,546,117,873.75**
Institutional Farming	1,423,905,173.00	1,855,199,699.42	2,808,082,573.61	4,876,063,513.48	**10,963,250,959.51**
Feed the Industry	2,048,868,000.00	1,141,113,680.00	43,360,055.90	31,194,032.73	**3,264,535,768.63**
Infrastructure Development	9,400,000,000.00	22,784,125,000.00	27,188,325,125.00	32,458,266,662.38	**91,830,716,787.38**
o/w irrigation for wealth	6,090,000,000.00	12,980,375,000.00	15,562,575,125.00	18,659,841,662.38	**53,292,791,787.38**
agro-production enclave	3,310,000,000.00	9,803,750,000.00	11,625,750,000.00	13,798,425,000.00	**38,537,925,000.00**
Operational Cost	82,097,671.20	94,412,321.88	108,574,170.16	124,860,295.69	**409,944,458.93**

Appendices 9

Results Framework

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
Impact Statement								
Increased Agricultural GDP growth rate	Agricultural GDP growth (%)	Percentage change in the value of agricultural goods and services produced with-in a given year	2024	2.80%	6%	6%	6%	6%
Reduced rice Imports	Rice imports (%)	Percentage of National rice demand imported (=Total rice imports /National rice demand) *100	2024	62%	41%	30%	19%	-2%
Reduced poul-try Imports	Poultry imports (%)	Percentage of National poul-try demand imported (=Total poultry imports /National poultry demand) *100	2024	88%	88%	75%	52%	24%
Reduced tomato Imports	Tomato imports (%)	Percentage of National toma-to demand imported (=Total tomato imports /National tomato demand) *100	2024	62%	54%	41%	20%	12%
Increased Jobs Creation	Number of Jobs Creat-ed	Agricultural jobs refer to the employment opportunities generated within the agricul-tural sector.	2024	TBD	TBD	TBD	TBD	TBD
Increased food secured districts	Number of foods se-cured districts	Food secured districts refer to the count of districts that meet established criteria for food security, meaning that the majority of their popula-tion has physical, social, and economic access to suf-ficient, safe, and nutritious food at all times to meet dietary needs and food pref-erences for an active and healthy life	2024	TBD	TBD	TBD	TBD	TBD
Strategic Objective 1	**Enhance Food Security and Improve Nutrition Outcomes**							
Outcome Statement	**Percentage (%) of food self-sufficiency for selected commod-ities**							

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
1.1 Enhanced food Security	**Cereals and Legumes**	Percentage of national demand for commodities met by domestic production (Food Self-Sufficiency Ratio = (Net Production / National demand) * 100).						
	Maize		2024	91%	109%	119%	132%	150%
	Rice		2024	29%	42%	59%	82%	119%
	Soyabean		2024	83%	101%	108%	118%	131%
	Sorghum		2024	72%	88%	94%	106%	125%
	Vegetables (%)							
	Tomato		2024	38%	46%	59%	80%	112%
	Onion		2024	29%	41%	59%	88%	133%
	Pepper		2024	45%	56%	72%	94%	128%
	Starchy Crops (%)							
	Cassava		2024	95%	105%	118%	133%	153%
	Plantain		2024	117%	127%	137%	148%	158%
	Yam		2024	81%	100%	114%	134%	159%
	Poultry		2024	5%	12%	25%	48%	76%
	Rice imports (%)		2024	TBD	3%	4%	4%	4%
Strategic Objective 2	**Food production and productivity**							
Outcome Statement	**Cereals and legumes production (Mt)**							
2.1 Increased food production	Maize	Annual net production (Mt) of priority food crops	2024	3,293,969	4,166,870	4,766,900	5,505,769	6,598,114
	Rice		2024	1,128,177	150,471	2,368,284	2,760,235	4,563,465
	Soyabean		2024	304,639	420,402	485,564	576,461	715,965
	Sorghum		2024	431,409	620,151	784,491	1,035,528	1,449,740

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Vegetables production (Mt)							
	Tomato		2024	684,192	827,873	1,092,792	1,508,053	2,171,596
	Onion		2024	239,948	345,525	510,064	784,223	1,225,349
	Pepper		2024	214,064	270,791	354,845	476,911	658,138
	Starchy Crops production (Mt)							
	Cassava		2024	28,532,607	33,269,020	39,882,901	48,673,092	62,690,942
	Plantain		2024	7,219,061	7,959,015	8,774,814	9,674,232	10,665,841
	Yam		2024	11,412,660	14,437,014	16,995,253	20,377,309	24,876,618
Outcome	**Cereals and Legumes Yield (Mt/Ha)**							
2.2 Increased crop Yield (Mt/Ha)	Maize	Yield (Mt/Ha) of priority food commodities	2024	2.6	2.99	3.29	3.61	4.05
	Rice		2024	2.6	3.4	4	4.2	4.5
	Soyabean		2024	1.62	1.94	2.04	2.16	2.33
	Sorghum		2024	1.8	2.25	2.48	2.72	3.05
	Vegetables Yield (Mt/Ha)							
	Tomato		2024	9.59	10.55	12.65	15.19	18.22
	Onion		2024	20.78	24.93	30.17	37.1	46.38
	Pepper		2024	11.25	12.94	15.14	18.17	21.8
	Starchy Crops Yield (Mt/Ha)							
	Cassava		2024	24.48	25.95	28.02	30.26	33.89
	Plantain		2024	14.51	15.23	16	16.8	17.64

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Yam		2024	18.91	21.75	23.7	25.84	28.16
2.3 Increased adoption of improved technologies	Percentage of farmers adopting improved technologies generated through research and development							
	Crop related technologies	Proportion of crop farmers who have adopted improved crop related technologies, disaggregated by type (cereals, leg-umes, starchy, vegetables and tree crops)	2024	TBD	TBD	TBD	TBD	TBD
	Poultry related technologies	Proportion of poultry farmers who have adopted improved poultry related technologies, disaggregated by type (broilers, layers)	2024	TBD	TBD	TBD	TBD	TBD
	Livestock related technologies	Proportion of livestock farmers who have adopted improved livestock related technologies, disaggregated by type (cat-tle, sheep, goat and pig)	2024	TBD	TBD	TBD	TBD	TBD
Outcome Statement	**Poultry and livestock Meat production (Mt)**	Annual domestic meat pro-duction and imported						
2.3 Increased domestic meat production	Quantity of poultry meat produced	Quantity (Mt) of poultry meat produced in the country	2024	30,000	30,391	66,679	130,183	208,807
	Quantity of livestock meat produced	Quantity (Mt) of livestock meat (sheep, goat and pigs) produced in the country	2024	4,880	5,124	5,893	7,071	7,425
Output Statement	Cereals and legumes Cultivation Area (Ha)		2024	2,130,298	2,364,929	2,531,691	2,748,200	3,047,083
Increased area of targeted crops cultivated (Ha)	Maize	Total land area that is cultivated with FGP crops annually in Hectares	2024	1,268,000	1,395,000	1,451,000	1,523,000	1,629,000
	Rice		2024	434,266	477,693	525,462	578,008	635,809
	Soyabean		2024	188,566	216,851	238,536	267,160	307,234
	Sorghum		2024	239,466	275,385	316,693	380,032	475,040
	Vegetables Cultivation Area (Ha)		2024	101,942	113,291	126,702	146,695	175,779
	Tomato		2024	71,370	78,507	86,358	99,312	119,174
	Onion		2024	11,549	13,859	16,908	21,135	26,419

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Pepper		2024	19,023	20,925	23,436	26,248	30,186
	Starchy Crops Cultivation Area (Ha)		2024	2,266,777	2,468,576	2,688,858	2,973,014	3,337,707
	Cassava		2024	1,165,705	1,282,275	1,423,326	1,608,358	1,849,612
	Plantain		2024	497,570	522,448	548,571	575,999	604,799
	Yam		2024	603,502	663,853	716,961	788,657	883,296
Output Statement	**Quantity of improved Cereals and Legume (Mt) seeds distributed**							
Increase farmers access to improved seeds	Maize	The volume (in metric tonnes) of certified seeds specific commodities that are officially distributed to farmers through government programmes	2024	0	5,000.00	7,500	9,000	14,000
	Rice		2024	0	10,000.00	29,600.00	32,000.00	33,100.00
	Soyabean		2024	0	3,469.61	4,770.72	6,411.85	8,602.56
	Sorghum		2024	0	300	350	400	450
	Quantity of improved Vegetables (Mt) seeds distributed							
	Tomato		2024	0	19.63	21.59	24.83	29.79
	Onion		2024	0	27.72	33.82	42.27	52.84
	Pepper		2024	0	5.23	5.86	6.56	7.55
	Quantity of improved planting materials for starchy crops (Mt) distributed							
	Cassava (100bundles/ha)		2024	0	128,227,500	142,332,600	160,835,800	184,961,200
	Plantain (1670suckers/ha)		2024	0	872,488,160	916,113,570	961,918,330	1,010,014,330
	Yam (10,000 seed yams/ha)		2024	0	6,638,530,000	7,169,610,000	7,886,570,000	8,832,960,000

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
Increased the quantity of foundation seeds	Quantity of foundations seeds (Mt)	The total volume of foundation seeds, measured in metric tonnes (Mt), produced from breeder seeds	2024	0	TBD	TBD	TBD	TBD
	Maize		2024	0	TBD	TBD	TBD	TBD
	Rice		2024	0	TBD	TBD	TBD	TBD
	Soyabean		2024	0	TBD	TBD	TBD	TBD
	Sorghum		2024	0	TBD	TBD	TBD	TBD
Output Statement	**Quantity of fertilizers and Agro chemicals distributed to farm-ers**		2024					
2.4 Quantity of fertilizer and agrochemicals distributed increased	**Inorganic**	Volume (Mt) of NPK, Urea and organic fertilizer supplied	2024	0	409685.09	491816.99	573074.04	749766
	NPK		2024	0	TBD	TBD	TBD	TBD
	Urea		2024	0	TBD	TBD	TBD	TBD
	Organic		2024	0	TBD	TBD	TBD	TBD
	Agrochemicals (disaggregated by type)	Volume (L) of agrochemicals supplied	2024	0	20,000	22,000	24,200	26,500
	Poultry Farm to Table Initiative							
2.5 Poultry production increased	Number of Day-Old Chicks distributed (layers/broilers)	Count of Day-old chicks given to poultry farmers	2024	0	4,000,000	5,600,000	7,200,000	9,600,000
	Number of beneficiaries (Male/ Female)	Count of beneficiaries who have received Day-old chicks, disaggregated by male and female	2024	0	TBD	TBD	TBD	TBD
	Number of Anchor farmers supported	Count of poultry farms supported (disaggre-gated by type of support)	2024	0	50	70	90	120
	Quantity of poultry feed distributed							
	Small-to-medium scale							

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Quantity of feeds (Mt) distributed	Total quantity of poultry feed distributed to poultry farmers, disaggregated by type	2024	0	18,000	25,200	32,400	43,200
	Quantity of vaccines distributed	Total quantity of vaccines distributed to poul-try farmers, disaggregated by type	2024	0	TBD	TBD	TBD	TBD
	Number of Day-Old Chicks distributed (layers/broilers)	Count of Day-Old-Chicks distributed	2024	0	TBD	TBD	TBD	TBD
	Number of battery cages distributed	Count of battery cages distributed to poultry farmers	2024	0	TBD	TBD	TBD	TBD
	Nkoko Nketenkete Project							
	Number of kuroilers distributed	Count of kuroilers given to poultry farmers.	2024	0	TBD	TBD	TBD	TBD
	Number of beneficiaries (Male/ Female)		2024	0	TBD	TBD	TBD	TBD
	Quantity of feeds (Mt) distributed	Total quantity of poultry feed distributed to poultry farmers, disaggregated by type	2024	0	TBD	TBD	TBD	TBD
2.6 Livestock production increased	**Quantity (heads) of livestock distributed to farmers**							
	Cattle	Count of livestock (disaggregated by type) distributed to farmers	2024	0	TBD	TBD	TBD	TBD
	Sheep		2024	0	46,954	51,649	59,396	71,275
	Goats		2024	0	39,128	43,041	49,497	59,396
	Pigs		2024	0	125,209	137,730	158,390	190,068
	Quantity (heads) of improved breeds of livestock distributed to livestock breeding stations							
	Cattle	Count of improved breeds of livestock (disggregated by type) distributed to livestock breeding stations	2024	0	TBD	TBD	TBD	TBD
	Sheep		2024	0	TBD	TBD	TBD	TBD
	Goats		2024	0	TBD	TBD	TBD	TBD

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Pigs		2024	0	TBD	TBD	TBD	TBD
	Area of farm banks (Ha)							
2.7 Increased farmers access to agricultural lands	Number of farm banks es-tablished	Count of farm banks established within agricultural zones	2024	0	15	20	20	20
	Total area of land under farm Banks (Ha)							
	Number of beneficiaries allocated farm plots in farm banks	Count of farmers who have access to facilities within the Farm Banks	2024	0	TBD	TBD	TBD	TBD
2.8 Increased farmers access to irrigation (Irrigation wealth	Total area (Ha) of farmland under irrigation within designated agro production enclaves	This refers to the sum of land that is artificially supplied with water for agricultural purposes through various irrigation methods such as surface irrigation, drip irrigation, or sprinkler irrigation.	2024	0	15,000	30,000	30,000	25,000
	Total area (Ha) of agro pro-duction enclaves not cov-ered by irrigation	This refers to the sum of land that is not supplied with water for agricultural purposes	2024	0	TBD	TBD	TBD	TBD
	Number of irrigation schemes rehabilitated	Count of irrigation schemes reha-bilitated	2024	0	5	7	12	15
	Number of new irrigation schemes established	Count of irrigation schemes estab-lished	2024	0	TBD	TBD	TBD	TBD
	Number of boreholes con-structed	Count of boreholes constructed	2024	0	TBD	TBD	TBD	TBD
	Number of small earth dams constructed	Count of small earth dams con-structed	2024	0	TBD	TBD	TBD	TBD
2.9 Increased farmers access to agricultural mechanization or services	Number of farmers access-ing mechanization equip-ment or services	Count of farmers who have access to sustainable mechanization equipment.	2024	0	TBD	TBD	TBD	TBD

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Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
2.10 Increased number of insti-tutional farms	Number of institu-tions supported to engage agriculture production (disaggre-gated by type of insti-tutions and type of support provided)	Count of institutions who have received support under the FGP	2024		TBD	TBD	TBD	TBD
2.11Technology practiced by farmers (crops, livestock, Machineries) enhanced	Number of beneficiary farmers using fertilizer	Technology adoption involves incorporating new agricultural innovations into farming practices. This includes utiliz-ing certified seeds, applying fertilisers, and adopting mechanisation techniques.	2024	0	TBD	TBD	TBD	TBD
	Number of beneficiary farmers using certified seeds		2024	0	TBD	TBD	TBD	TBD
	Number of beneficiary farmers accessing extension services	Count of farmers who are recipients of agricultural	2024	0	TBD	TBD	TBD	TBD
	Number of cooperatives/FBOs established	extension services, which provide them with knowledge, training, and guidance on modern farming techniques, best practices, and technological advancements	2024	0	TBD	TBD	TBD	TBD
	Number of cooperatives/ FBOs trained on new technologies/ demonstration	Count of cooperatives/FBOs established. Agricultural cooperatives are farmer registered and -managed organizations formed to collectively support their members in areas such as input access, production, marketing, credit, training, and value addition.		0	TBD	TBD	TBD	TBD
	Number of improved technologies disseminated	Count of cooperatives/FBOs trained on new technologies/demonstration	2024	0	TBD	TBD	TBD	TBD
	Number of greenhouses established	Count of crop and livestock technologies disseminated	2024	0	TBD	TBD	TBD	TBD
2.12 Access to extension and other services improved	Number of Farmers' Service Centres (FSCs) established	Count of Farmers' Service Centres that have been equipped with facilities to provide services to farmers	2024	0	50	80	80	60

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Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Number of functioning FSCs	Count of Farmers' Service Centres that are operational and actively providing services to farmers	2024	0	50	80	80	60
	Number of farmers access-ing extension information via FSCs	Count of farmers accessing exten-sion services from FSC	2024	0	TBD	TBD	TBD	TBD
2.13 Capacity of storage infrastructure improved (Mt)	**Total capacity of ware-house**							
	Number of warehouses completed under FGP	Count of warehouses completed	2024	0	TBD	TBD	TBD	TBD
	Total capacity of complet-ed warehouse	This refers to the maximum vol-ume (Mt) or amount of goods, products, or materials that a ware-house can hold or accommodate at a given time	2024	0	TBD	TBD	TBD	TBD
	Number of functional warehouses	Count of functional warehouses	2024	0	TBD	TBD	TBD	TBD
	Number of silos completed under FGP	Count of silos completed	2024	0	TBD	TBD	TBD	TBD
	Total capacity of complet-ed silos	This refers to the maximum vol-ume (Mt) or amount of goods, products, or materials that a Silo can hold or accommodate at a giv-en time	2024	0	TBD	TBD	TBD	TBD
	Number of packhouses completed under FGP	Count of packhouses completed	2024	0	4	6	2	1
	Number of aggregation centres constructed	count of aggregation centres	2024	0	8	10	5	4
2.14 Farmers access to innovative agricultural financing enhanced	Number of commercial Banks lending to Agricul-ture	Count of commercial banks who provide agricultural loans to farm-ers/agribusinesses	2024	TBD	TBD	TBD	TBD	TBD
	Number of farm-ers/ agribusinesses access-ing agricultural loans from commercial banks	Count of farmers/agribusinesses who access agricultural loans from commercial banks	2024	TBD	TBD	TBD	TBD	TBD
	Number of farmers access-ing agricultural insurance	Count of farmers who access agri-cultural insurance	2024	TBD	TBD	TBD	TBD	TBD

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Number of farmers benefit-ting from input credit sys-tem	Count of farmers who are benefiting from the input credit system	2024	TBD	TBD	TBD	TBD	TBD
	Number of commercial banks/financial institu-tions accessing training in agricultural financing	Count of commercial banks/financial institutions who have received training in agricul-tural financing	2024	TBD	TBD	TBD	TBD	TBD
2.15 Agricultural Research and Development Improved	Number of improved tech-nologies developed	Count of improved technologies developed by research institu-tions disaggregated by type	2024	TBD	TBD	TBD	TBD	TBD
	Number of farmers reached with research findings or innovations	Count of farmers who benefit from research findings or innovations	2024	TBD	TBD	TBD	TBD	TBD
	Number of research institu-tions supported by the FGP	Count of research institutions supported (disaggregated by type)	2024	TBD	TBD	TBD	TBD	TBD
	Number of farmer field trials or on-farm demon-strations conducted through research-extension linkages	Count of farmer field trials or on-farm demonstrations conducted	2024	TBD	TBD	TBD	TBD	TBD
	Number of technologies validated and recommend-ed for adoption	Count of technologies validated and recommended for adoption	2024	TBD	TBD	TBD	TBD	TBD
2.16 Sustainable Management of Land improved	Number of farmers practicing conservation Agriculture	Count of farmers practicing conservation agriculture	2024					
	Crop rotation		2024	TBD	TBD	TBD	TBD	TBD
	Mulching		2024	TBD	TBD	TBD	TBD	TBD
	Zero tillage		2024	TBD	TBD	TBD	TBD	TBD
	Cover cropping		2024	TBD	TBD	TBD	TBD	TBD

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Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Intercropping		2024	TBD	TBD	TBD	TBD	TBD
	Area farmland under con-servation agriculture	Conservation agriculture (CA) is a sustainable farming system that aims to improve and sustain agri-cultural productivity, increase resilience, and protect the envi-ronment	2024	TBD	TBD	TBD	TBD	TBD
Strategic objective 3	**Increase raw materials for industry**							
Output Statement	**Quantity of raw materials produced (Mt)**							
3.1 Increased Raw material production for industrial use	Mango	Metric tons (Mt) of crops like mango, oil palm, cashew, shea, etc., produced.	2024	TBD	TBD	TBD	TBD	TBD
	Oil Palm		2024	2,100,000	2,485,000	3,000,000	35,550,000	4,000,000
	Coconut		2024	504,000	604,000	650,000	700,000	700,500
	Rubber		2024	TBD	TBD	TBD	TBD	TBD
	Cashew		2024	252,932	342,000	442,500	540,000	600,000
	Sheanut		2024	TBD	170,000	187,000	205,700	226,270
	Area under raw materials productions (Ha)							
	Mango	This refers to the total land area, measured in hectares (Ha) for targeted crops under FGP cultivated for the production of raw materials for agro-processing industries.	2024	TBD	TBD	TBD	TBD	TBD
	Oil Palm		2024	350,000	355,000	375,000	395,000	400,000
	Coconut		2024	75,000	78,000	80,400	95,200	100,700
	Rubber		2024	TBD	TBD	TBD	TBD	TBD
	Cashew		2024	272,432	285,000	295,000	300,000	300,000
	Shea		2024	TBD	TBD	TBD	TBD	TBD
Strategic objective 4	**Enhance value addition**							
Output Statement								
4.1 Enhanced value addition to agricultural produce	Percentage (%) of industrial raw material processed locally	Share of raw agricultural output processed within Ghana						

FEED GHANA PROGRAMME (FGP) RESULTS FRAMEWORK (2025 - 2028)								
Goal	**To transform Ghana's agricultural sector, ensure food security, create sustainable employment, and enhance economic growth by reducing import dependency while boosting domestic production and exports**							
Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Mango		2024	TBD	TBD	TBD	TBD	TBD
	Oil Palm		2024	TBD	TBD	TBD	TBD	TBD
	Coconut		2024	TBD	TBD	TBD	TBD	TBD
	Cashew		2024	TBD	TBD	TBD	TBD	TBD
	Number of agro-processing enterprises supported/operational	Count of agro-processing enterprises supported under Feed Ghana	2024	TBD	TBD	TBD	TBD	TBD
Strategic objective 5	**Increase exports**							
Output Statement	**Quantity of commodities exported (Mt)**							
5.1 Increased quantity of commodity exported	Soyabean	Quantity of priority commodities exported in metric tons	2024	55,627.00	58,408.35	64,249.19	73,886.56	88,663.88
	Pepper		2024	37,293	37,479.47	37,854.26	43,532.40	44,403.05
	Yam		2024	0.06	0.06	0.06	0.07	0.07
	Plantain		2024	2,066	2,076.33	2,097.09	2,411.66	2,459.89
	Cassava		2024	87	87.44	88.31	101.56	103.59
	Mango		2024	5,819.00	6,109.95	6,720.95	7,729.09	9,274.90
	Palm Oil		2024	130,459.00	136,981.95	150,680.2	173,282.17	207,938.6
	Coconut		2024	25,363.00	26,631.15	29,294.27	33,688.40	40,426.09
	Cashew		2024	716,540.00	752,367.00	827,603.70	951,744.26	1,142,093.1
	Shea		2024	335,102.00	351,857.10	387,042.81	445,099.23	534,119.08
	Value of commodities exported (US $)	Value (US$) of individual commodities exported						
	Soyabean		2024	19,522,375.74	20,498,494.53	22,548,343.98	25,930,595.58	31,116,714.69
	Pepper		2024	136,487.24	143,311.60	157,642.76	181,289.18	217,547.01
	Yam		2024	9,449,925.48	9,922,421.75	10,914,663.93	12,551,863.52	15,062,236.22

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Results Chain	**Indicator**	**Indicator Definition**	**Base Year**	**Base-line Value**	**Targets**			
					2025	**2026**	**2027**	**2028**
	Plantain		2024	1,172,919.19	1,231,565.15	1,354,721.66	1,557,929.91	1,869,515.90
	Cassava		2024	143,590.27	150,769.78	165,846.76	190,723.78	228,868.53
	Mango		2024	25,861,106.7	27,154,162.06	29,869,578.3	34,350,015.0	41,220,018.00
	Palm Oil		2024	122,307,103	128,422,458	141,264,704	162,454,409	194,945,291
	Coconut		2024	4,902,636	5,147,768	5,662,545	6,511,927	7,814,312
	Cashew		2024	263,388,391	276,557,810	304,213,591	349,845,630	419,814,756
	Shea		2024	180,590,477	189,620,001	208,582,001	239,869,301	287,843,161
	Number of exporters complying with export quality standards	Count of exporters out of the total exporters along the agricultural value chains complying with export quality stand-ards	2024	TBD	TBD	TBD	TBD	TBD
Strategic objective 6	**Create jobs**							
6.1 Increased Job creation	Total number of people engaged in agriculture	Count of individuals engaged full-time in agricultural value chain activities	2024	5,104,435	5,359,657	5,895,622	6,779,966	8,135,959
	Number of youth and women engaged in agri-enterprise or service provi-sion	Count of young individuals and women who are actively involved in agricultural enterprises or pro-vide services related to agricul-ture.	2024	2,703,495	2,838,670	3,122,537	3,590,917	4,309,101
	Number of people em-ployed at the FSCs	Total workforce engaged at the FSCs to support service provision and farming activities	2024	0	TBD	TBD	TBD	TBD
	Number of people em-ployed at the agro-production enclaves	Total workforce engaged at the agro production enclaves to sup-port farming activities	2024	0	TBD	TBD	TBD	TBD

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