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THE AFRICAN DEVELOPMENT BANK



PROJECT APPRAISAL REPORT
Additional Financing to Savannah Investment Program (SIP)
For implementation of Building Resilience for Food and Nutrition Security in The Northern Savannah
Ecological Zone

GHANA

20,000,000.00 USD

BOARD PRESENTATION DATE: 20-NOVEMBER-2023

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CURRENCY EQUIVALENTS

Exchange rate effective 6/30/2023

Currency Unit ¹	Equivalent
1 Unit of Account	1.33 USD
1 United States Dollar	GHS 10.97

FISCAL YEAR

1 January 2022 – 31 December 2022

WEIGHTS AND MEASURES

1 Metric ton	2,204.62 Pounds (lbs)
1 Kilogramme (kg)	2.20462 lbs
1 Meter (m)	3.28 Feet (ft)
1 Millimetre (mm)	0.03937 Inch (“)
1 Kilometre (km)	0.62 Mile
1 Hectare (ha)	2.471 Acres

¹ Add any additional foreign or local currencies relevant to the project and their currency equivalents.

ABBREVIATION AND ACRONYMS

AAFORD	Affordable Agricultural Financing for Resilient Rural Development
ADF	African Development Fund
AEFPF	African Emergency Food Production Facility
AF	Additional Financing
AFD	L'Agence Française de Développement
AfDB	African Development Bank
AGRA	Alliance for Green Revolution in Africa
AIDS	Acquired Immunodeficiency Syndrome
ASWG	Agriculture Sector Working Group
AU	African Union
BoG	Bank of Ghana
CA	Conservation Agriculture
CAADP	Comprehensive African Agricultural Development Programme
CAD	Canadian Dollar
CPESDPs	Coordinated Program for Economic and Social Development Policies
CPIP	Country Portfolio Improvement Plan
CPPR	Country Portfolio Performance Report
CRFA	Country Resilience and Fragility Assessment
CSP	Country Strategy Paper
DP	Development Partners
EIRR	Economic Internal Rate of Return
EPA	Environmental Protection Agency
E&S	Environmental and Social Safeguards
AfDB	African Development Bank
AGRA	Alliance for Green Revolution in Africa
AIDS	Acquired Immunodeficiency Syndrome
ASWG	Agriculture Sector Working Group
AU	African Union
BoG	Bank of Ghana
CA	Conservation Agriculture
CAADP	Comprehensive African Agricultural Development Programme
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CPESDPs	Coordinated Program for Economic and Social Development Policies
CPIP	Country Portfolio Improvement Plan
CPPR	Country Portfolio Performance Report
CRFA	Country Resilience and Fragility Assessment
CSP	Country Strategy Paper
DP	Development Partners
EIRR	Economic Internal Rate of Return
EPA	Environmental Protection Agency
E&S	Environmental and Social Safeguards
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESCON	Environmental and Social Compliance Note
EU	European Union
EUR	Euro
FAO	Food and Agriculture Organization
FCDO	Foreign, Commonwealth and Development Office
FC	Foreign Currency
FIRR	Financial Internal Rate of Return
FSNMS	Food Security and Nutrition Monitoring System
GAC	Global Affairs Canada
GAFSP	Global Agriculture and Food Security Program
GASIP	Ghana Agriculture Investment Programme
GDP	Gross Domestic Product
GHG	Green House Gases
GHS	Ghana Cedis
GIZ	German Development Co-operation
GSS	Ghana Statistical Services
HA	Hectares
HIV	Human Immunodeficiency Virus
ICT	Information and Communications Technology
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IFR	Interim Financial Reports
IRM	Independent Recourse Mechanism
IPC	Integrated Food Security Phase Classification

IPR	Implementation Progress Report
ISS	Integrated Safeguard System
JICA	Japan International Cooperation Agency
KfW	Kreditanstalt für Wiederaufbau ("Credit Institute for Reconstruction")
LEAP	Livelihood Empowerment Against Poverty
LC	Local Currency
MAG	Modernizing Agriculture in Ghana
MoFA	Ministry of Food and Agriculture
M&E	Monitoring and Evaluation
MSME	Micro, Small and Medium Enterprises
MT	Metric Tonnes
NDA	Northern Development Authority
NDVI	Normalized Difference Vegetation Index
NGO	Non-Governmental Organisation
NPSS	National Project Steering Committee
NPV	Net Present Value
OCB	Open Competitive Bidding
OS	Operational Safeguards
OVCF	Out grower and Value Chain Fund
PAR	Project Appraisal Report
PCMU	Project Coordination Management Unit
PCN	Project Concept Note
PCR	Project Completion Report
PfJ	Planting for Food and Jobs
PLW	People Living with Disabilities
PMP	Pesticide Management Plan
PRCA	Procurement Risks and Capacity Assessment
RAP	Resettlement Action Plan
RfJ	Rearing for Food and Jobs
RLF	Results-Based Logical Framework
SA	Special Account
SADEP	Savannah Agriculture Value Chain Development Project
SAPIP	Savannah zone Agriculture Productivity Improvement Project
SDG	Sustainable Development Goals

SEAH	Sexual Exploitation and Harassment
SIP	Savannah Investment Program
STDs	Sexually Transmitted Diseases
SNV	Stichting Nederlandse Vrijwilligers ("Foundation of Netherlands Volunteers")
TAAT	Technologies for Africa Agriculture Transformation
TC02	Total Carbon Dioxide
UA	Unit of Account
USAID	United States Agency for International Development
USD	United States Dollar
UN	United Nations
VLSA	Village Savings and Loan Association
WFP	World Food Programme

PROJECT INFORMATION SHEET

CLIENT INFORMATION

Additional Project Name	Financing	Building Resilience for Food and Nutrition Security in the Northern Savannah Ecological Zone
Original Project Name		Savannah Investment Program (SIP)
Sector		Agriculture
Borrower/Grant Recipient		Republic of Ghana
Project Instrument		GAFFSP Grant
Executing Agency		Ministry of Food and Agriculture (MoFA)

COUNTRY AND STRATEGIC CONTEXT

Country Strategy Paper Period:	2019-2023
Country Strategy Paper Priorities supported by Project:	Ghana CSP (2019-2023) intervention pillars for priority actions are: (Pillar 1) support industrialization and private sector activities and (Pillar 2) support infrastructure that are enablers of domestic, regional and global trade. The Project is aligned with Pillar 1 of CSP.
Government Program (PRSP, NDP or equivalent):	Ghana Medium-Term Development Framework (2022-2025) and the Coordinated Program for Economic and Social Development Policies (CPESDPs) 2021-2025. The CPESDP seeks to provide conditions for the private sector to boost growth and create abundant employment opportunities, especially for the youth. It outlines five strategic pillars to anchor growth and development: (a) revitalizing the economy, (b) transforming agriculture and industry, (c) strengthening social protection and inclusion, (d) revamping economic and social infrastructure, and (e) reforming public service delivery institutions.
Project classification:	<p>Project is aligned with the High Five number 2 (Feed Africa) and 5 (Improve the quality of life for the people of Africa), the Bank's Feed Africa Strategy, focus on investment in selecting agricultural value chains through promotion of new technologies and modern farming techniques, development of agro-ecological zones, especially the Savannah regions of Africa based on the future demand; competitive advantage, scope for transformation and potential to nourish Africa. Moreover, it is aligned with the Bank's Feed Africa Strategy and the Technologies for Africa Agriculture Transformation (TAAT) flagship initiative, focusing on the Savannah regions (TAAT-Savannah). The Project is aligned with Bank's Jobs for Youth Initiative ("Jobs for Youth in Africa Strategy (2016-2025) and Skills Development for Industrialization the Gender Strategy (2021-2025), as well as the African Emergency Food Production Facility (AEFPF). The project is also aligned with the Bank's recent initiative – Dakar 2 Country Food and Agriculture Delivery Compact. It is aligned with the Comprehensive African Agricultural Development Programme (CAADP) and strategic objectives of the Global Agriculture and Food Security Program (GAFFSP) on promoting new technologies and modern farming techniques to increase agricultural productivity and linking farmers to markets.</p> <p>SDG 1- No Poverty SDG 2-No Hunger SDG 10- Reduced Inequalities</p>

	SDG 13-Climate Action Strengthening agricultural value chains (2.2), Improving nutrition and food security (2.3), Supporting enterprise development (3.2), Building skills for decent jobs and expanding economic opportunities (5.2).
Country Performance and Institutional Assessment²:	4.1 out of a total of 6 points (among top ten high performers) in 2020.
Projects at Risk in the country portfolio:	28 % of red flagged operations (31/08/2023)

PROJECT CATEGORISATION

Environmental and Social Risk Categorization	Original Project	Category 2
	Overall Project ³	Category 2 (August 2023)
Does the project involve involuntary resettlement?	Original Project	No
	Overall Project	No
Climate Safeguards Categorization:	Original Project	Category 2, Paris Aligned
	Overall Project	Category 2
Fragility Lens Assessment:	Original Project	Yes
	Overall Project	Yes
Gender Marker System Categorization:	Original Project	Category 2
	Overall Project	Category 2

ADF/ADB KEY FINANCING INFORMATION

Interest Rate (AF Project, Original Project):	NA
Service Charge (AF Project, Original Project):	NA
Commitment Fee (AF Project, Original Project):	NA
Tenor (AF Project, Original Project):	NA
Grace Period (AF Project, Original Project):	NA

Source	Amount (millions)		Financing Instrument
	US\$	[Other currency]	
Global Agriculture and Food Security Program (GAFSP)	20		GAFSP Grant

² Obtain CPIA rating here - [Country Policy and Institutional Assessment \(afdb.org\)](https://www.afdb.org/en/country-policy-and-institutional-assessment) (VPN required)

³ Overall Project is the original project + the AF

Source	Amount (millions)		Financing Instrument
	US\$	[Other currency]	
Government Counterpart Contribution:	1.2		(In Kind)
Total Project Cost:	21.2		
Additional Bank Group Financing as percentage of Original Project total cost	61%		
Reason(s) for additional financing (check all that apply)	Scaling Up a project		

PROJECT DEVELOPMENT OBJECTIVE AND COMPONENTS

AF Project Development Objective:	To increase climate-smart local food production to enhance food and nutrition security for women, youth and vulnerable groups
AF Project Components:	Component 1: Climate-Resilient Agricultural Production for Women and Youth, USD 13,472,732
	Component 2: Women and Youth Participation in Poultry Production, USD 3,559,958
	Component 3: Sustainable Value Chain Development, USD 521,274
	Component 4: Project Management and Institutional Support, USD 3,646,036

AF PROJECT PROCESSING SCHEDULE TO BOARD APPROVAL

Identification:	NA
Preparation Mission:	NA
PCN Approval:	NA
Appraisal Mission:	19-30 June 2023
Planned Board Presentation:	20 November 2023
Effectiveness:	December 2023
Project Implementation Period:	2024 - 2026
Planned Mid-term Review:	2025
AF Project Closing Date:	31 December 2026
Original Project Closing Date:	March 2025

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I. BACKGROUND

1. Ghana is the first country in Sub-Saharan Africa to have gained independence. It has tried various economic models with varying degrees of development. In the mid-2010s it was one of the fastest growing economies in Africa, and at the forefront of poverty reduction. However, since COVID-19 its economy has taken a nosedive with per capita income reducing from US\$5,470 in 2020 to US\$2,175.9 in 2022. Ghana's main development framework include the Investing for Food and Jobs (2022-2025) for the medium term, Ghana Beyond Aid Vision and the Coordinated Program of Economic and Social Development Policies (CPESDP), covering the period 2017 to 2024. These plans are consistent with the Maputo declaration of Comprehensive African Agriculture Development Programme (CAADP) and the Sustainable Development Goals (SDGs). The plans and other key development initiatives reflect Ghana's desire and commitment to transform its economy in accordance with its current development status as a middle-income country and to accelerate job creation and poverty reduction.

2. The country's development plans are in congruent with the Bank's Country Strategy Paper (CSP) 2019 – 2023, which aims to address the country's macroeconomic vulnerability, inherent socio-economic disparities and low-quality jobs reflected in high underemployment especially amongst the youth (50%) while paying close attention to issues of gender and climate change. Agriculture is one of the key areas of Government's economic transformation agenda. This Project is fully aligned with the Bank's Feed Africa Strategy for Agricultural Transformation (2016 – 2025), Jobs for Youth Strategy (2016-2025), Gender Strategy (2021-2025) and the Bank Group's Strategy for Addressing Fragility and Building Resilience in Africa (2022-2026), the Bank's Third Climate Change Action Plan 2021-2025 and the strategic objectives of the Global Agriculture and Food Security Program (GAFSP).

3. The Project has been designed to align with the objectives and priority commodities of Food and Agriculture Sector Development Policy (FASDEP II), the overarching policy that guides the development and interventions in the agricultural sector, providing a framework for modernising the sector and making it a catalyst for rural transformation. The sector policy, the medium-term investment plan "Investing for Food and Jobs: An Agenda for Transforming Ghana's Agriculture (2022-2025) is being implemented through flagship programs such as Planting for Food and Job (PfJ) and Rearing for Food and Jobs (RfJ). The implementation of the Government's Planting for Food and Jobs (PFJ) and the Rearing for Food and Jobs (RFJ) has created an enabling policy environment for participation of the private sector in the agricultural space for increased production in both crop and livestock sub-sectors, processing and market linkages for business promotion. These flagship Program specifically promoted increased production of maize, soya, rice, sorghum, vegetables and poultry for food and nutrition security and also for animal feed using the maize and soya. The Government of Ghana has also developed the Dakar II compact focusing on the development of four (4) major commodities namely maize, soya, rice and poultry which are well aligned to the additional financing.

4. The Savannah Investment Program (SIP) is the base Project for Additional Financing. The overall goal of the Program is to reduce importation of animal protein, enhance competitiveness of the poultry industry, improve small ruminants breeds and contribute to improved food and nutrition security. Specific Program objectives: To increase national food and nutrition security as well as farmers' incomes through: (i) increased agricultural productivity and diversification; and (ii) enhanced creation and strengthening of agribusinesses, to increase incomes of actors along selected value chains on a sustainable basis. The project was approved on 1 September 2019, became effective on 10 April 2020, with a closing date of 31 December 2026. The Program has four main components, namely;

i) Access to finance, ii) Production Development, iii) Agribusiness and Value chain Development and iv) Project management and Institutional support. The Program has been implemented for the past 3 years in 9 Districts and has so far been impactful benefiting over 67,000 small holder farmers and 230 commercial farmers for crop production; 4,000 households for poultry production⁴. The Project has so far disbursed over 70.67% of the UA 20 million ADF loans resources on key Project activities. The base Project (SIP) was supervised in April, 2022 and December 2022 and both supervisions rated the projects overall implementation as satisfactory and on course to achieving its Development Objective. The Project is in full compliance with the fiduciary undertakings in the loan agreement and the Project Appraisal Report. The financial audit reports for the past years have always been submitted on time and accepted by the Bank including that for the 2022 financial year. The current financial management (FM) performance is rated satisfactory and the financial management risk is rated as moderate. The FM arrangements put in place is considered adequate and performing as envisaged.

5. The additional Financing Project's overall objective (PDO) is to increase climate-smart local food production, enhance food and nutrition security for women, youth and vulnerable groups in 12⁵ selected districts in the Savannah Zone, namely: Tamale Metro, Mion, Nanton and Savelugu (Northern Region); East Mamprusi and Mamprugu-Moagduri (North East Region); West Gonja, (Savannah Region); Bawku West (Upper East); Wa Municipal, Sissala East, and Nandom (Upper West); and Krachi East (Oti Region). The expected results will be achieved through: i) promotion of organic fertilizer; ii) Promotion of climate smart agriculture and iii) digitalization of the agriculture sector. Key outcomes of the Project include increase income of beneficiaries and job created, improve productivity of selected crops and enhance food security and nutrition.

6. At least 50,000 beneficiaries are expected to participate in Project activities with at least 45,000 indirect beneficiaries. The Project will establish an integrated production-processing-marketing ecosystem with clear linkages among actors in the private sector. Districts were selected based on intervention areas identified under SIP, poverty levels, access to land, productive assets, and household diets were as well considered in the selection. This additional beneficiary selection will include the use of self-targeting, validated with the latest Comprehensive Food Security and Vulnerability Analysis, Ghana Statistical Service poverty map and the Food and Nutrition Monitoring System, developed by the Statistical Research and Information Directorate (SRID) of MoFA. The base Project could not meet the demands of beneficiaries for Project interventions. The Additional Financing will provide the opportunity to further support a lot more beneficiaries.

II. ADDITIONAL FINANCING

A. Rationale

7. Agriculture in Ghana is predominantly smallholder in nature as most farms are under two hectares in size. Only half or 6.4 million of Ghana's 13.5 million hectares of agriculturally suitable land is under cultivation and only 222,978 hectares are irrigated. Women constitute about 46.4% of the agricultural labour force. In the Savannah Ecological Zone where majority of the agricultural labour force exists, cultivators rely mainly on rain-fed agriculture with irrigation facilities to supplement their production activities in the dry season. Poverty, food insecurity and malnutrition are also high among the population in these Zones. Agricultural productivity and youth participation in

⁴ Including 1,000 women headed households for layer production and 3,000 households for cockerel, guinea fowl and broiler production.

⁵ Only Nanton, Mamprugu-Moagduri and Krachi East are the only additional Districts as compared to the Base Project

the sector continue to be impacted by climate change effects, pest and diseases, especially transboundary pest, like fall armyworm, limited use of improved crop varieties, low adoption of improved technologies among others, low level of agro-processing and effective market linkages. These factors have significantly impacted on food insecurity, particularly in the northern savannah areas of Ghana with unimodal rainfall patterns.

8. The fiscal and socio-economic malaise caused by Russia's Invasion of Ukraine is characterized by supply chain shocks and rise in prices of fuel and commodities like fertilizer. The COVID-19 pandemic exposed weaknesses in Ghana's economy including debt distress and food insecurity. Russia's Invasion of Ukraine has reversed gains in building back better from the impacts of the COVID-19 pandemic sending Ghana's production and forex reserves into a tailspin and culminating in the depreciation of the cedi by more 50%, inflation over 40%. More than 54% of the food items have experienced increases in prices making it difficult for vulnerable households to meet their food and nutrition requirements. Ghana has a high debt burden, with more than 70% of its annual revenue dedicated to servicing interest on its debt. Ghana's debt to GDP ratio increased from 76.1% in 2020 to over 110% in October 2022. The rise in debt was largely attributed to financial sector clean-up costs, energy sector payments and COVID-19 related expendituresⁱ.

9. The impact of the crisis has hit hard on the agricultural sector, the country's largest employer, providing income for an estimated 30% of Ghana's labour force. In 2021, agriculture contributed 19.7% to the national GDP. Beyond this, agriculture provides raw inputs, crucial for the manufacturing sector which contributed a further 11% to GDP in 2021. Agriculture remains a pillar of Ghana's economy both in its significant contribution to foreign exchange as well as employment creation. The food system impacts of the crisis have been most starkly felt in the high price of imports of wheat, fertilizer, and fuel. Ghana satisfies about a quarter (26%) of its wheat consumption from Russia alone. In 2020/21, a total of 990,000 mt of wheat was imported from Russia through the now embattled black sea harbour. A 50% reduction in Russian and Ukrainian wheat exports increased prices by 15%, leading to an 8% reduction in wheat consumption and dietary energy intakeⁱⁱ.

10. The overall rationale is to build the capacity of vulnerable and marginalised populations, particularly food insecure households with less productive capacity to grow food in the quality and quantity that will enhance food and nutrition security at household level. This would be achieved through the provision of inputs (short duration, disease and drought tolerant seed, fertilizer, training and direct extension and other productive assets such as the solar powered micro-irrigation schemes for all year-round production. The above interventions will support build resilience in the agricultural production system, promote household nutrition, enhance smallholder capacity to produce all year round. It will also reduce the use of inorganic fertilizers due to its high of fertilizer and its resulting effects of pollution and promote crop rotation with leguminous crops such as soyabean and cowpea to improve soil fertility, as well as address issues of climate change throughout the promotion of climate smart agriculture, installation of solar-operated small-scale irrigations and enhance the inclusion of more women and youth.

11. Bank's investment in the northern savannah areas of Ghana through the baseline project has supported the commercial production of maize and soya over the past three years through 230 commercial farmers and over 67,000 small holder farmers cultivating in excess of 21,000 ha and over 100,000 ha respectively. These farmers cumulatively produce in excess of 530,000 mt of various cereals including maize, soya and rice. The Project facilitates market linkages between the producers and market offtakers thus creating effective market for the value chain actors. The baseline Project also supported over 4,000 households of women and youth with 120,000 14-week old pullets for egg production and also 30,000 improved breeds for breed improvement of local birds. Over 167 small to medium scale poultry farmers were also supported with about 226,000 birds for a cycle of production. Since this initial support and capacity building, these medium scale poultry farmers as well as the women egg producers

based on the success of the intervention have continued to produce for the market. Over 80% of the medium scale commercial farmers have more than doubled their ban capacity whilst over 60% of the women egg production have expanded their operations. The baseline project is making modest contributions into import substitution and national level food consumption. This Project will also support this modest contribution of the baseline project, with an additional annual production of at least 20,000mt of maize, 5,000mt of soybean, 10,000mt of rice, 1,000mt of cowpea, and 5,000mt of groundnut and contribute significantly towards food security in vulnerable households. This operation will leverage on the existing four large agricultural mechanization service centres to support at least 10,000 hectares of new production fields for smallholder farmers. The operation will also promote Conservation Agriculture (CA) and climate smart agriculture as part of building resilience at community and farm levels. This will include (i) training of Agricultural Extension Agents (AEAs) and community-based lead farmers on minimum soil tillage, (ii) crop rotation to include the use of cover crops and legumes to increase nitrogen reduce diseases and improve soil health, (iii) climate smart inputs such as the drought-tolerant, disease resistant and early maturing crop varieties, and (iv) promote the use of organic manure and build lead farmers capacity for composting for vegetable production.

12. The Additional Finance follows the eligibility criteria for Project Scaling up Checklist in the 2021 revised policy for Additional Financing in the annex, section 8. It demonstrates alignment with the AF eligibility as it is expected to scale up the scope as well as coverage of the original project within the same Project intervention areas. The development objective of the additional financing Project is same as the original project, with the aim to enhance food and nutrition security for women, youth and vulnerable groups by increasing climate-smart local food production. The Project is expected to contribute to Government's flagship programme, Planting for Food and Jobs 2.0 (PFJ 2.0) and Rearing for Food and Jobs (RfJ) which focuses on 11 prioritized commodities including maize, soybean, rice, sorghum, plantain, yam, cassava, vegetables (tomato, pepper and onion) and poultry.

13. Hence, designing the project as an additional financing is a better option than starting a new project as this takes into consideration, the existing implementation structure of the original project to maximise efficiency while accelerating the project development outcomes. Moreover, the overall project is technically feasible, economically, and financially viable; in addition to having a satisfactory institutional, fiduciary, environmental and social safeguards arrangements. In terms of the AF's strategic alignment, just as the original project, the Additional finance intervention is in line with the Bank's Country Strategy Paper's (CSP 2019-2023) which aims to address the country's macroeconomic vulnerability, inherent socio-economic disparities and low-quality jobs, while paying close attention to issues of gender and climate change. In line with the country's development plans, this strategy accords significant role to the private sector in driving Ghana's industrialisation. Pillar 1 of the CSP aims to support industrialization and private sector development activities will focus on enhancing the business environment and catalyzing private sector participation in the industrial sector through policy reforms and investments in critical infrastructure and skills development. Part of Bank's support is to enhance agricultural value chains development, including establishment of agro-industrial parks, especially in the deprived northern regions of the country. This project is fully aligned with these strategic objectives.

B. Expected Results

14. This additional financing from GAFSP will enable the expansion of initiatives being pursued to include more women, youth and vulnerable groups in the agricultural sector for more resilient food systems and introduce initiatives that focus on malnutrition prevention. Key among these prioritized areas for expansion include sensitization of farmers in the appropriate application and use of organic and inorganic fertilizers, capacity development of farmers in production of organic fertilizers, replication of economic enclaves across the country to include more women and youth for resilience building, upscale of integrated nutrition-sensitive agriculture and financial inclusion interventions

and the promotion of climate-smart agriculture. Strengthening the digitalization efforts to include establishment of a national farmer-database, the electronic fertilizer redemption system and evidence generation through strengthening of the Food Security and Nutrition Monitoring System will continue to be pursued.

15. The proposed GAFSP funding to the baseline project, SIP, will complement the Government's efforts to promote the production and utilization of organic fertilizers, especially among smallholder farmers with a particular focus on women and youth, enhance evidence generation, bridge information gaps between the quarterly rounds of the Food Security and Nutrition Monitoring System (FSNMS). WFP will work closely with national stakeholders to leverage existing secondary data (e.g. currency exchange, balance of trade, headline and food inflation, rainfall-NDVI, IPC/CH etc.), including those from the FSNMS, to strengthen predictive analysis in the Hunger Map, which will facilitate near real-time availability of data on key food security indicators (food consumption, livelihood coping strategies) and thus ensuring uninterrupted indicative insights into the evolution of the food security situation on an ongoing basis. The Hunger Map will support to leverage technology for harmonization, analysis, and presentation of data from multiple sources, to aid early warning and prompt timely, and evidence-based response.

16. The project Development Objective is to increase climate-smart local food production, enhance food and nutrition security for women, youth and vulnerable groups in 12 selected districts in the Savannah Zone. The project is expected to contribute to Government's flagship programme, Planting for Food and Jobs 2.0 (PFJ 2.0) and Rearing for Food and Jobs (RfJ) which focuses on 11 prioritized commodities including maize, soybean, rice, sorghum, plantain, yam, cassava, vegetables (tomato, pepper and onion) and poultry.

17. The specific objectives of the project are to increase the household food security and incomes of the smallholder farmers, support household nutrition, especially among the youth and vulnerable women-headed households, improve access of smallholder farmers to climate-smart agricultural inputs; enhance access of smallholder farmers to agricultural mechanization services through provision of handheld equipment; provision of solar powered micro-irrigation kits for dry season farming; and promotion of household poultry production to enhance farmers' access to nutritious food.

C. Project Components

18. The proposed project has four main components, namely: i) climate resilient agricultural production for women and youth; ii) women and youth participation in poultry production; iii) sustainable value chain development; and iv) project management and institutional support.

Component 1: Climate-Resilient Agricultural Production for Women and Youth

19. This component seeks to provide training and drought-tolerant and early maturing seeds of maize, soyabean, rice, groundnuts and vegetables to support farmer production for improved household incomes and enhanced nutrition. This component will also seek to create an enabling environment for an all-year-round production by farmers to improve income, food and nutrition security. It has two sub-components:

Sub-component 1.1: Production of maize, soya, rice, cowpea and groundnuts for food and nutrition security: Under this sub-component, smallholder farmers, particularly women and youth will be supported with climate-smart farm inputs at a subsidized rate to be decided by government to produce 30,800ha maize, soya, rice, cowpea and groundnuts. It will build the capacity of 12,000 beneficiaries (60% percent women and 30% youth aged 18-35) in conservation agriculture practices (minimum soil disturbance/tillage, permanent organic soil cover and crop diversification) for sustainable production. Training in postharvest management will be given to smallholders to reduce losses and ensure food safety by reducing aflatoxin presence in stored harvests. Groundnut, cowpea, soyabean which are

deemed ‘women crops’ and cultivated predominately on a small-scale of one acre or less and mainly for household consumption by communities in the Savannah Ecological Zone, will be promoted. These crops are targeted to leverage women’s experiences and knowledge for income generation and more sustainable livelihoods. Good agricultural practices in maize, rice, soyabean, cowpea and groundnut production will be promoted to increase productivity and utilization. Beneficiaries reached in the first year will be targeted in the second year to enable maximum impact. Training in integrated crop pest management including biological control and management of Fall Armyworm and aspergillus mold on maize, soyabean, rice, cowpea and groundnuts will be carried out. It is envisioned that beneficiaries will gain technical knowledge and financial capability to self-finance and/or increase acreage. Specific activities under this component are described in the Technical Annex.

Sub-component 1.2: Establishment of groundwater solar powered micro scale irrigation schemes for vegetable production

This sub-component will install solar powered micro scale irrigation schemes that will use surface and groundwater in 88 identified sites to support at least 5,000 beneficiaries, with at least 60% women and 30% youth to ensure all year-round production for sustained food and nutrition security. This component will also provide solar powered pumps in riverine and already existing irrigation schemes where the cost of lifting water is high. This will encourage job creation, increase incomes for women and youth, enhance nutrition within households and schools, while reducing rural-urban migration. The component will design and implement an intensive farmer capacity development program (both workshop and field based) to ensure that farmers have the know-how and adopt modern vegetable production and post-harvest handling techniques to be able to improve their productivity and output. Specific activities under this component are described in the Technical Annex.

Component II: Women and youth participation in poultry production

20. Under this component, small holder farmers, particularly women and youth, will be equipped and trained in the raising of layers for egg production. 10,000 improved breeds of cockerels will be procured to support 2,000 beneficiaries (50% women and 50% youth) for cross fertilization of the local chicken to improve their stock. 25,000 guinea keets (6weeks), vaccines and medication will also be procured to support 1,000 beneficiaries (50% women and 50% youth) to boost guinea fowl production under semi-intensive system. These will be provided at a subsidized rate. The intervention will target districts and communities with a high prevalence of malnutrition and stunting. Egg consumption will be promoted among households with pregnant/lactating women and young children. Specific activities under this component are described in the Technical Annex.

Component III: Sustainable Value Chain Development

21. This component seeks to build capacities of value chain actors to ensure quality standards, delivery of quality services and access to finance and markets. It encompasses promotion of quality standards for maize, soya, rice, cowpea, groundnut, eggs, and poultry in collaboration with Ghana Grains Council, Poultry Farmers Association and Ghana Standards Authority; enhance market information, and link producers with off-takers. A revolving fund worth USD 1million will be established and housed with the selected PFI managing the SIP Poultry Revolving Fund to benefit 6,000 beneficiary value chain actors to improve their access to low and competitive interest financial services for production and product development, leveraging the existing SIP Poultry Revolving Fund. The operations of the Revolving Fund will be consistent with the SIP PRF. Specific activities under this component are described in the Technical Annex.

Component IV: Project Management and Institutional Support

22. This component includes support to the overall coordination of the project and knowledge management. Activities will cover project implementation, preparation of workplans and budgets, procurement plans, establishment of a comprehensive results-based monitoring and evaluation system and knowledge management materials, conducting beneficiary mapping, mid-term review, surveys, preparation of quarterly, annual and audit reports. It covers the effective coordination of the entire Project. Since this project is anchored on the Savannah Investment Programme (SIP), the same Project Management and Coordination Unit, and the National Project Steering Committee, will be engaged for the duration.

D. Revised Project Cost and Financing Arrangements

23. The total cost of the project is estimated at USD 21.2 million, exclusive of taxes, and based on 2022 market prices, comprising USD 18.3 million as investment, USD 1.70 million as technical assistance and USD 1.2 million as in-kind contribution from the Republic of Ghana.

24. The total project cost (USD 21.2 million) will be financed by a GAFSP grant of USD 20.0 million (94.3%) covering all planned activities including provision of climate-smart inputs, procurement and installation of micro-solar irrigation schemes, capacity building and others. The Republic of Ghana will provide in-kind contribution for a total estimated cost of USD 1.2 million (5.7%) through the provision of office space and allied facilities and subsidy to farmers on mechanisation services. The summary of estimated costs by component and category of expenditure are presented in Tables 1, 2, 3 and 4. Detailed project cost tables are presented in Annex 2-3 of the Technical Annexes to this report.

Table 1: Estimated Cost of the Overall Project by Component in USD ('000)

Components	Original Project		AF Project		Total	% of Total Project Cost
	Foreign Currency	Local Currency	Foreign Currency	Local Currency		
Component 1	40.50	6,049.50	942.91	11,542.68	12,485.58	58.89
Component 2	7,223.00	9,155.00	-	3,392.60	3,392.60	16.00
Component 3	2,755.00	2,645.00	-	499.00	499.00	2.35
Component 4	2,380.40	2,441.60	200.00	3,167.12	3,367.12	15.88
Total Base Costs	12,398.90	20,291.10	1142.91	18,601.39	19,744.30	93.13
Physical contingencies	298.71	690.59	29.25	435.58	464.83	2.19
Price contingencies	354.99	464.39	32.23	958.64	990.87	4.67
Total Project Costs	13,052.60	21,446.08	1,204.40	19,995.40	21,200.00	100

Table 2: Overall Project Sources of Financing ('000)

Sources of Financing	Original Project		AF Project		Total	% of Total Project Cost
	Foreign Currency	Local Currency	Foreign Currency	Local Currency		
Global Agriculture and Food Security Program (GAFSP)	-	-	20,000	-	20,000	94,3
African Development Fund	8,329.11	11,672.48	-	-	-	
Government of Ghana	870.86	2,523.78	-	1,200	1,200	5,7
Beneficiaries	258.43	1,344.38	-	-	-	-
Total Project Costs	9,458.40	15,540.64	20,000	1,200	21,200	100

Table 3: AF Project cost by category of expenditures

Category	(000'USD)			% of Base Total Cost	% of Total Project cost
	L.C.	F.E.	Total		
Goods	12,018.75	891.19	12,909.77	65%	58.69%
Works	913.94	0	913.94	5%	16.00%
Services	4,479.76	251.72	4,731.48	24%	2.35%
Operating Costs	1,189.12		1,189.12	6%	15.88%
Total Base Costs	18,157.18	1,142.91	19,744.30	100	93.13%

Physical contingencies	435.58	29.25	464.83	2	2,19%
Price contingencies	958.64	32.23	990.87	5	4.67%
Total Project Costs	20,053.22	1,204.40	21,200.00		100%

Table 4: AF Project Expenditure Schedule

Component	(USD'000)			
	PY1	PY2	PY3	Total
Climate-resilient Agricultural Production for Women and Youth	9,128.14	3,441.03	903.56	13,472.73
Women and Youth participation in poultry production	3,551.65	8.31	-	3,559.96
Sustainable Value Chain development	455.58	65.69	-	521.27
Project Management and Institutional Support	1,525.70	990.29	1,135.35	3,646.04
Total Project Cost	14,655.77	4,505.32	2,038.91	21,200.00

E. Implementation Arrangements

25. The Executing Agency for this Project will be Ministry of Food and Agriculture. The Ministry has already established a Project Coordination and Management Unit (PCMU) that is implementing the Savannah Investment Programme. The PCMU is headed by a National Project Coordinator and has an Investment Officer, Animal Production Specialist, Agricultural Engineer, Monitoring and Evaluation Specialist, an Environmental Safeguard Specialist, Agronomist, Value Chains Expert, Procurement Officer, Financial Controller and Accounts Assistant. The only staff expected to be recruited for the PCMU is a Gender Specialist and M&E Specialist. The PCMU has already developed financial manuals, installed accounting software, and developed a procurement plan for the implementation of this project. The PCMU also has relevant logistics including an office space based in Tamale, within the Northern Savannah Zone, to allow for proximity to beneficiaries. PCMU also has office computers and vehicles adequate for the implementation of field operations. The team will collaborate with state agencies, development partner projects, Non-Governmental Organizations (NGOs), Civil Society Organizations (CSO) and private sector during project implementation. This will offer the opportunity for joint planning, reviews and monitoring of project activities to avoid duplication. The existing National Project Steering Committee of SIP will be used to provide strategic direction and oversight for Project implementation.

Procurement

26. In accordance with the provisions of paragraph 4.3 of the Procurement Policy for operations financed by the Bank Group, all procurement of goods, works and consultancy services financed by the Bank's resources, will be carried out in accordance with the Procurement Policy for Operations Financed by the Bank Group ("AfDB Procurement Policy"), October 2015 edition and according to the provisions mentioned in the Financing Agreement.

Executing Agency (EA) Assessment

27. The Executing Agency for this operation will be the Ministry of Food and Agriculture and the World Food Program (WFP). Given closer linkages of this project with the Savannah Zone Agriculture Productivity Improvement Programme (SAPIP), Savannah Investment Program (SIP) and the Savannah Agriculture Value Chain Development Project (SADP) financed by the Bank, the same Project Coordination and Management Unit (PCMU) of the three (3) projects will be used for one part of this project.

The implementation of subcomponents of components 2, 3, & 4 of the project will be under the responsibility of the World Food programme (WFP) that will act on behalf of the Government of Ghana. This institution is a specialized United Nations organization that is recommended to be used when necessary in emergency situations by the provisions of paragraph I.2.6 of Volume 2 of Part A of the Procurement Operations Manual of the African Development Bank (OPM) in order to support the government.

A procurement capacity of the PCMU was assessed for the part of the project under its responsibility, and it was noted that two (2) procurement experts already on board will be in charge of the project (a **Principal Procurement & Supply Chain Manager and a Programs Procurement Officer**). The highest qualification of the **Principal Procurement & Supply Chain Manager** is an MSc in Supply Chain Management with seven (7) years procurement experience working with MoFA with major experiences in the procurement of donor funded projects including supporting the procurement of the Bank's funded Savannah Investment Program (SIP) and the Savannah Agriculture Value Chain Development Project (SADP) from 2020 to present. The Programs Procurement Officer holds a bachelor's degree in Social Sciences with major on the job experiences on the borrower's procurement system including the use of procurement manuals and standard bidding documents. He has been procuring the Bank's funded, Savannah Zone Agriculture Productivity Improvement Programme (SAPIP), Savannah Investment Program (SIP) and the Savannah Agriculture Value Chain Development Project (SADP) from 2020 to present with experiences in the procurement of donor funded projects including the Ghana Agriculture Sector Improvement Program (GASIP) funded by IFAD (2018-2020) and other projects funded by the World Bank. Project implementation capability assessment of MoFA in general and the assessment of the EA's organizational structure for implementing the project including the available capacity for delivering on the procurement activities have been undertaken. These assessments revealed that the resources, capacity, expertise, and experience of MoFA are currently adequate to carry out the procurement function (for the part of the project under the PCMU responsibility) partly due to the availability of the head of procurement at MoFA who has oversight responsibilities over the procurement unit of the project. However, It appears that apart from the PCMU other resources, capacity, expertise, and experience of MoFA are not entirely adequate to carry out the procurement function for this project due to other commitments from other ongoing projects that MoFA is handling. It has also noted that in general, there is a limited knowledge and experience on the Bank's current procurement framework by the MoFA procurement team.

Procurement Risks and Capacity Assessment (PRCA)

28. The assessment of procurement risks at the Country, Sector, and Project levels and the procurement capacity of the Executing Agency (EA), were undertaken and concluded to be a Moderate procurement risk for Project implementation. This output informed the decisions on the procurement regimes (BPS and Banks PMP) to be used under the Project. Appropriate risk mitigation measures have been included in the procurement PRCA action plan in Table 4.5e paragraph B5.9 of the Technical Annexes.

Detailed Procurement Method and Procedures

29. The procurement procedures have been assessed considering the market situation, the number of needs, the capacities of the actors, the risks involved and the constraints of the relevant texts. Details of these modalities, including the applicable procurement system, cost estimates, methods of procurement, type of control, and the timetable agreed between the Recipient and the Bank, are described in the Procurement Annex to this Project Appraisal Report.

Financial Management, Disbursement, and Audit

30. **Financial Management:** The Ministry of Food and Agriculture (MoFA) will execute the Building Resilience for Food and Nutrition Security in the Northern Savannah Ecological Zone-Additional Finance to Savannah Investment Program through an existing PCMU (currently implementing SAPIP, SIP & SADEP) under the direct supervision of the Project Coordinator. The Project Accountant is supported by two (2) account officers who are also familiar with donors funded Projects including AfDB. The proposed Project will adopt the current FM system including accounting package, FM manual and Project Implementation Manual (PIM) (with minor modification) to guide Project implementation. The existing accounting software (Sun System version 6.4) will be used to record and process accounting transactions and prepare the Project financial reports. On a quarterly basis the PA will generate from the accounting software, unaudited interim financial reports (IFRs) in line with IPSAS Cash Basis, for the benefit of the MoFA and shared with the Bank within forty-five (45) days after the end of each quarter. The internal control procedures of government at the MoFA, appear adequate and will be adopted by the proposed Project. The Internal Audit Department of MoFA is adequately staffed and will periodically review the Project operations and report to the National Project Steering Committee (NPSC) that will ensure the implementation of Internal Audit Recommendations.
31. **Disbursement:** Out of the four disbursement methods used by the Bank in disbursing funds to its Projects, the Mission agreed that the Direct Payment and Special Account methods will be used under the Project. The Direct payments will be used for payments against larger contracts signed between Project management and contractors/suppliers/ service providers. While the Special Account method will be used for meeting recurrent/administrative expenses and smaller contracts. The Reimbursement and Reimbursement Guarantee methods would also be available to the Project if the need arises. The Project will open a dedicated USD special account (SA) at the Bank of Ghana (BoG) to receive GAFSP resources from the Bank. A local currency (GHS) account will also be opened at the same bank to receive transfers from the SA for payments of eligible local expenses. All Project accounts will be managed by the PCMU. All disbursements shall be in accordance with the Bank's disbursement procedures outlined in the Disbursement Handbook 2020.
32. **External Audit:** The Auditor General (AG) of Ghana will oversee the audit of the Project on an annual basis, in accordance with the AG's legal mandate and use of country systems. In instances where the AG is unable to carry out the audit, an independent external audit firm will be appointed by the AG, through a competitive recruitment process to carry out the audit. The audit will be conducted in accordance with an audit term of reference (TORs) agreed with the Bank. The audited financial statements for each year and the related management letter should be submitted to the Bank within six (6) months at the end of each financial year audited, for review and acceptance. Audit fees will not be paid for the related audits carried out by the AG except reasonable incidental audit expenses (to be paid from Project resources), which have been duly submitted, reviewed, and accepted by the Bank
33. **Monitoring and Evaluation:** The Bank's current supervision process and performance ratings are anchored on two main parameters: the development objective (DO) and the implementation progress (IP). There is a twofold approach to assessing DO: the likelihood that the Project will realize its development objectives and the likelihood that the benefits so realized will be sustained beyond the Project completion. The IPR has a strong focus on monitoring and reporting on results (outputs and outcomes). Performance assessment is based on the Project's Results-Based Logical Framework (RLF) as included in the appraisal report or its subsequent revisions. The RLF describes the causal link – the results chain – between input, activities and outputs that lead to a specific outcome. The PCMU will monitor and evaluate overall impact of the Project including environmental and social compliance and performance and compile the Project's quarterly and annual reports for dissemination to the Bank Group, MoFA, and other relevant stakeholders. A mid-term review (MTR) will be undertaken after two years of Project implementation. Similarly, upon completion of Project implementation at the end of year four, the PCMU will prepare a Project completion report.

34. Assessment of the capacity of various Government agencies, including the Ghana Statistical Service in the production and management of quality official statistics based on international standards, was found to be satisfactory. Statistics, Research, and Information Directorate (SRID) under MoFA provides agriculture statistics in Ghana. In addition, the Policy Planning, Monitoring and Evaluation (PPMED) is responsible for monitoring and evaluation under MoFA. SRID and PPMED would be supported to aid the Project in ensuring the collection and processing of good quality data, monitoring and reporting. The data analysts and the M&E Officer of SADEP will ensure quality and accountability of monitoring; information management; facilitation of knowledge building; and knowledge sharing on monitoring and evaluation. The Project will involve stakeholders in the M&E process through quarterly review meetings on performance, corrective actions required for better project targeting and impact on beneficiaries. An annual budget of approximately USD 150,000 is assigned for project monitoring and evaluation.

Table 5: Monitoring Process

Time Frame	Milestone	Monitoring Process/Feedback loop
Year 1	Baseline data collection(update)	M&E officer, Project Team, and Data collectors/analysts
Year 1-3	Project Implementation	M&E Officer, Project Team, Service Providers, and beneficiaries
Year 1-3	Impact of Project activities	M&E officer, Project Team, Project Steering Committee, Service Providers, and beneficiaries. Annual process along Project implementation with progress report
Year 2	Mid-term review	Beneficiaries, Bank and Project Team
Year 1-3	Audit Reports	Project Team and Auditors, annually
Year 3	Project Completion Report	Beneficiaries, Bank and Project Team

35. **Governance:** Based on lessons learnt from the implementation of previous operations, no governance-related risks are identified for this operation. The Government of Ghana has adequate legal framework, including the Public Financial Management Act, 2016 (Act 921), the Public Procurement Act 2003 (Act 663) and amended in 2016 (Act 914) to promote competition and ensure that competitors are treated fairly, promote the integrity and fairness, increase transparency and accountability and to increase public confidence in those procedures. The Public Financial Management and Public Procurement laws in Ghana have adequate provisions to deal with fraud and corruption related issues.

36. The main input subsidy policy framework under which this operation will be anchored had gone through revisions aimed at providing smart subsidy to farmers. A nationwide electronic registration of farmers and value chain actors commenced with Bank financing under the Savannah Zone Agriculture Productivity Project (SAPIP) to minimise fraud and corruption as well as better targeting of subsidies. SAPIP supported the registration of 500,000 farmers with MoFA taking over the program with an additional 1.5 million farmers.

37. **Sustainability.** This Project will work within the national and decentralized state structures such as the departments of agriculture at the regional and district levels. Capacities of staff of state institutions will be strengthened and resourced to provide improved services such extension and technical advisory delivery to smallholder farmers to ensure sustained productivity. Comprehensive institutional and stakeholder analysis has been undertaken to identify capacity needs or gaps. Farmers will be trained in climate smart agriculture production practices, post-harvest management, group dynamics, negotiation, and procurement skills, to enable them undertake contracts on their own long after the project has ended. Farmers will as well be trained on water management systems to enhance utilization of water resources to ensure all year production.

38. All capacity building or strengthening programmes will include asset management to equip beneficiary actors and implementers with skills and knowledge in proper handling, usage, and maintenance of assets towards enhancing their shelf life. Smallholder farmers will be linked with existing agro-processing facilities located within the Project area to enhance their market access. Farmers will be trained to produce for household food consumption and for agro processing in the quality acceptable to private sector actors. Promotion of quality and standards will ensure sustainable access to markets, especially for agro-processing. Private sector entities will be involved in the production, marketing, and distribution of climate smart agro inputs and other support services including mechanization for land development and preparation, sowing and harvesting. Access to finance and investments, market linkages and partnership development of beneficiaries will be strengthened.

39. **Risk Management.**

Table 6: The key risks and mitigation measures are presented below.

No.	Risk	Mitigation
1	Changes in the Project management team may lead to a loss of Project knowledge and a new Project management team will delay initial disbursement processes.	Since the Project is anchored on the Savannah Investment Program, the same PCMU will be used for the implementation of this initiative therefore reducing the potential delay in rate of initial disbursement. The Project intends to use advanced procurement system which was used on the baseline Project and has experienced staff to undertake it. This is expected to lead to faster disbursement. The procurement procedures have been assessed considering the market situation, needs, the capacities of the actors, the risks involved and the constraints of the relevant texts.
2	Administrative and legal delays in signing of tri-partite agreement between Savannah Investment programme/AFDB/WFP.	Mitigating action: Early drafting of agreement and distribution to headquarters for administrative and legal review or seek to build from existing agreements in other countries where GAFSP funding has been successful, adopting a similar arrangement employed for The Gambia with AfDB and WFP working together on a similar project.
4	Weak Capacity of Contractors and Service Providers to deliver on time and quality	Adoption of a simplified procurement procedures and pre-qualification of contractors based on proven track record during procurement process will minimize the incidence of non-performing contractors and service providers. Where possible, implementation agreements will be signed with farmer organizations with capacity to implement key activities such as composting and promotion of organize manure at community level. Enhanced engagement of civil society will also be pursued.

40. **Knowledge Building.**

The M&E system will track the causality linkages between activities, outputs, outcomes, and impact as outlined in the results-based logical framework. Data for analysis will be captured from the M&E database, supervision missions, mid-term report, and periodic impact assessment and field exchange visits of the stakeholders. Knowledge will be generated through the promotion of conservation agriculture and the development of an ecosystem that supports agribusiness development, including the coordination of agricultural services. For the purposes of publicity and sharing of Project results, the Project could recruit a local firm as and when the need be. Farmer exchange visits will serve as sources of innovative knowledge and information sharing learning tools empowering farmers and other actors of the value chain to train their peers, share knowledge and experiences, thus reducing their overdependence on the public extension agents. Knowledge will be disseminated based on the achievement of Project success stories and would be documented in brochures, impact stories as well as Bank's website and website of the MoFA. The base Project has experience in knowledge

management and will therefore apply same skills and knowledge to develop similar knowledge materials for the publicity of the Project.

III. PROJECT FEASIBILITY

A. Technical Analysis

41. Analysis of the technologies promoted through the Project interventions indicate their simplicity, ease of adoption by smallholder farmers, already demonstrated and high capacity for upscaling. Activities to be implemented include supply of climate smart and drought tolerant seeds for smallholder farmers, support seed multiplication and promotion of organic manure together with blended fertilizer. The additional financing will support the procurement of hand-held equipment such as planters, boom sprayers and threshers which the AMSECs will manage with smallholder farmer groups in the operational areas. This will enhance timeliness of farm operations, including mechanized planting, crop husbandry services and harvesting services, leading to more land under production and a reduction in losses. Basic repairs and maintenance training will be organized for the small holder farmers in this regard.

42. The Project will promote Solar-operated micro-irrigation for smallholder farmers. This will enhance production capacity for women, youth and vulnerable groups. Nutritious food production, including vegetables, will be promoted under this Project. This activity is particularly important for vulnerable communities who do not have access to water bodies such as rivers and lakes but have good ground water potential. The use of solar will address issues of power to pump water to home gardens. The additional financing will consolidate and expand the support to layer production through mentorship/entrepreneurship programs, training on animal husbandry, value addition and market linkages.

B. Financial and Economic Analysis

43. A financial assessment of the Project was undertaken using activity models and based on prevailing market prices. The key assumptions underlying the analyses include: (i) The Project will procure and distribute 95,000 birds to small holder farmers for egg production and breed improvement for poultry value chains development; development of additional 30,960Ha for maize, soybean, rice, groundnut, cowpea and vegetable production under climate-smart practices; and the opportunity cost of capital (OCC) used for discounting future benefits was estimated to 12%. (ii) For the economic analysis, (a) hired labour value was adjusted by a conversion factor of 0.75; (b) family labour was valued at the daily rate of 0.83 per day. These analyses were carried-out with financial and economic costs generated using COSTAB 32. Summary of financial and economic analysis is further elaborated in Annex B6 in Volume II of the appraisal report. The Project is expected to generate the following benefits: (i) increase in food production; (ii) increased private sector investment; (iii) improve average household income; (iv) provide employment for smallholders and other value chain actors; and (v) enhanced animal health.

Table 7: Overall Project Key economic and financial figures (for cost benefit analysis)

FIRR (base case)	(18%) NPV (base case) in USD 7,195,682
EIRR (base case)	(21%) NPV (base case) in USD 11,765,825

44. Financial Analysis: Based on the above assumptions, the financial analysis generated Net Present Value (NPV) of USD 7 195 682 and financial internal rate of return (FIRR) of 18 %, as captured in the technical annexes (B6). Based on the above analysis, the Project is deemed financially feasible. The FIRR of 18 % is higher than the opportunity cost of capital (12 %).

45. **Economic Analysis:** the economic feasibility study involved converting the market prices used in the financial analysis into shadow prices (which modify the prices affected by market inefficiencies), and taking into account the externalities that lead to social costs and benefits that are not considered in the financial analysis because they do not generate real financial expenditure or revenue (e.g. environmental impacts or redistribution effects)). For this purpose, a conversion factor has been used to transform market prices into fictitious prices. The economic analysis resulted of an NPV of USD 11 765 825 and the economic internal rate of return (EIRR) of 21% as captured in the technical annexes.
46. **Sensitivity Analysis:** The Sensitivity analysis indicates that, for various scenarios, the EIRR is strong to changes in the main parameters and exceeds the required 12% rate. Based on the different cost budget model used for the analysis, the profit may reach 1,472 USD/mt for maize, 550 USD/mt for rice and 1150 USD/mt for soybean. For the maize, the profit may be generated with the assumption that profits would be sustained even with productivity of 2.8 MT / ha.
47. **Additional Positive Effects:** The proposed Project will reduce dependency to imported maize, rice and soybean for local consumers, feed industry, local market and restaurants. The local demand is supplemented by imports, especially rice and poultry where a large proportion of local demand is met by importation. It will have positive impact on women and youth's ability for local food production and enhance better nutritional outcomes.

C. Environmental and Social Safeguards

48. **E&S Risk Categorization:** The Project category is classified as Category B (moderate risk) in accordance with Schedule 2 (Regulation 3) of the Ghana Environmental Assessment Regulations 1999, LI 1652. Sections 3.1.3, 3.1.5, 3.2.5, and 3.2.7 of the EIA Guidelines for the Agricultural Sector Projects, SIP AF is classified as category B (moderate risk) for farmland sizes between 2-8.3 ha. This category is consistent with Category 2 of the AfDB Integrated Safeguard System (ISS) requirements and was validated in ISTS and updated in SAP on 9th August 2023.
49. **E&S Risks and Impacts:** The AF will support individual farmers who are dispersed in 12 districts of the Savannah Ecological Zone of Ghana. The subprojects or the individual farmer's undertakings will be on existing farmlands. The size of these undertakings is very small and when individually taken will have low environmental and social risks. The use of agrochemicals, especially fertilizers, which the project will procure for farmers will pose moderate environmental and social risks. The PCMU prepared and disclosed in the country on 20th June 2022 and disclosed by the Bank on 22nd June 2022 a PMP to guide its operations.
50. **Parent Project E&S Performance:** The Parent Project, SIP is Category 2 and was approved in October 2019. An ESMF for the Project was approved by the Bank on 31st of July 2019 and disclosed by the Bank on 26 August 2019 before board approval in October 2019. The current E&S performance rating is satisfactory. The satisfactory rating is attributed to the satisfactory implementation of key activities in the ESMP, including the establishment of 50 Ha Off-set of tree species, sensitization of Project beneficiaries on bushfires and safeguards-related issues, and plantation of additional 20,690 economic tree species planted as compensation for vegetation loss.
51. Thus, a pest and pesticide management plan (PMP) would provide guidance for the SIP AF activities. The borrower is not required to prepare further instruments since and ESMF for the Parent Project and PMP have been prepared and disclosed. The Project has allocated USD1,240,000 for E&S implementation, which includes ESMP implementation, capacity building, monitoring, grievance redress, and annual independent environmental and social audits.
52. **Involuntary Resettlement:** There are no physical or economic displacements by the Project as the project activities will be implemented on existing farms of smallholder producers and infrastructure will also be within existing schools. Hence, like the initial Project, no Resettlement Action Plan (RAP) will be prepared for the Project.

53. **E&S compliance:** Based on the foregoing, the project is compliant with the Bank's E&S requirements for approval by the Board. The Borrower will submit quarterly E&S implementation report, and annual independent E&S performance audit report. The Environmental and Social Compliance Note (ESCON) has confirmed the aforementioned which will be reflected in the financing agreement.

Climate Change and Green Growth

54. Across Ghana, climate risk assessments indicate that more erratic and intense rainfall will continue to occur during the rainy season, along with lower precipitation levels during the dry season. Intense rainfall is predicted to result in flooding and flash floods, as well as riverbank erosion. Ghanaian agriculture is mainly climate-dependent and recognized as one of the most vulnerable sectors to climate change, with irrigable land less than 3%. Indications are that the Savannah Ecological Zone of Ghana is identified as a climate hotspot and frequently experiences variability in weather and rainfall patterns. The Zone also experiences intermittent drought and heavy downpour leading to flooding causing crop failure, fisheries and livestock destruction, loss of biodiversity, riverbank erosion, saltwater intrusion, and infrastructure damages across the Savannah Ecological Zone. Given the climate change impacts experienced in the area, the operation is assessed as Category 2 on the Bank's Climate Safeguards System, meaning it is vulnerable to climate risks. The main climate risks are reduced and erratic rainfall, frequent and intense floods and droughts and outbreak of crop and livestock pests and diseases.

55. The Project is designed to build the resilience of the targeted farmers in the Savannah Zone against the above climate risks. Specific activities that will build climate resilience include: provision of improved, early maturing and drought-tolerant seeds to 12,000 farmers; promoting use of organic manure and blended fertilizers; training framers and extension agents on conservation agriculture, good agricultural practices and integrated crop and pest management; provision and training on basic repair and maintenance of hand-held equipment; provision of 108 solar powered micro scale irrigation schemes to facilitate year-round production; promoting poultry as an alternative livelihood; and provision of drought and disease-resistant seeds of nutritious and profitable vegetable varieties to 9000 farmers. Moreover, the installation of the 108 solar irrigation kits of different power ratings will reduce emissions associated with use of diesel water pumps currently prevalent in the area. Some 108 solar irrigation kits of different power ratings will be procured and installed. In the absence of these solar kits, the communities would normally use diesel water pumps. The volume of diesel that will be avoided with the use of solar kits in the 88 sites (211.2 ha) is estimated at 136,080 liters. The GHG emission avoidance associated with the use of the solar kits stands at 364.7 tCO₂ per year. Given its emission avoidance potential and contribution to building resilience against climate change, the Project is assessed as aligned with the Paris Agreement on Climate Change as well as with the Ghana's revised Nationally Determined Contribution under the Paris Agreement, National Climate Change Policy, and National Climate Change Adaptation Strategy. Annex 3-4 presents the climate risk screening and Paris Alignment note of the operation.

D. Other Cross-Cutting Priorities

Poverty reduction, Inclusiveness and Job Creation

56. The overall country policy framework on agriculture sector is hinged on import substitution strategy aimed at harnessing the competitiveness of the country poultry and the agro-processing sub-sectors. Some successful interventions under this policy framework are the commercial production of maize and soybean, being main raw materials for the poultry feed in the industry and the promotion of broiler production at reasonable cost to stay competitive in the industry. The policy as well aims at improving food security, create employment opportunities and reduce poverty, through provision of improved climate resilient seeds, agrochemicals, blended fertilizers, mechanization services and capacity building on good agricultural practices and post-harvest management. Individuals, particularly women and youth that suffered the effects of climate change and resilience and astronomical increases in input prices as a result of COVID-19 and Russia's Invasion of Ukraine at both farm and community levels will be targeted and supported to build and enhance their climate change resilience, nutrition and income. Interventions with mentoring, orientation, capacity building,

and sensitization of the targeted groups on sustainable agricultural production under CA practices that will feed into the country's job creation and poverty alleviation strategy will be prioritised.

Opportunities for Building Resilience

57. **The project's area, mainly in the north, is affected by poverty, food insecurity and the spill over effects from terrorist's groups from Sahel.** Agriculture remains the principal means of livelihood of Northern, Upper East and Upper west regions. All these areas are highly affected by poverty which remains above 50%⁶. For most agricultural households, frequent droughts or flooding have affected yields and lower revenues. According to the Cadre Harmonize for identifying risk areas and vulnerable populations in Food and Nutritional Insecurity in the Sahel and West Africa between June and August 2023, approximately, 1,300,000 (4.0%) and 72,000 (0.2%) people are estimated to be in crisis and emergency acute food insecure phases respectively. The project area is facing significant pressures due to climate change. The country has experienced 79 natural disaster events, mostly floods and storms, that have caused 279,000 internal displacements as of 2022⁷. According to recent research⁸, Upper East, Savannah and Northern regions have moderate violent extremism threats while Upper West and North East are characterized by high threats of violent extremism going beyond 0.5.

58. **The project will strengthen resilience and improve social cohesion.** It will reduce poverty and improve the ability of farming households to meet their welfare expenses and food needs. By addressing certain economic deprivations, root causes of violent extremism, the project will contribute to improve social cohesion, especially given the proximity of the target zone to the Sahel countries. Nearly 40% of agricultural households will increase their incomes and 10,000 jobs will be created for young people and women. Transparent and participative approaches will be implemented to "do no harm". The project aligns with the Bank's strategy to address fragility and build resilience (2022-2026) as it will promote (i) peace, (ii) community-based resilience and (iii) will catalyse investment for private sector.

Gender Equality and Women's Empowerment Promotion

59. This Project is categorized as GEN II in the AFDB Gender Marker System because of its strong focus on strengthening women's livelihoods and food and nutrition security at the outcome level. The Project is aligned to the AFDB Gender Strategy (2021-2025) specifically on improving women's access to finance, viable livelihoods, skills, increased incomes and food and nutrition security. The Northern Savannah Ecological Zone has some of the highest levels of malnutrition and food insecurity in Ghana especially among women and children. Land ownership in the Zone is largely male dominated due to cultural and traditional practices. Often, women may lease land, typically 1 to 5 acres, for the cultivation of annual crops.

60. With limited resources to purchase improved seeds and other agro inputs, production levels remain too low to sustain food and income needs. Women face immense barriers to education in the poor rural areas of the Zone. In addition, resource-poor girls from farming communities typically benefit from only 3 years of formal education by ages 20 to 24. Due to their relatively low incomes and access to agricultural inputs, the Project will support women with climate-smart farm inputs for the production of maize, soya, rice, cowpea and groundnuts. Through women's agricultural groups and cooperatives, the Project will build the capacities of women in good agricultural practices including, integrated pest management, conservation agriculture, postharvest management, and business management among others through extension services and VSLAs.

61. Land is mostly owned by chiefs and landowners; the Project will dialogue with chiefs and landowners to release land to targeted women for their farming activities. Conservation agriculture practices will help increase yields and productivity while preserving the soil for future generations. Production and marketing-oriented training will increase the efficiency of the limited land under cultivation, its total yield and enable women to dedicate their available resources to other critical

⁶ TOMOMI TANAKA et al., Ghana's challenges: Widening regional inequality and natural resource depreciation

⁷ IDMC. (2023). Ghana: Disaster Data. See <https://www.internal-displacement.org/countries/ghana>

⁸ Vulnerability Assessment on The Threats Of Violent Extremism And Radicalization In Northern Regions Of Ghana, United Nations Development Programme (UNDP), Ghana 2023.

household needs covering areas like health and education. The promotion of poultry production (layers and broilers) will address issues of maternal and child malnutrition through improved access to eggs while broilers will provide much needed income for women, this will be complemented with gender transformative social behaviour change communication and nutrition sensitive agriculture livelihoods and practices to enhance dietary diversity and address underlying gender norms. To improve financial access, women will also be offered access the revolving fund facility detailed in Component III of this proposal. The project will continuously monitor the impact of project interventions on women's time use and workloads and address any negative impacts. This will be done through constant consultation of women small holder farmers. In addition, household tensions arising from women's economic empowerment will be mitigated through awareness raising and social safeguards. The project will be supported by Gender Officer to be recruited by the project. A detailed gender analysis and gender action plan has been developed (Annex 3-3).

IV. LEGAL INSTRUMENTS AND AUTHORITY

A. Legal Instrument

62. The legal instrument is an additional financing grant agreement between the Republic of Ghana (the "Recipient") and the African Development Bank (*As Supervising Entity for the Global Agriculture and Food Security Program (GAFSP) Trust Fund*) (the "Bank") for an amount of USD 20 million (the "Grant Agreement").

B. Conditions Associated with Bank's Intervention

63. **Condition Precedent to Entry into Force of the Grant Agreement.** The Grant Agreement shall enter into force on the date of signature by the Recipient and the Bank.

64. **Conditions Precedent to First Disbursement of the Grant.** The obligation of the Bank to make the first disbursement of the Grant shall be conditional upon the entry into force of the Grant Agreement.

65. **Conditions Precedent to Disbursement for Works.** Subject to the *Condition Precedent to Entry into Force of the Grant Agreement* and Conditions Precedent to First Disbursement of the Grant, the obligation of the Bank to disburse the Grant for works that involve the use of an Environmental Social Management Framework (ESMF) shall be subject to the satisfaction of the following additional conditions by the Recipient:

- (i) Submission of the site-specific Environmental and Social Impact Assessment ("ESIA") and Environmental and Social Management Plan ("ESMP") for each works, prepared in accordance with the ESMF and the Bank's Safeguards Policies, in form and substance satisfactory to the Bank; and
- (ii) Submission of the evidence of approval of the site-specific ESIA and ESMP by the competent national authority of the Recipient.

66. **Undertakings.** The Recipient undertakes to:

- (i) carry out the Project in accordance with the ESMP, and the Bank's Safeguards Policies and the applicable national legislation in a manner and in substance satisfactory to the Bank;
- (ii) prepare and submit to the Bank Project Reports, including quarterly reports on the implementation of the site-specific ESMPs including any deficiencies identified and the corrective measures thereto;
- (iii) refrain from taking any action which would prevent or interfere with the

- implementation of the site-specific ESMPs, including any amendment, suspension, waiver, and/or avoidance of any provision thereof, whether in whole or in part, without the prior written concurrence of the Bank;
- (iv) maintain at all times during implementation of the Project the existing Project Coordination and Management Unit with mandate, staffing and resources satisfactory to the Bank; and
67. maintain at all times during implementation of the Project, the existing National Project Steering Committee established responsible to provide inter alia Project strategic direction and oversight for the Program implementation.

African Development Bank Group Independent Recourse Mechanism

68. Communities and individuals who believe that they are adversely affected by an African Development Bank Group (AfDB) supported project may submit complaints to existing project-level grievance redress mechanisms or the AfDB's Independent Recourse Mechanism (IRM). The IRM ensures project affected communities and individuals may submit their complaint to the AfDB's Independent Recourse Mechanism which determines whether harm occurred, or could occur, as a result of AfDB non-compliance with its policies and procedures. To submit a complaint or request further information please contact: or visit the IRM website. Complaints may be submitted at any time after concerns have been brought directly to the AfDB's attention, and Bank Management has been given an opportunity to respond before reaching out to the IRM.

V. RECOMMENDATION

69. Management recommends that the Board of Directors approve the proposed GAFSP grant of USD 20.00 million to the Republic of Ghana for the purposes and subject to the conditions stipulated in this report.

VI. RESULTS FRAMEWORK

REVISED PROJECT RESULTS FRAMEWORK						
A PROJECT INFORMATION						
PROJECT NAME AND SAP CODE: Building Resilience for Food and Nutrition Security in the Northern Savannah Ecological Zone – Additional Financing to Savannah Investment Programme- P-GH-A00-017				COUNTRY/REGION: REPUBLIC OF GHANA/ WEST AFRICA		
PROJECT DEVELOPMENT OBJECTIVE: To increase climate-smart local food production, enhance food and nutrition security for women, youth and vulnerable groups.						
ALIGNMENT INDICATOR (S): Level 1: Reduction in prevalence of stunting among children under 5, Increased crop yield/Productivity: Level 2: Agricultural Inputs provided (fert. And seed); Land with improved water management/Micro-scale irrigation (Bank’s priority/sector strategy: High 5 Priorities of “Feed Africa” & “to improve the quality of life for the people of Africa”)						
B RESULTS MATRIX						
RESULTS CHAIN AND INDICATOR DESCRIPTION	RMF/ADOA INDICATOR	UNIT OF MEASUREMENT	BASELINE (as of 2022)	TARGET AT COMPLETION (2026)	Means of verification	Frequency of Reporting
IMPACT: WELL BEING OF CHILDREN AND WOMEN IMPROVED						
Impact indicator 1: Change in prevalence of stunting in Children under five years: <input type="checkbox"/> rate of stunting in children reduced	<input type="checkbox"/>	Percentage	18%	15%	Ghana Demographic Health Survey (GDHS) of Ghana Statistical Service	Periodic (every 5 years/Annually)
Impact indicator 2: Proportion of women with improved diet (Minimum dietary diversity for women)	<input type="checkbox"/>	Percentage	50%	60%	Ghana Demographic Health Survey (GDHS) of Ghana Statistical Service	Periodic (every 5 years/Annually)
OUTCOME STATEMENT 1: INCREASED INCOME OF BENEFICIARIES AND JOBS CREATED						
Outcome Indicator 1.a: Percentage of beneficiary households reporting an increase in income as a result of project interventions	<input type="checkbox"/>	Percentage	30%	40%	Project Annual Progress Reports, Household income surveys and periodic reports	Periodic/Annually

Outcome Indicator 1.b: Direct employment provided (Disaggregated by type, gender and age)	<input type="checkbox"/>	<i>Number</i>	5000	10000	Ministry Annual Progress Reports, Household income surveys and periodic reports	Quarterly & Annually
OUTCOME STATEMENT 2: IMPROVED PRODUCTIVITY OF FOCUSED CROPS						
Indicator 2.a: Yield levels for grains, legumes and vegetables of focus	<input type="checkbox"/>	Mt/ha	Maize: 5.0 Soybean: 2.0 Cowpea: 1.55 Grdnut: 1.8 Rice: 5.0	Maize -6.0 Soybean-2.5 Cowpea-1.9 Grdnut-2.0 Rice-6.0	Project Annual Progress Reports, Yield Surveys	Annually
OUTCOME STATEMENT 3: ENHANCED FOOD SECURITY AND NUTRITION						
Indicator 3a: Quantity of cereals and legumes produced under climate smart agriculture	<input type="checkbox"/>	Mt	Maize-70,000 Rice-60,000 Soybean-12,000 Groundnut-NA Cowpea-NA	Maize – 155,000 Rice – 90,000 Soybean – 30,000 Groundnut – 10,000 Cowpea – 3,500	Project Annual Progress Reports	Annually
Indicator 3b: Quantity of vegetables produced under climate smart agriculture	<input type="checkbox"/>	Mt	0	Tomato – 1,500 Onion –1,000 Pepper – 1,500 Cabbage – 900	Project Annual Progress Reports	Annually

				Amaranthus – 45 Lettuce-250 Jute-100 Cucumber- 500 Okro-450 Carrot-500		
OUTPUT INDICATORS						
Component I: Climate-resilient Agricultural Production for Women and Youth						
Output Statement 1.1: Increased Production and Productivity						
Output Indicator 1.1.1: Number of people receiving direct benefits (person) <i>Disaggregation: Of which, the number of females</i>	<input type="checkbox"/>	Number	137,521	271,110	Project Annual Progress Reports	96,250
Output Indicator 1.1.2: Number of smallholder producers/processors receiving productivity enhancement support (person) <i>Disaggregation: Of which, female producers/processors</i>	<input type="checkbox"/>	Number	61 750 Women 27,5%	96,250 Women - 60%	Project Annual Progress Reports	96,250
Output Indicator 1.1.3.: Quantity of additional improved, early maturing and drought-tolerant seeds distributed to farmers to cultivate maize, rice, soybean, cowpea, groundnuts	<input checked="" type="checkbox"/>	Mt	Maize- 1,595 Rice-600 Soybean- 600 Cowpea- NA Groundnut- NA	Maize-1,895 Rice - 1,350 Soyabean - 325 Cowpea - 50 Groundnut – 50	Project Annual Progress Reports	Annually

Output Indicator 1.1.4.: Quantity of agro inputs (fertilizer & weedicides) distributed to farmers	<input checked="" type="checkbox"/>	Mt/Liters	Fert-20,900 Weedicide-72,000	Fertilizer-25,900 Weedicide-100,384	Project Annual Progress Reports	Annually
Output Indicator 1.1.5.: Land area where climate resilient or sustainable agriculture practices are implemented (hectare) (disaggregated by crops)	<input type="checkbox"/>	Hectares	20,000	30,800 Maize – 13,000 Soybean – 4,400 Rice – 9,000 Groundnut – 3,400 Cowpea – 1,000	Project Annual Progress Reports	Annually
Output Indicator 1.1.6.: Number of schools supported in school gardening to cultivate vegetables to improve diets of school children	<input type="checkbox"/>	Number	0	20	Project Annual Progress Reports	Annually
Output Statement 1.2: Improved Resilience with Solar Operated Small-Scale Irrigation Scheme and Climate Smart Inputs						
Output Indicator 1.2.1: Number of sites installed with solar operated micro-irrigation facilities for vegetable production (2 hectares per location)	<input type="checkbox"/>	Number	0	88	Project Annual Progress Reports	Quarterly & Annually
Output Indicator 1.2.2: Quantity of drought and disease resistant climate smart vegetable seeds (Amaranthus, Jute, okra, chili pepper, carrot, cucumber, lettuce and cabbage) distributed to small holder farmers for production	<input type="checkbox"/>	Mt	0	4,410	Project Annual Progress Reports	Annually
Output Indicator 1.2.3: Number of farmers cultivating all year-round vegetables under solar operated micro-irrigation disaggregated by gender	<input type="checkbox"/>	Number	0	9000	Project Annual Progress Reports	Annually

Output Indicator 1.2.4: Land area receiving improved production support (hectare)	<input type="checkbox"/>	Ha	0	176	Project Quaterly and Annual Progress Reports	Quarterly & Annually
Disaggregated by area provided with new/improved irrigation or drainage services (hectare)						
Component II: Women and youth participation in poultry production						
Output Statement 2: Improved Nutrition and women empowerment						
Output Indicator 2.1.1: Women and youth trained and mentored in commercial layer production	<input type="checkbox"/>	Number	1,000	1,500	Project Quaterly and Annual Progress Reports	Quarterly & Annually
Output Indicator 2.1.2: Female-headed households supported with layer birds	<input type="checkbox"/>	Number	1,000	1,500	Project Quaterly and Annual Progress Reports	Quarterly & Annually
Output Indicator 2.1.3: Number of poultry species (guinea keets & cockerels) distributed to households disaggregated by gender.	<input type="checkbox"/>	Number	Guinea fowl-100,000 Cockerel-30,000	Guinea keets-125,000 Cockerel – 40,000	Project Quaterly and Annual Progress Reports	
Output Indicator 2.1.4: Number of birds vaccinated against Newcastle disease	<input type="checkbox"/>	360,000	445,000	Project Quaterly and Annual Progress Reports	Quarterly & Annually	
Output Indicator 2.1.5: Quantity of feed procured (starter and grower mash) and distributed to households	<input type="checkbox"/>	Mt	0	Feed-1058 Vitamins-0.72	Project Quaterly and Annual Progress Reports	
Output Indicator 2.1.6: Number of 120-bird capacity Battery Cages procured and distributed to household	<input type="checkbox"/>	Number	1,000	1,500	Project Quaterly and Annual Progress Reports	
Output Indicator 2.1.7: Number of primary schools including vegetables from gardens to be established through project	<input type="checkbox"/>	Number	0	20	Project Quaterly and Annual Progress Reports	Quarterly & Annually

Output Indicator 2.1.8 People receiving improved nutrition services and products (person)	<input type="checkbox"/>	Number	1,000	4,000	Project Quaterly and Annual Progress Reports	Quaterly & Annually
Output Statement 2.2: Access to market improved						
Output Indicator 2.2.1: Farmers supported in accessing improved marketing opportunities (farmers)	<input type="checkbox"/>	Number	150	240	Project Quaterly and Annual Progress Reports	Quaterly & Annually
Output Indicator 2.2.2: Quantity of grain sold through markets facilitated by the Project	<input type="checkbox"/>	Mt	350,000	542,900 Maize – 83,400 Rice-86,200 Soyabean – 23,300	Project Quaterly and Annual Progress Reports	Quaterly & Annually
Output Statement 2.3: Capacity of beneficiaries enhanced in their operations						
Output Indicator 2.3.1: Number of Farmers receiving inputs or services on climate resilient or sustainable agriculture practices (farmer) disaggregated by gender and number of farmers adopting technologies or practices received		Number ○ Number of female farmers number of farmers adopting technologies or practices received	10,000	70,000	Project Quaterly and Annual Progress Reports	Quaterly & Annually
Output Indicator 2.3.2: Number of households trained in poultry husbandry and health practices		Number	1,000	1,500	Project Quaterly and Annual Progress Reports	
Output Indicator 2.3.3: Persons receiving capacity development support (Disaggregation: of which, number of females)		Persons	1,000	4,000	Project Quaterly and Annual Progress Reports	Quaterly & Annually

Component III: Sustainable Value Chain Development						
Output Statement 3.1: Sustainable value chain and SME developed						
Output Indicator 3.1.1 Agribusiness companies/enterprises/POs adopting climate-resilient or sustainable agriculture interventions in their operations (organization)	<input type="checkbox"/>	Number	21	110	Project Quaterly and Annual Progress Reports	Quaterly & Annually
Output Indicator 3.1.2: Number of groups registered under VSLA to access credit/loans through the revolving fund to be established.	<input type="checkbox"/>	Number	0	480	Project Quaterly and Annual Progress Reports	Quaterly & Annually
Component IV: Project Management & Institutional Support						
Output Statement 4.1: Coordination and knowledge management improved						
Output Indicator 4.1.1: Develop and print SBCC materials (flyers, brochures, booklets)	<input type="checkbox"/>	Number	0	13,000	Project Quaterly and Annual Progress Reports	Quaterly & Annually
Output Indicator 4.1.2: Annually conduct studies on nutrition, food security and market information	<input type="checkbox"/>	Number	0	3	Project Quaterly and Annual Progress Reports	Quaterly & Annually

User notes

- Alignment indicators are used to (i) demonstrate project outcomes are aligned with broader objectives; and (ii) ensure consistency at aggregate level. Here operations staff have to select an appropriate RMF (or exceptionally ADOA) indicator (level 1). Project success is not judged against these indicators. Targets and baselines for these indicators are not included in the results framework since they are not used to assess performance of the individual project. However, they should be included in the monitoring plan. If operations staff cannot select a suitable [RMF indicator \(VPN required\)](#) to use as alignment indicator, this may mean that the operation is not a priority for the Bank. In such a case, other indicators from recognized international databases may be used. Operations staff should further justify why this proposed project is a priority for the Bank in the PCN/PAC narrative.
- Horizontal outcome and output lines include outcome/output statements, these are achieved states. SMART indicators are required to measure achievement in the cell below output/output statement.

3. Performance indicators should be identified for every result at each results level included in the results framework. There may be more than one indicator per outcome/output statement. A general rule of thumb is to select no more than three performance indicators per result statement. Indicators should be sex-disaggregated where possible.
4. If the indicator selected is classified as part of the Bank's RMF, the box "RMF indicator" should be ticked. In addition, for NSO, teams can use the Development Outcomes Reporting Template organized per type of instrument and available on [NSO Portal](#). Other indicators may be also consulted such as HPSO. For Results-Based Financing, operations teams can add a column to flag indicators for disbursement.
5. Without exception, all output and outcome indicators require a baseline and a target. For each baseline and target data, an indication of the date, aligned with project timeline, should be specified. For unit of measurement it is recommended to use numbers (as opposed to percentages) where possible.
6. The effectiveness of operations is assessed against output and outcome indicators, they should be identified and targets set accordingly. Intermediate outcomes are useful where they allow results to be established within the timeframe of project completion reporting. Longer term outcomes are also important but may not be verifiable at the time of completion reporting. Teams should identify an appropriate combination.
7. Where possible, it is recommended to include the budget allocation for monitoring under the project budget.

CHANGES TO THE PROJECT RESULTS FRAMEWORK		
Revisions to the results framework		Comments/Rationale for change
PROJECT DEVELOPMENT OBJECTIVE: increase climate-smart local food production, enhance food and nutrition security for women, youth and vulnerable groups.		
<i>Current (PDO)</i>	<i>Proposed change</i>	
To increase climate-smart local food production, enhance food and nutrition security for women, youth and vulnerable groups.	<input checked="" type="checkbox"/> No Change	
OUTCOME STATEMENTS AND INDICATORS		
<i>Current</i>	<i>Proposed change</i>	
OUTCOME STATEMENT 1.1: Percentage of beneficiary households reporting an increase in income as a result of services provided by the Project	<input checked="" type="checkbox"/> No Change	
OUTCOME STATEMENT 1.2: Improved crop yield (Mt/ha)	<input checked="" type="checkbox"/> No Change	
OUTCOME STATEMENT 1.3: Quantity of food produced	<input checked="" type="checkbox"/> No Change	
OUTPUT STATEMENT AND INDICATORS		
<i>Current</i>	<i>Proposed change</i>	
OUTPUT STATEMENT 1.1: Increased Production and Productivity	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 1.1.1: Number of people receiving direct benefits (person)	<input checked="" type="checkbox"/> Revised Name changed	Adjusted to GAFSP Output indicator #1

<i>Disaggregation: Of which, the number of females</i>		
OUTPUT INDICATOR 1.1.2: Number of smallholder producers/processors receiving productivity enhancement support (person) <i>Disaggregation: Of which, female producers/processors)</i>	<input checked="" type="checkbox"/> Revised Name changed	Adjusted to GAFSP Output indicator #3
OUTPUT INDICATOR 1.1.3: Quantity of improved, early maturing and drought-tolerant seeds distributed to farmers to cultivate maize, rice, soybean, cowpea, groundnuts	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 1.1.4: Quantity of agro inputs (fertilizer & weedicides) distributed to farmers	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 1.1.5: Land area cultivated under climate smart technologies (disaggregated by commodity)	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 1.1.6: Number of schools supported in school gardening to cultivate vegetables to improve diets of school children	<input checked="" type="checkbox"/> New	Compliance with GAFSP indicators
I OUTPUT STATEMENT 1.2: Improved resilience with solar operated small scale irrigation scheme and climate smart inputs	<input checked="" type="checkbox"/> New	Address issues of climate change through promotion of climate smart agriculture
OUTPUT INDICATOR 1.2.1: Number of sites installed with solar operated micro-irrigation facilities for vegetable production (2 hectares per location)	<input checked="" type="checkbox"/> New	Address issues of climate change through promotion of climate smart agriculture
OUTPUT INDICATOR 1.2.2: Quantity of drought and disease resistant & climate smart	<input checked="" type="checkbox"/> New	

seed distributed to small holder farmers for vegetable production		
OUTPUT INDICATOR 1.2.3: Number of farmers cultivating all year-round vegetables under solar operated micro-irrigation disaggregated by gender	<input checked="" type="checkbox"/> New	
OUTPUT INDICATOR 1.2.4: Land area receiving improved production support (hectare) Disaggregated by area provided with new/improved irrigation or drainage services (hectare)	<input checked="" type="checkbox"/> New 176 ha will be cultivated using solar irrigation for vegetable	Adjusted to GAFSP output indicator #2
I OUTPUT STATEMENT 2.1: Improved nutrition and women empowerment	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.1.1: Women and youth trained and mentored in commercial layer production	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.1.2: Female-headed households supported with layer birds	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.1.3: Number of households including vegetable, eggs and chicken in household diets	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.1.4: Number of birds vaccinated against Newcastle disease	<input checked="" type="checkbox"/> Revised	
OUTPUT INDICATOR 2.1.5: Quantity of feed procured (starter and grower mash) and distributed to household	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.1.6: Number of 120-bird capacity Battery Cages procured and distributed to household	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.1.7:	<input checked="" type="checkbox"/> New	Compliance with GAFSP indicators

Number of primary schools including vegetables from gardens to be established through Project		
Output Indicator 2.1.8 People receiving improved nutrition services and products (person)	<input checked="" type="checkbox"/> New	Compliance with GAFSP Output Indicator #12
I OUTPUT STATEMENT 2.2: Access to market improved	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.2.1: Farmers supported in accessing improved marketing opportunities (farmers)	<input checked="" type="checkbox"/> Revised Name changed. Changed to number of farmers instead of groups	Adjusted to GAFSP Output Indicator #6
OUTPUT INDICATOR 2.2.2: Quantity of grain sold through markets facilitated by the Project	<input checked="" type="checkbox"/> No Change	
I OUTPUT STATEMENT 2.3: Capacity of beneficiaries enhanced in their operations	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.3.1: Number of Farmers receiving inputs or services on climate resilient or sustainable agriculture practices (farmer) <i>Disaggregation: Of which, female farmers</i> <i>Disaggregation: Of which, number of farmers adopting technologies or practices received</i>	<input checked="" type="checkbox"/> Revised Name changed	Adjusted to Output Indicator #13
OUTPUT INDICATOR 2.3.2: Number of households trained in poultry husbandry and health practices	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 2.3.3: Number of households sensitized on consumption of nutritious foods and adoption of healthy practices through Social and Behavior Change Communication	<input checked="" type="checkbox"/> No Change	
I OUTPUT STATEMENT 3.1:	<input checked="" type="checkbox"/> No Change	

Sustainable Value chains and SME developed		
OUTPUT INDICATOR 3.1.1: Agribusiness companies/enterprises/POs adopting climate-resilient or sustainable agriculture interventions in their operations (organization)	<input checked="" type="checkbox"/> Revised	Adjusted with GAFSP Output indicator #15
OUTPUT INDICATOR 3.1.2: Number of groups registered under VSLA to access credit/loans through the revolving fund to be established	<input checked="" type="checkbox"/> Revised Increase the number of beneficiaries	Compliance with GAFSP indicators
I OUTPUT STATEMENT 4.1: Coordination and knowledge management improved	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 4.1.1: Number of progress reports prepared	<input checked="" type="checkbox"/> No Change	
OUTPUT INDICATOR 4.1.2: Audit of accounts annually	<input checked="" type="checkbox"/> No Change	

VII. ENVIRONMENTAL AND SOCIAL COMPLIANCE NOTE (ESCON)

A. Basic Information ⁹	
Project Title: Additional Financing to Savannah Investment Program (SIP): Building Resilience for Food and Nutrition Security in the Northern Savannah Ecological Zone	
Project "SAP code": P-GH-A00-017	
Country : Ghana	Lending Instrument: DI <input checked="" type="checkbox"/> FI <input type="checkbox"/> CL <input type="checkbox"/> BS <input type="checkbox"/> GU <input type="checkbox"/> RPA <input type="checkbox"/> EF <input type="checkbox"/> RBF <input type="checkbox"/>
Project Sector: Agriculture	Task Team Leader: Philip BOAHEN
Appraisal date: June 19-30, 2023	Estimated Approval Date: 20/11//2023
Environmental Safeguards Officer: Sekou Abou KAMARA / Franklin GAVU	
Social Safeguards Officer: XXX	
Environmental and Social Category: 2	Date of categorization: 09/08/2023
Operation type: SO <input checked="" type="checkbox"/> NSO <input type="checkbox"/> PBO <input type="checkbox"/>	
Is this project processed under rapid responses to crises and emergencies?	
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is this project processed under a waiver to the Integrated Safeguards System?	
Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
B. Disclosure and Compliance Monitoring	
B.1 Mandatory disclosure	
Environmental Assessment/Audit/System/Others (specify: N/A)	
Was/Were the document (s) disclosed <i>prior to appraisal</i> ?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Date of "in-country" disclosure by the borrower/client	[Date]
Date of receipt, by the Bank, of the authorization to disclose	[Date]
Date of disclosure by the Bank	[Date]
Resettlement Action Plan/Framework/Others (specify: N/A)	
Was/Were the document (s) disclosed <i>prior to appraisal</i> ?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Date of "in-country" disclosure by the borrower/client	[Date]
Date of receipt, by the Bank, of the authorization to disclose	[Date]
Date of disclosure by the Bank	[Date]
Vulnerable Peoples Plan/Framework/Others (specify: NA.)	
Was the document disclosed <i>prior to appraisal</i> ?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Date of "in-country" disclosure by the borrower/client	[Date]
Date of receipt, by the Bank, of the authorization to disclose	[Date]
Date of disclosure by the Bank	[Date]
If in-country disclosure of any of the above documents is not expected, as per the country's legislation, please explain why: NA.	
B.2. Compliance monitoring indicators	
Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Have costs related to environmental and social measures, including for the running of the grievance redress mechanism, been included in the project cost?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Is the total amount for the full implementation of the Resettlement of affected people, as integrated into the project costs, effectively mobilized and secured?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
Have satisfactory implementation arrangements been agreed upon with the borrower and has the same been adequately reflected in the project legal documents?	Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/>
A. Clearance	
Is the project compliant with the Bank's environmental and social safeguards requirements, and to be submitted to the Board?	
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

⁹Note: This ESCON shall be appended to project appraisal reports/documents before Senior Management and/or Board approvals.

VIII. ADDITIONAL FINANCING CHECKLIST

This checklist demonstrates alignment of the additional financing project with the requirements of the additional financing policy and guidelines, by reason for AF. Delete the sections relating to reasons for AF that are not pertinent to your project.

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
<p>i. Satisfactory performance of the Project: Scoring of 3 or better on the development objective (DO); (Satisfactory); Scoring of 3 or better on implementation progress (IP); (Satisfactory) ; The outputs/effects and results recorded in the last IPR of the project show that its impact so far has been in line with the expectations set out in the PAR; Key provisions of the loan/grant are largely complied with, including audit, financial management and reporting requirements on environmental and social safeguards; For projects facing fiduciary or environmental and social safeguarding difficulties, or other problems recorded in the IPR, these should have been resolved, or a feasible action plan developed, prior to the assessment of the Additional Financing; For projects that have experienced implementation difficulties in the past, these should have been resolved and the project should have performed well for at least 6 months prior to the submission of the AF request.</p>	Yes	Refer to Annex 5-9: Summary of last supervision mission to SIP of the Technical Annexes
<p>ii. Providing Additional Financing is a better option than starting a new project</p>	Yes	Refer to Paragraph 12 of main PAR
<p>iii. The project is generally aligned with the Bank Group's relevant strategies, priorities and policies and country, regional and sectoral priorities, and the overall environment is conducive to its success¹⁰¹¹</p>	Yes	<p>Refer to</p> <ul style="list-style-type: none"> • Annex 1-1 Project Classification in the technical annex • Project Classification under Project Information Sheet in the main PAR
<p>iv. The project is broadly in line with the development objectives of the initial project¹²</p>	Yes	Refer to Project Information Sheet
<p>v. The project is technically feasible overall</p>	Yes	<p>Refer to:</p> <ul style="list-style-type: none"> • Project Feasibility: Paragraph 40-46 • Annex 3-1: Economic and Financial Analysis

¹⁰ Original project and Additional Financing project.

¹¹ "Region" means any formal grouping of RMCs whose mandate is consistent with that of the Bank Group (Regional Economic Communities, River Basin Organizations, etc.).

¹² Project objectives can be the initial objectives of the project (such as additional financing for cost overruns, funding shortfalls, or project modifications) or revised objectives (as part of a project modification or extension).

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
vi. The project is economically and financially viable overall	Yes	Refer to: <ul style="list-style-type: none"> • Project Feasibility: Paragraph 40-46 • Annex 3-1: Economic and Financial Analysis
vii. The institutional, fiduciary, environmental and social arrangements for the project as a whole are satisfactory	Yes	Refer to: <ul style="list-style-type: none"> • Paragraph 12 of main PAR
viii. Associated risk mitigation measures are satisfactory for the project as a whole ¹³	Yes	Refer to <ul style="list-style-type: none"> • Paragraph 27: Procurement Risks and Capacity Assessment • Paragraph 33: Risk Management presented in Table 6 • Technical Annex 3-5 on Climate Change and mitigation measures • Annex 4-2 Risk Matrix
ix. The assessment of the quality at entry (QaE) of the project and the assessment of its overall credit risk are considered satisfactory for sovereign operations financed from AfDB resources in ADF-only countries	Yes	
x. The financing gap is due to shortfalls in financial contributions from the Bank Group or in counterpart funding (inability of the RMC to harness the counterpart funding) that were anticipated at appraisal but did not materialize. The reasons are beyond the control of the borrower/beneficiary; these reasons were difficult to predict when the project was prepared, and the borrower/beneficiary provides justification; the borrower/beneficiary is not able to make the AF available; nor has it been able to find other financiers and provides justification for the request for additional financing from the Bank Group.	No	
xi. the size of the project cannot be reduced without compromising its ability to achieve its development objectives and sustainability.	NA	

¹³ Subject to the approval of the Credit Risk Committee with respect to exposure limits and the availability of resources.

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
xii. Is the AF less than 20% of the cost of the initial project (net of taxes and duties)	No	
xiii. Is the AF in line with the Policy on Expenditures Eligible for Bank Group Financing?	Yes	Refer to: <ul style="list-style-type: none"> Annex 4-6: Detailed Financial Management and Disbursement Arrangements
xiv. Could the borrower/beneficiary or the entity implementing the project have taken earlier steps to address the financing gap?	N/A	
xv. Are there any implementation delays in completing the activities under the project if AF is provided?	No	
xvi. Is the Borrower/Recipient committed/able to quickly process the AF to enable smooth and successful completion of the activities it would support?	Yes	
Eligibility Criteria for AF Due to Cost Overrun	Compliance (Yes / No)	Justification/reference to relevant paragraphs
i. Satisfactory performance of the Project: Scoring of 3 or better on the development objective (DO); (Satisfactory); Scoring of 3 or better on implementation progress (IP); (Satisfactory) ; The outputs/effects and results recorded in the last IPR of the project show that its impact so far has been in line with the expectations set out in the PAR; Key provisions of the loan/grant are largely complied with, including audit, financial management and reporting requirements on environmental and social safeguards; For projects facing fiduciary or environmental and social safeguarding difficulties, or other problems recorded in the IPR, these should have been resolved, or a feasible action plan developed, prior to the assessment of the additional financing; For projects that have experienced implementation difficulties in the past, these should have been resolved and the project should have performed well for at least 6 months prior to the submission of the AF request.	N/A	
ii. Providing additional financing is a better option than starting a new project	N/A	

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
iii. The project is generally aligned with the Bank Group's relevant strategies, priorities and policies and country, regional and sectoral priorities, and the overall environment is conducive to its success ¹⁴¹⁵	N/A	
iv. The project is broadly in line with the development objectives of the initial project ¹⁶	N/A	
v. The project is technically feasible overall	N/A	
vi. The project is economically and financially viable overall	N/A	
vii. The institutional, fiduciary, environmental and social arrangements for the project as a whole are satisfactory	N/A	
viii. Associated risk mitigation measures are satisfactory for the project as a whole ¹⁷	N/A	
ix. The assessment of the quality at entry (QaE) of the project and the assessment of its overall credit risk are considered satisfactory for sovereign operations financed from AfDB resources in ADF-only countries	N/A	
x. The reasons for cost overruns are beyond the control of the borrower/beneficiary; these reasons were difficult to predict when the project was prepared, and the borrower/beneficiary provides justification; the borrower/beneficiary is not able to make the AF available; nor has it been able to find other financiers and provides justification for the request for additional financing from the Bank Group.	N/A	
xi. The size of the project cannot be reduced without compromising its ability to achieve its development objectives and sustainability.	N/A	

¹⁴ Original project and Additional Financing project.

¹⁵ "Region" means any formal grouping of RMCs whose mandate is consistent with that of the Bank Group (Regional Economic Communities, River Basin Organizations, etc.).

¹⁶ Project objectives can be the initial objectives of the project (such as additional financing for cost overruns, funding shortfalls, or project modifications) or revised objectives (as part of a project modification or extension).

¹⁷ Subject to the approval of the Credit Risk Committee with respect to exposure limits and the availability of resources.

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
xii. The AF is less than 30% of the cost of the initial project (net of taxes and duties)	N/A	
xiii. Could the borrower/beneficiary or the entity implementing the project have taken earlier steps to address the cost overruns?	N/A	
xiv. Were the conclusions of the supervision engineering consultant's reports taken into account in the analysis?	N/A	
xv. Has sufficient time and budget been allocated to pre-construction activities, including the preparation and detailed review of technical plans, e.g. updating plans to take into account updated cost information, a more accurate projection of the trend in the evolution of input costs of civil works, and an in-depth technical study to guarantee the quality of the engineering plans? Have adequate financial arrangements been made for compensation and the implementation of mitigation measures for the start of pre-construction?	N/A	
xvi. Were the engineer's estimates updated to the market value at the time of the evaluation and were sufficient provisions included for hazards related to delays in procurement?	N/A	
xvii. Have the time between project preparation and implementation been minimized to reduce the likelihood of cost overruns due to higher than expected bid prices?	N/A	
Eligibility Criteria for AF Due to Project Scaling up	Compliance (Yes / No)	Justification/reference to relevant paragraphs
i. Satisfactory performance of the Project: Scoring of 3 or better on the development objective (DO); (Satisfactory); Scoring of 3 or better on implementation progress (IP); (Satisfactory) ; The outputs/effects and results recorded in the last IPR of the project show that its impact so far has been in line with the expectations set out in the PAR; Key provisions of the loan/grant are largely complied with, including audit, financial management and reporting requirements on environmental and social	Yes	Refer to Annex 5-9: Summary of last supervision mission to SIP of the Technical Annexes

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
safeguards; For projects facing fiduciary or environmental and social safeguarding difficulties, or other problems recorded in the IPR, these should have been resolved, or a feasible action plan developed, prior to the assessment of the Additional Financing; For projects that have experienced implementation difficulties in the past, these should have been resolved and the project should have performed well for at least 6 months prior to the submission of the AF request.		
ii. Is additional financing for the added or expanded activities the best mechanism to maximize the development impact and results in the relevant area or sector, compared to other lending tools such as a repeater project, a completely new operation, or non-lending instruments? i.e., is providing additional financing a better option than starting a new project?	Yes	Refer to Paragraph 12 of main PAR
iii. Is the selection of beneficiaries of the scaled-up activities based on objective criteria (as opposed to politically motivated reasons)?	Yes	
iv. The project is generally aligned with the Bank Group's relevant strategies, priorities and policies and country, regional and sectoral priorities, and the overall environment is conducive to its success ¹⁸¹⁹	Yes	Refer to <ul style="list-style-type: none"> • Annex 1-1 Project Classification in the technical annex • Project Classification under Project Information Sheet in the main PAR
v. The project is broadly in line with the development objectives of the initial project ²⁰	Yes	Refer to Project Information Sheet
vi. The project is technically feasible overall	Yes	Refer to: <ul style="list-style-type: none"> • Project Feasibility: Paragraph 40-46 • Annex 3-1: Economic and Financial Analysis
vii. The project is economically and financially viable overall	Yes	Refer to: <ul style="list-style-type: none"> • Project Feasibility: Paragraph 40-46

¹⁸ Original project and Additional Financing project.

¹⁹ "Region" means any formal grouping of RMCs whose mandate is consistent with that of the Bank Group (Regional Economic Communities, River Basin Organizations, etc.).

²⁰ Project objectives can be the initial objectives of the project (such as additional financing for cost overruns, funding shortfalls, or project modifications) or revised objectives (as part of a project modification or extension).

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
		<ul style="list-style-type: none"> • Annex 3-1: Economic and Financial Analysis
viii. The institutional, fiduciary, environmental and social arrangements for the project as a whole are satisfactory	Yes	Refer to: <ul style="list-style-type: none"> • Paragraph 12 of main PAR
ix. Associated risk mitigation measures are satisfactory for the project as a whole ²¹	Yes	Refer to <ul style="list-style-type: none"> • Paragraph 27: Procurement Risks and Capacity Assessment • Paragraph 33: Risk Management presented in Table 6 • Technical Annex 3-5 on Climate Change and mitigation measures • Annex 4-2 Risk Matrix
x. The assessment of the quality at entry (QaE) of the project and the assessment of its overall credit risk are considered satisfactory for sovereign operations financed from AfDB resources in ADF-only countries	Yes	
xi. Is the Borrower/Recipient committed to scaling up the project activities? Would preparing an additional loan/grant bring procedural or other cost-effectiveness gains for the Borrower/Recipient, as compared to preparing a repeater or other new project? Can the magnitude or scope of the scale-up project be easily accommodated in the context of the ongoing project, relying on the Borrower/Recipient's existing implementation capacity and other project arrangements?	Yes	
xii. Was the project scale-up anticipated at original project PAR? has the borrower/beneficiary provided justification; is the borrower/beneficiary able to make the AF available? has it been able to find other financiers and has it provided justification for the request for additional financing from the Bank Group?	No	
xiii. Is the AF in line with the Policy on Expenditures Eligible for Bank Group Financing?	Yes	

²¹ Subject to the approval of the Credit Risk Committee with respect to exposure limits and the availability of resources.

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
xiv. Are there any implementation delays in completing the activities under the project if AF is provided?	No	
xv. Is the Borrower/Recipient committed/able to quickly process the AF to enable smooth and successful completion of the activities it would support?	Yes	
Eligibility Criteria for AF Due to Project Modification	Compliance (Yes / No)	Justification/reference to relevant paragraphs
i. Satisfactory performance of the Project: Scoring of 3 or better on the development objective (DO); (Satisfactory); Scoring of 3 or better on implementation progress (IP); (Satisfactory) ; The outputs/effects and results recorded in the last IPR of the project show that its impact so far has been in line with the expectations set out in the PAR; Key provisions of the loan/grant are largely complied with, including audit, financial management and reporting requirements on environmental and social safeguards; For projects facing fiduciary or environmental and social safeguarding difficulties, or other problems recorded in the IPR, these should have been resolved, or a feasible action plan developed, prior to the assessment of the additional financing; For projects that have experienced implementation difficulties in the past, these should have been resolved and the project should have performed well for at least 6 months prior to the submission of the AF request.	N/A	
ii. Providing additional financing is a better option than starting a new project	N/A	
iii. The project is generally aligned with the Bank Group's relevant strategies, priorities and policies and country, regional and sectoral priorities, and the overall environment is conducive to its success ²²²³	N/A	

²² Original project and Additional Financing project.

²³ "Region" means any formal grouping of RMCs whose mandate is consistent with that of the Bank Group (Regional Economic Communities, River Basin Organizations, etc.).

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
iv. The project is broadly in line with the development objectives of the initial project ²⁴	N/A	
v. The project is technically feasible overall	N/A	
vi. The project is economically and financially viable overall	N/A	
vii. The institutional, fiduciary, environmental and social arrangements for the project as a whole are satisfactory	N/A	
viii. Associated risk mitigation measures are satisfactory for the project as a whole ²⁵	N/A	
ix. The assessment of the quality at entry (QaE) of the project and the assessment of its overall credit risk are considered satisfactory for sovereign operations financed from AfDB resources in ADF-only countries	N/A	
x. Are there any issues of Contractor moral hazard whereby contractors inflate costs through unnecessary redesign or other means to take advantage of AF?	N/A	
xi. The project modifications could not be anticipated at original project PAR and the reasons are beyond the control of the borrower/beneficiary; the borrower/beneficiary provides justification; the borrower/beneficiary is not able to make the AF available; nor has it been able to find other financiers and provides justification for the request for additional financing from the Bank Group.	N/A	
xii. the size of the project cannot be reduced without compromising its ability to achieve its development objectives and sustainability.	N/A	

²⁴ Project objectives can be the initial objectives of the project (such as additional financing for cost overruns, funding shortfalls, or project modifications) or revised objectives (as part of a project modification or extension).

²⁵ Subject to the approval of the Credit Risk Committee with respect to exposure limits and the availability of resources.

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
xiii. Is the AF less than 20% of the cost of the initial project (net of taxes and duties)	N/A	
xiv. Is the AF in line with the Policy on Expenditures Eligible for Bank Group Financing?	N/A	
xv. Could the borrower/beneficiary or the entity implementing the project have taken earlier steps to address the project modification?	N/A	
xvi. Are there any implementation delays in completing the activities under the project if AF is provided?	N/A	
xvii. Is the Borrower/Recipient committed/able to quickly process the AF to enable smooth and successful completion of the activities it would support?	N/A	
Eligibility Criteria for AF as Emergency Operation²⁶	Compliance (Yes / No)	Justification/reference to relevant paragraphs
i. Satisfactory performance of the Project: Scoring of 3 or better on the development objective (DO); (Satisfactory); Scoring of 3 or better on implementation progress (IP); (Satisfactory) ; The outputs/effects and results recorded in the last IPR of the project show that its impact so far has been in line with the expectations set out in the PAR; Key provisions of the loan/grant are largely complied with, including audit, financial management and reporting requirements on environmental and social safeguards; For projects facing fiduciary or environmental and social safeguarding difficulties, or other problems recorded in the IPR, these should have been resolved, or a feasible action plan developed, prior to the assessment of the Additional Financing; For projects that have experienced implementation difficulties in the past, these should have been resolved and the project should have performed well for at least 6 months prior to the submission of the AF request.	N/A	

²⁶ This does not include emergency operations financed out of the Special Relief fund. Please refer to the AF processing Guidelines for such operations

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
ii. Providing Additional Financing is a better option than starting a new project	N/A	
iii. The project is generally aligned with the Bank Group's relevant strategies, priorities and policies and country, regional and sectoral priorities, and the overall environment is conducive to its success ²⁷²⁸	N/A	
iv. The project is broadly in line with the development objectives of the initial project ²⁹	N/A	
v. The project is technically feasible overall	N/A	
vi. The project is economically and financially viable overall	N/A	
vii. The institutional, fiduciary, environmental and social arrangements for the project as a whole are satisfactory	N/A	
viii. Associated risk mitigation measures are satisfactory for the project as a whole ³⁰	N/A	
ix. The assessment of the quality at entry (QaE) of the project and the assessment of its overall credit risk are considered satisfactory for sovereign operations financed from AfDB resources in ADF-only countries	N/A	
x. The project modifications could not be anticipated at original project PAR and the reasons are beyond the control of the borrower/beneficiary; the borrower/beneficiary provides justification; the borrower/beneficiary is not able to make the AF available; nor has it been able to find other financiers and provides justification for the	N/A	

²⁷ Original project and Additional Financing project.

²⁸ "Region" means any formal grouping of RMCs whose mandate is consistent with that of the Bank Group (Regional Economic Communities, River Basin Organizations, etc.).

²⁹ Project objectives can be the initial objectives of the project (such as additional financing for cost overruns, funding shortfalls, or project modifications) or revised objectives (as part of a project modification or extension).

³⁰ Subject to the approval of the Credit Risk Committee with respect to exposure limits and the availability of resources.

Eligibility Criteria for AF Due to Financing Gap	Compliance (Yes / No)	Justification/reference to relevant paragraphs
request for additional financing from the Bank Group.		
xi. the size of the project cannot be reduced without compromising its ability to achieve its development objectives and sustainability.	N/A	
xii. Is the AF in line with the Policy on Expenditures Eligible for Bank Group Financing?	N/A	
xiii. Could the borrower/beneficiary or the entity implementing the project have taken earlier steps to address the project modification?	N/A	
xiv. Are there any implementation delays in completing the activities under the project if AF is provided?	N/A	
xv. Is the Borrower/Recipient committed/able to quickly process the AF to enable smooth and successful completion of the activities it would support?	N/A	

IX. CONTENTS OF TECHNICAL ANNEXES (ATTACHED)

[Please check the following link to download these annexes](#)

[Include only those annexes that differ from those of the original project. If there is no difference, please indicate so by including the title of the annex and “same as in the original project”](#)

Annexes related to the strategic context

- Annex 1-1: Project Classification by High 5, Area of Intervention and SDGs
- Annex 1-2: AfDB's Current Portfolio in the Country
- Annex 1-3: Similar Projects Financed by the Bank and other Partners in Country
- Annex 1-4: Country's Comparative Socio-economic Indicators
- Annex 1-5: Map of Project Area
- Annex 1-6: Country development agenda
- Annex 1-7: Sector and Institutional Analysis
- Annex 1-8: Development Partner Support Matrix

Annexes related to the project description

- Annex 2-1: Detailed Theory of Change
- Annex 2-2: Detailed Project Components
- Annex 2-3: Detailed Project Costs
- Annex 2-4: Lessons Learned

Annexes related to the project feasibility

- Annex 3-1: Economic and Financial Analysis
- Annex 3-2: Project Fragility/Resilience Assessment Note
- Annex 3-3: Gender Equality and Women's Empowerment Promotion

Annexes related to the project implementation

- Annex 4-1: Monitoring Plan
- Annex 4-2: Risk Matrix
- Annex 4-3: Detailed Implementation Plan
- Annex 4-4: Detailed Implementation Arrangements
- Annex 4-5: Detailed Procurement Arrangements
- Annex 4-6: Detailed Financial Management and Disbursement Arrangements
- Annex 4-7: Detailed Audit Arrangements
- Annex 4-8: Project Implementation Support Plan and Arrangements

i i i Ghana Investment Promotion Company (2021). *Ghana's Agricultural Sector Profile, May 2021*, www.gipc.gov.gh. Retrieved November 28, 2022, from <https://gipc.gov.gh/wp-content/uploads/2022/03/Agriculture-Sector-Profile-2021.pdf>

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- ⁱ (2022). *The Annual Public Debt Report for the 2021 Financial Year*. The Ministry of Finance and Economic Planning. <https://mofep.gov.gh/sites/default/files/reports/economic/2021-Annual-Public-Debt-Report.pdf>
- ⁱ (2019). Employment in agriculture (% of total employment) (modeled ILO estimate) - Ghana. data.worldbank.org. Retrieved November 28, 2022, from <https://data.worldbank.org/indicator/SL.AGR.EMPL.ZS?locations=GH>
- ⁱ (2021). *Manufacturing, value added (% of GDP) - Ghana*. data.worldbank.org. Retrieved November 28, 2022, from <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=GH>
- ⁱ (2022). Russia Ukraine Conflict: Effects on Agriculture and Food Security in Ghana. *Ministry of Food and Agriculture*. <https://doi.org/March, 2022>
- ⁱ McLaughlin, S. (2022, November 2). *Tackling wheat price rises instigated by conflict*. www.cimmyt.org. Retrieved November 28, 2022, from <https://www.cimmyt.org/news/tackling-wheat-price-rises-instigated-by-conflict/>
- ⁱ Dove, M. (2021). *Climate Risk Profile: Ghana (2021)*. The World Bank Group. https://climateknowledgeportal.worldbank.org/sites/default/files/2021-06/15857-WB_Ghana%20Country%20Profile-WEB.pdf
- ⁱ UNICEF (2022). *Girls' Education*. www.unicef.org. Retrieved November 28, 2022, from <https://www.unicef.org/ghana/girls-education>