

AFRICAN DEVELOPMENT FUND



PROJECT : SAVANNAH INVESTMENT PROGRAMME (SIP)

COUNTRY : REPUBLIC OF GHANA

PROJECT APPRAISAL REPORT

DATE: SEPTEMBER 2019

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September 2019

RDGW/AHAI/COGH DEPARTMENTS

AFRICAN DEVELOPMENT FUND



REPUBLIC OF GHANA

SAVANNAH INVESTMENT PROGRAMME (SIP)

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Currency Equivalents

July 2019

1 UA	=	GHS 7.31
1 USD	=	GHS 5.26
1 UA	=	USD 1.39

Fiscal Year

1st January – 31st December

Weights and Measures

1 metric tonne	=	2,204 pounds (lbs)
1 kilogramme (kg)	=	2.200 lbs
1 metre (m)	=	3.28 feet (ft)
1 millimetre (mm)	=	0.03937 inch ("")
1 kilometre (km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres

Acronyms and Abbreviations

ADF	African Development Fund
AFD	Agence française de développement
AEZ	Agro-Ecological Zone
AGRA	Alliance for a Green Revolution in Africa
ASWG	Agricultural Sector Working Group
BPS	Borrower Procurement System
CAADP	Comprehensive Africa Agriculture Development Programme
CPESDP	Coordinated Programme for Economic and Social Development Policies
CPIA	Country Policy and Institutional Assessment
CSP	Country Strategy Paper
CGIAR	Consultative Group on International Agricultural Research
CRI	Crop Research Institute
CSP	Country Strategy Paper
DA	District Assembly
DFID	Department for International Development
DP	Development Partners
DVCC	Divisional Value Chain Committee
EA	Executing Agency
EIA	Environmental Impact Assessment
EIRR	Economic Internal Rate of Return
EPA	Environmental Protection Authority
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ECOWAS	Economic Community of West African States
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations

GDP	Gross Domestic Product
GAP	Gender Action Plan
EPA	Environmental Protection Agency
GHS	Ghana Cedi
GHG	Green House Gas
GIRSAL	Ghana Incentive Based Risk Sharing System for Agricultural Lending
GIS	Geographic Information System
GIZ	German Development Cooperation
GOG	Government of Ghana
GPRS-I	Ghana Poverty Reduction Strategy-Phase I
GPRS-II	Growth and Poverty Reduction Strategy-Phase II
GSGDA	Ghana Shared Growth and Development Agenda
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IITA	International Institute of Tropical Agriculture
IPR	Implementation Progress and Results Reporting
JAS	Joint Assistance Strategy
JICA	Japan International Cooperation Agency
KfW	German Development Bank
METASIP	Medium Term Agriculture Sector Investment Plan
MoFA	Ministry of Food and Agriculture
MoF	Ministry of Finance
MSE	Micro and Small-scale Enterprises
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
NPV	Net Present Value
NRGP	Northern Rural Growth Programme
NSEZ	Northern Savannah Ecological Zone
PCMU	Programme Co-ordination and Management Unit
PCR	Project Completion Report
PFJ	Planting for Food and Jobs
PSC	Programme Steering Committee
RMCs	Regional Member Countries
RFJ	Rearing for Food and Jobs
SAPIP	Savannah Zone Agricultural Productivity Improvement Project
SIP	Savannah Investment Programme
SME	Small and Medium Enterprise
SNV	<i>Stichting Nederlandse Vrijwilligers</i> (Netherlands Development Organisation)
SSE	Small Scale Enterprise
STD	Sexually Transmitted Disease
TAAT	Technologies for Africa Agriculture Transformation
UA	Unit of Account
USAID	United States Agency for International Development
UN	United Nations
WFP	World Food Programme

PROJECT SUMMARY

Project Overview: The Savannah Investment Programme (SIP) aims to reduce importation of animal protein, enhanced competitiveness of the poultry industry, improve small ruminants breeds and contribute to improved food and nutrition security. The Programme seeks to increase farmers' food and nutrition security and incomes through increased agricultural productivity and diversification; and enhance the creation and strengthening of agribusinesses to increase incomes of actors along the selected value chains on a sustainable basis. The project has four components: (i) Access to Agriculture Finance, (ii) Production Development, (iii) Agri-Business and Value Chain Development, and (iv) Project Management and Institutional Support. The Programme will be implemented over a five-year period (2019 – 2024) at a total cost of UA 25 million, of which UA 20 million is a loan from the ADF and UA 5 million represents the Government and beneficiaries' contribution.

Needs Assessment: The Guinea Savannah agro-ecological zone in Ghana present a good opportunity to develop large-scale agriculture needed to feed populations living in this region, the rest of Ghana and for export. However, this remains largely under-developed because of poor vegetative cover accounting largely for low soil organic matter, low soil fertility and high rates of soil erosion. The primary challenges to transforming the Guinea Savannah are raising on-farm productivity and improving physical infrastructure for transport, processing, and logistics. Development of this zone is perceived as a national imperative for Ghana's balance of payments, macro-economic stability, economic growth, food and nutrition security, job creation and poverty reduction.

Value Added for the African Development Bank: The proposed SIP contributes directly to the objectives of Feed Africa Strategy of the African Development Bank. As part of the Bank's High 5 Agenda and the objectives of "Feed Africa," the Bank is elaborating a strategy for its support to the four specific goals of Comprehensive Africa Agriculture Development Programme (CAADP). The project is aligned with the Bank's Jobs for Youth Strategy (2016-2025), the ENABLE Youth Programme and the Multi-Sectoral Nutrition Action Plan (2018-2025) and the Bank's TenYear Strategy (2013-2022). The Bank Group has a comparative advantage in supporting the agriculture value chains development activities that will transform the impoverished rural areas of the northern part of the country into zones of economic prosperity drawing on lessons from experiences gained from previous projects financed by the Bank in Ghana. The project will also leverage on the complementary Ghana Incentive Based Risk Sharing for Agricultural Lending (GIRSA) established by the Bank in conjunction with the Bank of Ghana. It will support Government's flagship Programme Rearing for Food and Jobs, as well as Planting for Food and Jobs (PfJ).

Knowledge Management: The Bank's results-based management system is adopted for this project. Knowledge will be generated through the establishment of a results-based Monitoring and Evaluation (M&E) system by the project which will be linked to the National M&E System in the Ministry of Food and Agriculture. 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. 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 ICT infrastructure (Intranet, short documentaries on Bank website, etc).

Loan information

Client's information

RECIPIENT : Republic of Ghana
EXECUTING AGENCY : Ministry of Food and Agriculture

Financing plan

Source	Amount (million)		Instrument
	UA	USD	
African Development Fund (ADF)	20.00	27.55	Loan
Government of Ghana (GoG)	3.50	4.82	Counterpart
Beneficiaries	1.50	2.07	Beneficiary
TOTAL PROJECT COST	25.00	34.44	-

ADF's key financing information

Loan currency	UA
Interest rate	1%
Tenure	30 years
Grace period	5 years
Commitment fee	0.50%
Other fees	NA

*if applicable

Timeframe - Main Milestones (expected)

Identification Mission	November, 2018
Preparation Mission	April, 2019
Concept Note Approval	May, 2019
Appraisal Mission	June, 2019
Programme approval	26 September, 2019
Effectiveness	15 November, 2019
Completion	31 December, 2024
Last Disbursement	31 March, 2025

Ghana: Savannah Investment Programme (SIP)
Result-Based Logical Framework (RBLF)

Country and Project Name: GHANA – Savannah Investment Programme (SIP)

Purpose of the Project: Enhance the productivity of the maize, soybean, poultry industry and small ruminants for increased food and nutrition security and reduced importation of animal protein in Ghana

RESULTS CHAIN	PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/ MITIGATION MEASURES	
	Indicator (including CSI)	Baseline (2019)	Target (2024)			
IMPACT	Reduced import of animal protein and household food and nutrition insecurity	Reduction in importation of poultry meat 395,000 MT annually	30% reduction in importation by 2024	MoFA reports, Project Reports Ghana Statistical Service (GSS) reports Household surveys Ghana Demographic and Health Survey		
		Increase in domestic food supply for key commodities soybean, maize poultry and small ruminants)	NA 1,000,000 mt annually			
		Prevalence of stunting in children under five years (Northern region)	33% (2014) <30%			
OUTCOMES	1. Increased Incomes of Value Chain Actors and New Wage Jobs	(i) Average net income of participating value chain actors increased by at least 30% (with 50% as women beneficiaries).	TBD poultry - 50%; small ruminant farmers - 20%; poultry feed millers - 20%; commercial maize and soybean farmers - 30%	Project Reports, MoFA reports, Ghana Statistical Service (GSS) reports, Household surveys	Risk 1: Ineffective policies allowing increased importation of cheap poultry products. Mitigation 1: The Bank to intensify dialogue with Government and support policy measures to reduce importation and increased quota for local production of poultry. Support to poultry industry advocacy	
		(ii) No. of wage jobs created (disaggregated by sex and age)	1. NA 1. 40,000 (50% women; 20% youth)			
	2. Increased private sector investment in priority value chains	Domestic and foreign investment (USD) in: – Soybean commercial farmers – Maize commercial farmers – commercial poultry Farmers/processing	TBD TBD TBD USD 6 million USD 5 million USD 5 million	MoFA reports, Ghana Investment Promotion Centre reports		
OUTCOMES	3. Improved productivity in selected value chains and improved food and nutrition security	Crop yield per unit area (t/ha) Proportion of children 6-23 months with a minimum acceptable diet (Northern region)	Soybean: 0.8 Maize: 2.5 14.1% 20%	Soybean: 2.5 Maize: 5.5 20%	Projects Reports, MoFA reports, Household surveys Ghana Demographic and Health Survey	
	OUTPUTS					
OUTCOMES	Component 1: Access to Agriculture Finance					
	1.1 Missing Middle Financing Vehicle Established and Functional	(i) Missing middle financing vehicle established to advance term loans to value chain actors	0	1	Progress reports M&E database Study reports	Risk 2: Unwillingness of FIs to offer term loans to agri-businesses, high interest rate, high default rate Mitigation 2: linking FIs to GIRSAL and putting in place mechanisms for periodic monitoring and flexible repayment schedule. Building capacities of participating FIs to develop agro-financial products to address the need of investors
		(ii) Number of value chain actors accessing term loan (Disaggregated by actors and gender)	0	50 (35% female)		
		(iii) Value of term loans advanced to value chain actors.	0	USD 6 million (including USD mil co-financing)		
	1.2 Poultry Revolving Fund established for small to medium scale	(i) Revolving fund to finance inputs to small-medium scale poultry farmers established	0	At least USD 2 million fund established		
		(ii) Number of small-medium scale poultry farmers accessing credit for inputs from the revolving fund	0	500 (30% women)		
		(iii) Value of credit for inputs accessed by small-medium scale poultry farmers	0	USD 1.5 M		
		(iv) Percentage (%) loan recovery	0	At least 90%		

Component 2: Production Development						
2.1 Increased Maize and Soybean production	(i) Total quantity of maize and soybean under Conservation Agriculture	0	Maize 55,000MT annually by 2024 Soybean 25,000MT annually by 2024	Crop Surveys Project progress reports	Risk 3: High cost of mechanisation services would restrict the use of machinery and equipment for upscale production of maize and soybean. inadequate skill in operating machinery and delays in servicing to maintain machinery	
	(ii) Increase in quantity of soya seed (breeder, Foundation & certified) produced annually (MT)	Maize - 120 Soybean - 140	Maize - 5,000 by 2014 Soybean - 5,000 by 2024	Crop Surveys Project progress reports		
2.2 Mechanization services provided and farmlands developed	i) Number of Agric Mechanization Services Centres (AMSECs) established/strengthened	0	10 centres by 2024	Progress reports M&E database	Mitigation 3: Mechanisation-service providers will be incentivised by the government to render cost-effective services to farmers Train operators in the right use/handling of machinery.	
	ii) Number of Agri-enterprises accessing term loans to procure land development equipment (30% being women)	0	50 (30% women)	Progress reports M&E database		
	iii) Number of commercial farmers accessing land development services annually (30% being women).	0	100 (30% women)	Progress reports M&E database		
	iv) Area (ha) developed for maize and soya	0	20,000 Ha	Progress reports M&E database		
2.3 Integrated Crop & Pest Management (ICPM) used for the control of Pests (FAW) and diseases for maize and soybean and Climate-smart agriculture principles demonstrated	i) Number of maize and soybean farmers trained by type: - sanitary and phytosanitary production of maize and soybean - conservation agriculture technologies	0 0	500 (30% women) 700 (30% women)	Progress reports M&E database	Risk 4: The proposed project area is prone to extreme weather resulting from climate change impacts Lack of technical expertise by the private sector seed producers in the production of foundation seed and inadequate technical know-how of actors along the seed value chain	
	ii) Number of extension farmers and extension agents trained on by type - ICPM methods - climate-smart approaches to maize production	0 0	300 (30% women) 700 (30% women)			
	iii) Size of land planted with economic trees (shea, mango, moringa) as alleys	0	500 ha			
2.4 Small-to-medium scale poultry production promoted	i) No. of poultry farmers supported with day old chicks	0		M&E database Progress reports	Mitigation 4: ESMPs will incorporate integrated pest management plans and climate risk mitigation and adaptation measures. No till practises have been demonstrated to mitigate against drought. Drought tolerant varieties of maize and soybean to be promoted.	
	ii) Number of poultry houses rehabilitated/built	0	100			
	iii) Number of poultry farmers trained in disease control, disease surveillance and diagnosis	0	100 (30% women)			
	iv) Train livestock farmers in animal husbandry and health	0	50			
2.5 Breeding of small ruminants promoted	i) No. of improved breeds of small ruminants supplied to out grower breeders	0 0	13,000 (8,000 sheep, 5,000 goats)	Progress reports M&E database	Mitigation 4: ESMPs will incorporate integrated pest management plans and climate risk mitigation and adaptation measures. No till practises have been demonstrated to mitigate against drought. Drought tolerant varieties of maize and soybean to be promoted.	
	ii) Hectares of improved pasture established in different locations	0	20 Ha			
	iii) No. of small ruminants being tracked with ICTs	0	13,000			
	iv) Number of outbreeders trained in small ruminants' management skills	0	275 (30% women)			
	v) Number of extension officers trained in small ruminant's management skills	0	30			
Component 3: Agri-Business and Value Chain Development						
2.6 Value addition of SME developed	i) One Coordinating Company established	0	1	Progress reports M&E database		
	ii) Number of small-to-medium poultry processing plants established/expanded	0	5			
	iii) Number of hatcheries developed/expanded	0	5			
	iv) Number of agro enterprises developed	0	30			
	v) Number of supermarkets linked to poultry enterprises	0	20			
	vi) No. of poultry distribution networks supported with skills development	0	200			
	vii) Number of feed millers trained to improve feed stock	0				
2.7 Youth and women empowerment and improved household nutrition	i) Number of women and youth mentored in small-scale commercial poultry	0	700 (500 females, 200 youth)	Progress reports M&E database		
	ii) Number of households sensitized in consumption of local poultry/eggs	0	100,000 (minimum 60% women)			
	iii) Number of cockerels distributed to households	0	150,000			
	iv) Number of households benefitting from local cockerel breed improvement	0	2,000 (1,500 women)			
	v) Number of women farmers trained in improved animal husbandry, business management and financial literacy	0	200			
Component 4: Project Management and Institutional Support						

KEY ACTIVITIES	2.8 Work plan and operations are implemented	i) Annual Work Plans and Budget developed annually ii) No. of site-specific ESMPs developed in SIP operational area iii) Rate of implementation of site-specific ESMPs	0 0 0	5 10 At least 95%	Progress reports M&E database	
	2.9 2. Programme activities monitored and information produced regularly	i) Number of progress reports prepared quarterly ii) No. of financial/procurement audit reports prepared	0 0 0	20 5 5	Project reports Audit reports Study reports	
	3. Results-based monitoring and evaluation system	Results-based monitoring and evaluation system operational	0	1	Project reports	
	4. Relevant assessment conducted	Impact assessments conducted	0	1	Project reports	
	5. Improved Institutional support	i) No. of NPSC meetings held ii) Implementation Plan for the Ghana Livestock Development Policy prepared iii) Number of soil suitability survey conducted iv) Review and development of FASDEP III	0 0 0 0	10 TBD 20 TBD	Project reports, minutes of meeting - Survey reports	
	COMPONENTS	INPUTS				
	1) Access to Agriculture Finance: Establish “Missing Middle Financing Vehicle” with Risk Sharing Facility (GIRSAL) to advance term loans to commercial farmers, Establish Commercial Poultry Revolving Fund to finance inputs to small-to-medium scale poultry farmers, Support Co-Financing Opportunities with Ghana Exim Bank, Agriculture Development Bank, etc					
	2) Production Development: Increase the production of basic seeds, Production and promotion of certified hybrid maize and improved soybean seed, in collaboration with seed companies, Support to land development and mechanisation services, Training of producers, pack house operators and exporters on sanitary and phytosanitary (SPS) issue relating to maize and Soybeans , Farmer mobilisation and awareness creation, Train project staff and farmers on Integrated Crop and Pest Management (ICPM), including biological control options for the management Fall Army Worm (FAW) and aspergillus on Maize and Soybeans, Conduct surveillance and collect data on pests attacking the Maize and Soybeans in the project zones with specific reference to FAW					
	3) Agri-Business and Value Chain Development: Facilitate the setting up a “Coordinating Company” by commercial farmers to coordinate activities and services, Promotion of quality standards for maize and soybean production, storage and processing, Support the establishment of small-to-medium scale poultry processing units at district level, Support business development, including improvements in business processes of existing commercial farmers, Enhance access to market information (e.g. quantity, quality, timing and pricing),					
	4) Project Management and Institutional Support: Development of annual work plan and budget, establishment of results-based monitoring and evaluation system, Conduct Beneficiary Impact Assessment. Conduct Project Mid-Term Review, Conduct Project Completion/Technical Review (PCR), Video and pictorial documentation of success stories, development and implementation of site specific ESMPs, Support to the coordination and implementation of Rearing for Food and Jobs, undertake relevant studies, including socio-economic surveys, soil suitability surveys, Implementation of the Gender Action Plan (GAP)					
COMPONENTS						
UA Million						
Percentage						
1. ACCESS TO AGRICULTURE FINANCE						
4.42						
18%						
2. PRODUCTION DEVELOPMENT						
12.88						
52%						
3. AGRI-BUSINESS AND VALUE CHAIN DEVELOPMENT						
4.09						
16%						
4. PROJECT MANAGEMENT AND INSTITUTIONAL SUPPORT						
3.61						
14%						
TOTAL PROJECT COSTS						
25.00						
100%						
Total Project Cost (UA million): 25						
ADF Loan : UA 20 Million						
Other sources						
GoG Counterpart + Beneficiaries : UA 5 Million						

Programme Timeframe

Task Name	2019	2020				2021				2022				2023				2024				
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Negotiations																						
Board approval																						
Signature of Loan and Grant Agreement																						
Appointing remaining PCMU team members																						
Satisfaction of conditions for effectiveness and first disbursement																						
Programme launch																						
Finalization and validation of procedures manuals																						
Conducting baseline studies and development of site specific ESMPs																						
Preparing, signing agreement/protocols with implementing partners																						
Prepare, approve Bid docs and contract awards for Goods, Works & Services																						
Contracts execution for Goods, Works and Services																						
Quarterly reports submission																						
Annual reports submission																						
Programme Work plans and Budgets																						
Steering committee meetings																						
Bank's supervision missions																						
Audit																						
Mid-term review																						
Programme Completion Reporting																						
Impact assessment and technical audit																						

REPORT AND RECOMMENDATION OF MANAGEMENT FOR THE PROPOSED ADF LOAN OF UA20.0 MILLION TO THE REPUBLIC OF GHANA FOR THE FINANCING OF THE SAVANNAH INVESTMENT PRORGAM (SIP)

Management submits the following report and recommendation on a proposed ADF loan of UA20.0 million to finance the Savannah Investment Programme (SIP) in Ghana.

I STRATEGIC THRUST & RATIONALE

1.1. *Programme linkages with country strategy and objectives*

1.1.1 The Savannah Investment Programme (SIP) is designed within the context of the **Ghana Medium-Term Development Framework (2018-2021) and the Coordinated Programme of Economic and Social Development Policies (2017-2024)**, that seeks to transform Ghana's economy and society including building or strengthening the essential elements of good governance and promoting light manufacturing that builds upon Ghana's comparative strength in natural resource endowments and the large pool of skilled and semi-skilled labour force. These development plans and initiatives will be underpinned by the "Ghana Beyond Aid" vision to change mind-sets of Ghanaians towards increased reliance on internal resources plus private investment to lead economic transformation.

1.1.2 The national vision for the food and agriculture sector is a modernised agriculture culminating in a structurally transformed economy and evident in food security, employment opportunities and reduced poverty. The objectives for the food and agriculture sector policy include: (i) Food security and emergency preparedness; (ii) Improved growth in incomes; (iii) Increased competitiveness and enhanced integration into domestic and international markets; (iv) Sustainable management of land and environment; (v) Science and Technology Applied in food and agriculture development; and (vi) Improved Institutional Coordination.

1.1.3 The main strategic and investment plan for the agriculture sector is the Investment for Food and Jobs (IFJ) covering the period 2018 to 2021. Four broad Programmes under this plan include: (i) Sector Management and Administration; (ii) Crops and Livestock Development; (iii) Agribusiness Development; and (iv) Sustainable Management of Land and Environment. These Programmes are being implemented using five priority initiatives which are: (i) Planting for Food and Jobs (PFJ); (ii) Planting for Export and Rural Developments (PERD); (iii) Rearing for Food and Jobs (RFJ); (iv) Agricultural Mechanization Programme (AMP); and (v) Promotion of greenhouse technology. The proposed operation responds and provides support to Government's Rearing for Food and Jobs (RFJ) and Planting for Food and Jobs (PfJ).

1.1.4 The proposed operation contributes directly to objectives Feed Africa Strategy of the African Development Bank. As part of the Bank's High 5 Agenda and the objectives of "Feed Africa," the Bank is elaborating a strategy for its support to the four specific goals of CAADP (i) contribute to eliminating extreme poverty in Africa by 2025; (ii) end hunger and malnutrition in Africa by 2025; (iii) make Africa a net food exporter; and (iv) move Africa to the top of export-orientated global value chains where it has comparative advantage. The project is aligned with Bank's Jobs for Youth Strategy (2016-2025), the ENABLE Youth Programme and the Multi-Sectoral Nutrition Action Plan (2018-2025). This operation is aligned with Bank's Ten Year Strategy (2013-2022) and supports its twin objectives of inclusive growth and transition to green economy.

1.1.5 The Bank’s Country Strategy Paper (CSP) 2019 – 2023 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.

1.2. *Rationale for Bank’s involvement*

1.2.1 The Ghanaian economy is based largely on agriculture which accounts for 21.2 percent of the Gross Domestic Product (GDP) and Livestock sector contributed 14.0% to agricultural GDP in 2017 (GSS, 2018). About 44.7 percent of the labour force is engaged in the agriculture sector mostly operating either a crop farm or a mixed crop and livestock/poultry farm. The livestock/poultry component serves as a ‘safety net’, providing an important source of ready cash for emergency needs. The role of livestock and poultry in rural livelihoods and food and nutrition security are significant. According to the Ministry of Food and Agriculture, the agricultural sector in Ghana is constrained by a variety of challenges and gaps. The agriculture sector grew by 4.8 percent in 2018 compared to a growth rate of 6.1 percent in 2017. Consequently, the sector’s contribution to GDP contracted from 21.1 percent in 2017 to 19.7 percent 2018. Of all the agricultural activities, the livestock sub-sector’s contribution to GDP recorded the second largest contraction of 0.3 percentage points after crops, which recorded a contraction of 0.9 percentage points. In addition to the contraction of the livestock sub-sector, its growth declined from 5.7 percent in 2017 to 5.4 percent in 2018.

1.2.2 The slow growth rate of the livestock sub-sector is mainly attributable to a number of factors including inadequate supply of inputs such as breeding stock, feed, medication, appropriate animal husbandry practices, access to credit, low technology dissemination and adoption. With respect to broiler production, high cost of feed, especially maize and soybean that accounts for at least 60% of production cost makes local production uncompetitive. These challenges have continued to constrain sustainable agricultural development in the country resulting in general low productivity of the livestock sector. The low productivity of indigenous breeds of livestock coupled with limited supply of improved livestock to farmers has led to poor production and productivity of the livestock industry. This affects the nation’s ability to provide sufficient and affordable quantities of quality meat and livestock products to meet demand.

1.2.3 Despite various policy interventions by the Ministry of Food and Agriculture to increase production, distribution and consumption of the various livestock and livestock products, local production has not kept pace with increased demand. As part of the comprehensive strategy by the current administration of the country is to resolve the perennial challenges with the livestock sector, and provide incremental jobs in the country, the government has designed a strategic Programme intervention, Rearing for Food and Jobs (RFJ). This Programme is to overcome the food and nutritional deficits situation and reduce drastically the importation of basic livestock commodities where Ghana has both competitive and comparative advantage to produce, as well as create more jobs within the agriculture and related sectors. The RFJ Programme focuses on five key livestock species in the country including; cattle, sheep, goats, pigs and poultry.

1.3. *Donors' coordination*

1.3.1 Donor coordination in Ghana is carried out at various levels. There are three levels of development partner coordination; the Heads of Missions, Heads of Cooperation and Agencies, and 14 sector working groups (SWG). Dialogue at the SWG level is jointly led by development partners (DP) and Government and aims at implementing the commitments under both the Paris Declaration (PD) on Aid Effectiveness, the Accra Agenda for Action (AAA) and the Busan Agenda for Action.

1.3.2 The key development partners that are active in the agriculture sector are: L'Agence Française de Développement (AFD); Department for International Development (DfID); Global Affairs Canada; Alliance for Green Revolution in Africa (AGRA); European Union; German Dev. Co-op (KfW Development Bank and GiZ); Netherlands Embassy; Australian High Commission; JICA; USAID and World Bank; UN Agencies (IFAD, FAO and WFP). Others are IFPRI, AGRA and international NGOs such as SNV and Catholic Relief Services. Donor activities cuts across various commodity value chains development; productivity enhancement; agricultural production and processing; infrastructure development; mechanization; irrigation; sustainable land management; climate change adaptation and mitigation; nutrition and food safety; MSE and agribusiness development; access to finance; access to land; and ICT for agriculture.

1.3.3 Key on-going/pipeline interventions by donors include CAD125 million facility for Modernizing Agriculture in Ghana (MAG). IFAD has provided USD71.60 million as loan for sustainable rural poverty reduction in rural areas and a grant of USD10.0 million to mitigate the effects of climate change. The European Development Fund Agriculture Fund has provided EUR147 million community development in the Northern Savannah Ecological Zone of Ghana. The Bank has successfully co-financed projects in the sector with other donors. The coordination of aid through the ASWG is enhancing aid effectiveness through harmonization and alignment of development partner support. The project will seek partnerships with the existing Ghana Poultry Project under USAID and AGRA's agro-dealer network Programmes. A matrix of interventions by donors is presented in Annex VI.

II PROGRAMME DESCRIPTION

2.1 *Programme Objectives*

2.1.1 Programme development goal: The overall goal of the programme 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.

2.1.2 Specific programme 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.

Programme Components

2.1.3 The programme has four components: (i) Access to Agriculture Finance; (ii) Production Development; (iii) Agri-Business and Value Chain Development; and (iv) Project Management and Institutional Support.

Component 1 – Access to Agriculture Finance: This component will seek to enhance access to agriculture finance through the establishment of a ringfenced facility dedicated to financing of various value chain actors. The project will set up the “**Missing Middle Financing Vehicle (MMFV)**” to provide term financing to medium scale value chain actors, applying a competitive rates and flexible payment plan that address the needs of each value chain actor. This “seed money” will be housed in a financial institution to be selected with guidance from the Bank of Ghana using a competitive process acceptable to the Bank. MMFV will be operated in close collaboration with Bank’s financed Ghana Incentive-based Risk Sharing Facility for Agricultural Lending (GIRSL) to de-risk lending to the agriculture sector. In addition, a Poultry Revolving Fund will be established to provide support in the form of inputs finance (housing, feed stock, day old chicks, vaccines and drugs, seed capital) to women and youth who have graduated from entrepreneurship Programme (described under Component 3) to establish small to medium scale commercial poultry production under out-grower system. This input support is expected to be recovered fully within a maximum of 1.5 years after production starts, for on-lending.

Component 2 - Production Development: The objective of this component is to promote the commercial production of maize and soybean, key ingredients for poultry feed, under conservation agriculture. This component will also support the commercial production of broiler, guinea fowls as well as breed improvement of sheep, goat and local chicken through a cockerel distribution under RFJ. The cockerel Programme is expected to improve the genetic materials of the local chicken to support household nutrition of resource poor small holder farmers. Technologies for productivity enhancement and climate smart agriculture would be promoted under the Technologies for African Agriculture Transformation (TAAT), including the use of drought tolerant maize varieties, inoculation of soybean, digital agriculture (including collaboration with relevant stakeholders such as CowTribe for disease surveillance) and measures to control fall armyworm.

Component 3 - Agri-Business and Value Chain Development: This component will provide support to value chain actors, especially feed processors and broiler meat processors with emphasis on value addition and market linkages. It seeks to promote quality measures for products to meet market requirements. Capacity building for women and youth in small-scale commercial poultry business management and entrepreneurship, including mentorship is key under this component. It will establish women and youth entrepreneurship Programme that includes practical industrial attachment with commercial poultry producers. After graduation, the successful candidates would receive support through the poultry revolving fund to finance inputs that would be recovered after first year production of broilers and guinea fowls. Contractual arrangements and enforcement would be promoted under out-grower arrangements with anchor investors also serving as off-takers and developing a robust agri-business ecosystem. This component will also promote the consumption of local poultry and eggs to improve household nutrition, especially maternal and child nutrition to prevent stunting. This will build the capacity of small holder farmers in animal husbandry including feeding, housing and animal health.

Component 4 - Project Management and Institutional Support: The Project Management and Co-ordination of the Savannah Zone Agriculture Productivity Improvement Project (SAPIP) will be responsible for the day to day management of the project. It will also be responsible for Monitoring and Evaluation (M&E), agri-business promotion, gender equality and women’s empowerment and implementation of the Project Environmental and Social Management Plan. The existing Project Coordination and Management Unit (PCMU) of SAPIP will be augmented with additional staffing including a Procurement Officer, Animal Production Specialist, Agricultural Engineer, Monitoring and Evaluation Officer, an Investment Officer and an Assistant Accountant.

2.1.4 The summary of activities are indicated in Table 2.1 below.

Table 2.1: Summary of Activities in the Components

No	Component Name	Amount (UA Mil.)	Sub-Component and Activities
1	Access to Agriculture Finance	3.6	<ul style="list-style-type: none"> Establish “Missing Middle Financing Vehicle” with Risk Sharing Facility (GIRSLA) to advance term loans to value chain actors including commercial farmers, feed processors and broiler processors Establish Commercial Poultry Revolving Fund to finance inputs to small-to-medium scale poultry farmers Support Co-Financing Opportunities with Ghana Exim Bank, Venture Capital Fund, Commercial Banks etc
2	Production Development	10.6	Sub-component 2.1 Commercial Production of Maize and Soybean under Conservation Agriculture <ul style="list-style-type: none"> Production and promotion of certified hybrid maize and improved soybean seed, in collaboration with seed companies. Support to address policy, regulatory and institutional constraints limiting access to certified maize and soybean seed Support to land development and mechanisation services, including co-financing of land development by farmers. Training of producers, haulers, aggregators and marketers on sanitary and phytosanitary (SPS) issue relating to maize and soybeans Farmer mobilisation and awareness creation on conservation agriculture. Train project staff and farmers on Integrated Crop and Pest Management (ICPM), including biological control options for the management Fall Army Worm (FAW) and aspergillus on Maize and Soybeans. Conduct surveillance and collect data on pests attacking the Maize and Soybeans in the project zones with specific reference to FAW. Support out-grower contractual arrangements Use of ICT for soil suitability assessment and GIS mapping of commercial farms Promotion of climate smart agriculture, environmental conservation best practices, including use of tree crops such as shea, dawadawa, mango, cashew, etc as alleys Promote the use of Nitrogen fixing inoculants to boost soybean yield
			Sub-component 2.2 Promotion of Small and Medium Scale Commercial Poultry Production <ul style="list-style-type: none"> Input support to small and medium scale commercial poultry farmers (housing, poultry house, day old chicks, feed stock, vaccines, veterinary drugs, etc) Support to poultry diseases surveillance, diagnosis and control Training and capacity building on business development, animal husbandry and health Support to hatchery expansion, including parent stock for broilers, guinea fowls and local chicken
			Sub-component 2.3 Development of Breeding Stock of Small Ruminants and Local Chicken <ul style="list-style-type: none"> Support the supply of improved breeding stock to breeding stations and out-grower breeders, a key component of small ruminant value chain under Rearing for Food and Jobs in the Savannah Area Support to improved pasture development and management Rehabilitation of animal housing at the breeding stations Installation of a traceability system and GIS mapping of out breeder farms Capacity building for participating out breeders and extension officers Support to animal husbandry and health
3	Agri-Business and Value Chain Development	7.2	Sub-component 3.1 Value Addition and SME Development <ul style="list-style-type: none"> Facilitate the setting up a “Coordinating Company” by commercial farmers to coordinate activities and services Promotion of quality standards for maize and soybean production, storage and processing Support the establishment of small-to-medium scale poultry processing units at district level Support business development, including improvements in business processes of existing commercial farmers Enhance access to market information (e.g. quantity, quality, timing and pricing) Promote the development of allied services (packaging, new distribution networks for poultry products, transport services, new agro-input delivery systems, etc) Support and training poultry producers on ISO 9000 & other necessary certification requirements on poultry to access premium market. Support to feed millers to improve feed stock and expand processing capacity Enhance investment facilitation and promotion to increase the number of commercial producers and processors in the Savannah region Sub-component 3.2 Youth/Women Empowerment and Nutrition <ul style="list-style-type: none"> Promote other income generating activities for women and youth, including as shea, dawadawa, mango, cashew, production and processing Support women and youth on marketing and supply of poultry products to key institutions and Programmes including the school feeding Programme Capacity building for women and youth in small-scale commercial poultry business management and entrepreneurship, including mentorship. Promote the consumption of local poultry and eggs to improve household nutrition, and in particular maternal and child nutrition to prevent stunting Promote the breed improvement of local poultry through cockerel distribution Programme
4	Project Management and Institutional Support	3.6	Sub-Component 4.1 Knowledge Management, Monitoring and Evaluation <ul style="list-style-type: none"> Development of annual work plan and budget Establishment of results-based monitoring and evaluation system Conduct Beneficiary Impact Assessment. Conduct Project Mid-Term Review. Conduct Project Completion/Technical Review (PCR). Video and pictorial documentation of success stories Subcomponent 4.2 Institutional and Policy Support <ul style="list-style-type: none"> Support to the coordination and implementation of Rearing for Food and Jobs Undertake relevant studies, including socio-economic surveys, soil suitability surveys Support to relevant policy and regulatory reforms, including development of Food and Agriculture Sector

No	Component Name	Amount (UA Mil.)	Sub-Component and Activities
			<p>Development Policy III (FASDEP III) and Implementation Plan for the Ghana Livestock Development Policy</p> <ul style="list-style-type: none"> • Development and Implementation of Environmental and Social Management Plan (ESMP) • Enhance capacity to mobilize private sector investors in the maize-soybean-poultry industry • Review and implement the Gender Action Plan (GAP) <p>Sub-component 4.3 Project Coordination.</p> <ul style="list-style-type: none"> • Upgrade the project coordination unit with additional staff • Procure PCU vehicles, office equipment and furniture as may be required. • Facilitate production of annual financial audits. • Facilitate production of procurement audit. • Facilitate Project Steering Committee (PSC) meetings.

2.2 *Technical solutions retained and other alternatives explored*

2.2.1 Table 2.2 presents design options considered and reasons for their rejection.

Table 2.2: Project alternatives considered and reasons for rejection

Alternative name	Brief description	Reasons for rejection
Instrument: Project vs. sector budget support Programme for RFJ	Under sector budget support, resources are disbursed in tranches based on triggers agreed upon.	Due to the small size of the support <i>vis a vis</i> the sector needs, project support which will better create visibility, ensure attribution and enhance monitorability of results is selected over a sector budget support. This visibility and attribution is of interest to the African Development Bank as it forms part of its broader TAAT-S initiative.
Access to Finance: Use Matching Grant Mechanisms	Provide matching grant for value chain actors to gain access to finance for the establishment and growth of their enterprises.	The use of matching grant mechanisms is unsustainable. The MMFV and PRF backed by the opportunities availed through GIRSAL is assessed as a more effective instrument to bring participation of financial intermediaries in the sector.
Capacity Building of Poultry Enterprises: Use farmer institutes to train new entrants	Use the MoFA Farm Institutes to train new entrants into the Poultry Industries	There exist champions in the industry who can serve as mentors and handhold the new entrants. Some of these champions, (e.g. Darko Farms) are using similar model will also provide the new entrants with necessary inputs and an organized market outlay for their products.

2.3 *Project type*

This is an investment project financed with an ADF loan.

2.4 *Programme cost and financing arrangements*

2.4.1 2.4.1 The total cost of the programme is estimated at UA 25 million, net of taxes, and based on 2019 prices, comprising UA 9.46 million (38%) of the total cost in foreign cost, and UA 15.54 million (62%) in local cost. The total cost is inclusive of physical and price contingencies estimated at average rates of 15% and 2.5%, respectively.

2.4.2 The programme cost of UA 25 million will be partly financed by an ADF loan of UA 20 million (80% of project costs) covering all major activities including rehabilitation and construction of infrastructure. The Government of Ghana will contribute UA 3.39 million (13.6% of project costs) through the provision of office space and allied facilities, support land preparation, and provision of agricultural machinery. The farmer beneficiaries' contribution of UA 1.6 million (6.4% of project cost) will be towards part payment for land preparation and inputs. The summary of estimated costs by component and category of expenditure are presented in Tables 2.3 and 2.5. The summary of project costs schedule component, source of finance by category of expenditure and sources of finance are presented in Tables 2.4 and 2.6. Detailed project cost tables are presented in Section B2 of the Technical Annexes to this report.

Table 2.3: Summary of Project Cost by Component (USD/UA)

COMPONENTS	(USD '000)			(UA '000)			% Foreign Cost	% Total Costs
	Local Cost	Foreign Cost	Total Cost	Local Cost	Foreign Cost	Total Cost		
1. ACCESS TO AGRICULTURE FINANCE	6,049.50	40.50	6,090.00	4,383.70	29.35	4,413.04	1	19
2. PRODUCTION DEVELOPMENT	9,155.00	7,223.00	16,378.00	6,634.06	5,234.06	11,868.12	44	50
3. AGRI-BUSINESS AND VALUE CHAIN DEVELOPMENT	2,645.00	2,755.00	5,400.00	1,916.67	1,996.38	3,913.04	51	17
4. PROJECT MANAGEMENT AND INSTITUTIONAL SUPPORT	2,441.60	2,380.40	4,822.00	1,769.28	1,724.93	3,494.20	49	15
TOTAL BASELINE COSTS	20,291.10	12,398.90	32,690.00	14,703.70	8,984.71	23,688.41	38	100
PHYSICAL CONTINGENCIES	690.59	298.71	989.30	500.43	216.46	716.88	30	3
PRICE CONTINGENCIES	464.39	354.99	819.37	336.51	257.24	593.75	43	3
TOTAL PROJECT COSTS	21,446.08	13,052.60	34,498.67	15,540.64	9,458.40	24,999.04	38	106

Table 2.4: Project Costs by Financing Sources (UA '000)

Sources of finance	Foreign Cost	Local Cost	Total Cost	% Total Cost
ADF Loan	8,329.11	11,672.48	20,001.60	80.0
Government	870.86	2,523.78	3,394.64	13.6
Beneficiaries	258.43	1,344.38	1,602.81	6.4
Total	9,458.40	15,540.64	24,999.04	100.0

Table 2.5: Summary Project Cost by Expenditure Categories (USD/UA)

CATEGORY	(USD '000)			(UA '000)			% Foreign Exchange	% Total Costs
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs								
A. WORKS	5,723.75	2,171.25	7,895.00	4,147.64	1,573.37	5,721.01	28	24
B. GOODS	1,844.50	5,533.50	7,378.00	1,336.59	4,009.78	5,346.38	75	23
C. SERVICES	5,844.95	4,424.05	10,269.00	4,235.47	3,205.83	7,441.30	43	31
D. MISCELLANEOUS	6,000.00	-	6,000.00	4,347.83	-	4,347.83	-	18
Total Investment Costs	19,413.20	12,128.80	31,542.00	14,067.54	8,788.99	22,856.52	38	96
II. Recurrent Costs								
E. OPERATION & MAINTENANCE	877.90	270.10	1,148.00	636.16	195.72	831.88	24	4
Total BASELINE COSTS	20,291.10	12,398.90	32,690.00	14,703.70	8,984.71	23,688.41	38	100
PHYSICAL CONTINGENCIES	690.59	298.71	989.30	500.43	216.46	716.88	30	3
PRICE CONTINGENCIES	464.39	354.99	819.37	336.51	257.24	593.75	43	3
TOTAL PROJECT COSTS	21,446.08	13,052.60	34,498.67	15,540.64	9,458.40	24,999.04	38	106

Table 2.6: Summary Project Cost Schedule by Components (UA '000)

COMPONENTS	Totals including contingencies					
	2020	2021	2022	2023	2024	Total
1. ACCESS TO AGRICULTURE FINANCE	882.93	882.93	882.93	882.93	882.93	4,414.67
2. PRODUCTION DEVELOPMENT	1,520.14	5,216.55	2,242.62	2,281.80	1,623.89	12,884.99
3. AGRI-BUSINESS AND VALUE CHAIN DEVELOPMENT	481.85	1,726.58	955.22	458.05	464.92	4,086.63
4. PROJECT MANAGEMENT AND INSTITUTIONAL SUPPORT	1,368.31	642.56	633.59	543.42	424.86	3,612.75
TOTAL PROJECT COSTS	4,253.24	8,468.63	4,714.36	4,166.20	3,396.60	24,999.04

2.5 Programme's target area and population

2.5.1 The main operational area of this project is the Savannah zone of Ghana. A key feature of this project is support to “value chain actors” to ensure an integrated production-processing-marketing ecosystem. Target districts were selected based on (i) presence of critical mass of commercial farmers with appreciable land size with tenure security, (ii) soil and climate suitability (iii) presence of agriculture mechanization services center or its equivalent (iv) potential for commercial broiler and/or guinea fowl production and (v) feed and broiler meat processors. The presence of a breeding station and critical population of small ruminants is also part of the consideration.

2.5.2 The programme area is located in 9 districts namely: (1) Tamale Metro, (2) Mion, (Northern Region); (3) East Mamprusi (North East Region); (4) West Gonja, (Savannah Region); (5) Keta Krachi East (Oti Region), (6) Bawku West, (Upper East); (7) Wa Municipal, (8) Sissala East, and (9) Nandom (Upper West);. The project will support breed improvement Programme under RFJ in the 11 districts which are: (1) Savelugu, (Northern Region); (2) West Mamprusi, (North East Region); (3) Bole (Savannah Region); (4) Kassena Nankana Municipal , (Upper East); (5) Wa Municipal, , (6)Lawra (Upper West); (7) Kintampo North (Bono East), (8) Nkwanta South (Oti Region), (9) Ejura District (Ashanti Region), (10) Ledzokuku Krowor and (11) Adenta Municipal (Greater Accra Region).

2.6 Participatory process for Programme identification, design and implementation

2.6.1 Programme preparation involved consultations with key private sector actors along the integrated poultry value chain comprising commercial farmers (maize and soybean), input dealers, research, commercial poultry farmers, feed processors, broiler processors and marketers. An extensive public consultations process was undertaken during the identification and preparation missions.

2.6.2 A national stakeholder workshop was held in Tamale, involving key partners, followed by consultations at the regional, district and community levels. Field visits were undertaken to farmers' fields and relevant poultry and livestock infrastructure. Some of the key outcomes of these consultations include low access to agriculture finance to finance inputs along the value chain, low productivity of maize and soybean production, poor performance of local breeds (sheep, goats and local chicken). Beneficiaries would be engaged during annual Programme planning to ensure key activities to address their issues are incorporated in annual work plan and budget. They will also participate in technical review meetings and field visits to check on progress of implementation. Project direct beneficiaries are maize and soybean farmers, poultry farmers, livestock farmers, youth and women engaged in entrepreneurship Programme.

2.7 Bank Group experience, lessons reflected in the Programme design

2.7.1 The Bank Group portfolio in Ghana currently comprises 21 operations with a total value of UA 607.3 million and average project size of UA 45 million and has disbursed a total of UA 248.047 million as at the end of March 2019. The portfolio consists of 11 public sector operations with a total value of UA 318 million, 1 multinational operation valued at UA 1.13 million, and 9 Private sector operations with a total exposure of UA 287.5 million. The portfolio performance for public sector projects is assessed as satisfactory with an overall assessment score of 3.3 (on an IPR scale of 1 to 4).

2.7.2 The PCRs for all completed projects have been prepared and submitted; there is no PCR backlog for the agriculture projects. Despite the improvement in the portfolio as shown in the key performance indicators, some challenges were also encountered. Start-up delays due to lengthy ratification and approval processes as well as delays in fulfilling effectiveness conditions were major setbacks. The average time from approval to first disbursement is 16 months and the average time from approval to signature is 7 months. Further details are provided in Annex B1.2 of the Technical Annexes.

2.7.3 The project design has drawn on lessons learnt from the Bank and other DPs' extensive experience in Ghana, particularly in the agriculture sector. Project quality at entry, start-up delays, weak institutional capacity contributed to implementation challenges. Key lessons and how they have been incorporated in the project design is presented in the Table 2.7 below.

Table 2.7: Lessons Learnt and Incorporation into programme design

No	Lessons Learnt	Actions Incorporated in the Project Design
1	Project Start-Up Delays	Streamline loan/grant conditions and continuously work with authorities to fulfil conditions prior to board approval. Engage Parliamentary Committees and Solicitor General early and get their inputs as well as buy-in during appraisal stage. (Minutes of negotiations to factor in Parliamentary recess where relevant). Ensure that the budget for year one and procurement plan is available by the effectiveness date.
2	Availability of designs/drawings infrastructure for the required civil works at project start-up are important to avoid implementation delays	The Government of Ghana, through the existing project SAPIP and under the Rearing for Food and Jobs Programme has already developed standard designs for infrastructure under this project. Early sensitization of stakeholders.
3	Adequate consultation with stakeholders in selection of sites to address lack of ownership of project facilities, especially new regions and districts recently created	Project sites selected were in full consultations with the various stakeholders at the community, district and regional levels. An extensive consultation has already been undertaken with all value chain actors for the commercial production of soybean, maize and integrated poultry value chain. The consultation process will continue during the implementation and completion stages of the project
4	Weak Institutional Capacity and implementation. Seconded staff from Government were often saddled with other duties contributing to significant implementation delays	The project has adopted the use of a standalone project management unit responsible for day-to-day implementation. The existing PCMU of SAPIP has received adequate training on Bank's rules and procedures. The Unit will be augmented with additional staffing to facilitate the implementation of this operation. Staff seconded to project must be dedicated solely to the implementation of the Project

2.8 Key performance indicators

The overall impact of the SIP includes improved food and nutrition security, job creation and wealth creation for commodity value chain actors. Through improved agricultural production, productivity and market linkages, about 20,000 jobs will be created, of which women and youths account for about 60%, along the value chains. It is envisaged that there will be income increase by 25% along the value chains and employment of women and youth in the agriculture sector. The project will establish 20,000 hectares of maize and soybean under conservation agriculture, contribute to the production of at least 20 million additional chicken (broilers, guinea fowls and local chicken) per annum in the project areas. The crowding in of private sector investment in terms of investment volume as a result of the demonstration of improved technologies and production systems will be a key indicator of success.

III PROJECT FEASIBILITY

3.1. Financial and economic performance

3.1.1 A financial assessment of the project was undertaken using activity models, and on the basis of prevailing market prices. The key assumptions underlying the analyses include: (i) The project will procure and distribute 13,000 small ruminants (sheep and goats) for 11 breeding stations and 275 outbreeders. In addition, 150,000 guinea keets and 300,000 cockerels would be distributed to small holder farmers as part of breed improvement for household nutrition; development of 20,000 Ha for soybean and maize production under commercial and out grower farming arrangements; and the opportunity cost of capital (OCC) used for discounting future benefits was estimated to be 12%. For the economic analysis, (ii) hired labour value was adjusted by a conversion factor of 0.75; (iii) family labour was valued at the prevailing wage rate; (iv) the rehabilitation of the laboratories will ensure improved animal health. These analyses were carried-out with financial and economic costs generated using Costab 32. Summary of financial and economic analysis is in Annex VII and 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) improved vaccine production and storage; (iv) improve average household income; (v) provide employment for 100,000 smallholders and commercial farmers; and (vi) enhanced animal health.

Table 3.1: key economic and financial figures

FIRR : 21% NPV (base case) is USD 11,271,182.32
EIRR : 24% NPV (base case) is USD 16,985,345.14

NB: detailed calculations are available in Annex B7

3.1.2 Financial analysis

Based on the above assumptions, the financial analysis generated Net Present Value (NPV) of USD 11,271,182.32 and financial internal rate of return (FIRR) of 21%, as captured in the technical annexes (B6). Based on the above analysis, the project is deemed financially feasible. The FIRR of 21% is higher than the opportunity cost of capital (12%).

3.1.4 Economic analysis

The economic analysis was conducted using the same approach as the financial analysis, on the basis of shadow prices of tradable goods, producer (farm gate) prices and total cost of project. In addition, other indirect benefits were also expected, such as, reduction in post-harvest losses; provision of mechanized services for agricultural production, reliable soil information system for fertilizer blends and lower cost of feed for livestock production. However, these additional benefits were not adequately captured in monetary terms due to the limited scope of this report. In these conditions, the economic analysis yielded an NPV of USD 16,985,345.14 and the economic internal rate of return (EIRR) of 24% as captured in the technical annexes.

3.1.5 Sensitivity analysis

In the case of corn, margin by hectare obtained under current situation is nearly three times (US\$ 484.5 p/ha) the margin obtained in an international prices scenario. In that cost structure profitability levels may reach 130 US\$/MT. In the case of soya the margin by hectare taking into account the premium price generated in the current situation almost doubles (US\$308.5 p/ ha) the existing margin for international prices. In this case profitability would be sustained up to 250 US\$/MT. The sensitivity to yields were closely analysed since productivity may be very volatile, especially during the first years. In this case we see that, ceteris paribus, profits would be sustained even with productivities of 4.5 MT / ha. Soya yields are sustained even with productivities of 1.5 MT/ha. That is to say that it would yield a profit even in a scenario of high volatility.

3.2. Environmental and social impacts

3.2.1 Environment

3.2.1.1 Based on the Bank's Integrated Safeguards System (ISS) and the Environmental and Social Assessment Procedures (ESAP) the proposed project has been classified as a Category 2. The project activities are expected to have environmental and social impacts that are site specific and can be avoided and minimised using the ESMF and site specific ESMPs. The project activities include: (i) provision of access to agricultural finance; (ii) production development through increase of maize and soybean production through mechanisation and improved land development integrated crop and pest management; (iii) agribusiness value chain development through promotion of storage and processing of poultry and feed and access to markets; (iv) and project management and institutional support. An ESMF has been developed for the project because the precise location of the project interventions are not known and consultations with the EPA confirmed that the project will require an ESMF based on environmental regulations in Ghana and

that the farms and processing facilities will require processing and permit fees which should be agreed between MoFA and EPA. This will ensure the management of the environment and social risks/issues of the project during project implementation.

3.2.1.2 The ESMF will guide the preparation of environmental and social assessment (ESA) and development of site specific ESMP during project implementation. The ESMF was reviewed by the Bank and will be cleared by the 31st of July 2019 and the summary was posted on the Bank's website on 26 August 2019. It will also be submitted to the EPA for validation and issuance of a permit including in country disclosure and proof of disclosure will be provided to the Bank. The Bank ensured that public consultations was adequately completed by the Borrower and more consultations will be during the development of site specific ESMP using the Stakeholder Engagement Plan developed for the project. The project is not envisaged to have land acquisition because the agricultural expansion and infrastructure development will be done on existing farms, which will be required to have security of tenure. However, the ESMF will include screening for involuntary resettlement, which may arise due to encroachment, and any land acquisition requirements to ensure that where OS2 applies the requirements are met by the project. The project has allocated USD340 000 for ESMF implementation as part of the project cost. This also includes institutional strengthening capacity for ESMP development and implementation through consultants and capacity building of country systems and local authorities; and monitoring and evaluation including an independent environmental audit.

3.2.1.3 SIP is anticipated to have the following significant positive impacts (i) increased maize and soybean production, feed and poultry processing that will contribute to increased income and livelihoods opportunities for value chain actors including women vulnerable groups, and support the local and national economy, (ii) improved access to agricultural finance and markets, (iii) improved agronomic and livestock rearing practices and technologies for selected crops and animals and improved varieties that are adapted to different climatic conditions (iv) improved agricultural production, productivity and market linkages that will foster job creation along the value chains. These benefits will be enhanced through: social inclusion and targeting of smallholder farmers, women and the youth (youth/women empowerment and nutrition sub-component); and by linking commercial and out-grower farmers and feed and poultry producers.

3.2.1.4 Anticipated Negative impacts during construction and implementation phase include: (i) loss of vegetation cover and habitat fragmentation due to site clearing (ii) land degradation, soil erosion, and pollution (iii) degradation of water resources through siltation and pollution (iv) noise, vibration and emissions from construction works and operation of machinery that may impair air quality and induce health implications, (vi) misuse of agrochemicals including pesticides and fertilizers that may have impacts on human health and biodiversity (vii) solid and liquid wastes generated from processing facilities (viii) increase in bush fires through the slush and burn traditional agricultural systems; (ix) climate risk impacts of GHG emissions and cumulative impacts of flooding if infrastructure is not well designed (x) increase in public health concerns (vector borne diseases, HIV/AIDs and other STDs) due to creation of vector habitats such as stagnant waters and influx of workers in project site areas and increased land conflicts due to commercialization, since most lands are customary.

3.2.1.5 During implementation phase, agriculture activities of value chain actors may lead to (i) misuse of agrochemicals including pesticides and fertilizers and improper dispose of containers which may contribute to soil and water (surface and groundwater) contamination, and increase health-risks of people exposed to pesticides, (ii) waste and effluents from processing and marketing facilities can result in soil and water contamination when not properly disposed of; production of odor leading to air quality pollution due to increased livestock production if manure and . These anticipated impacts are site specific and can be readily managed during construction and

agricultural production and processing activities with the development and implementation of site specific ESMP measures as follows: (i) restricting clearance of vegetation to construction and farming areas and revegetation by planting of trees of the cleared tree species; (ii) rehabilitation and filling of the exposed or excavated soil soon after completion of works and avoiding or minimizing compaction of soils (iii) establishing sustainable water management and flood mitigation systems; (iv) reduction of GHG emissions by ensuring well serviced machinery is used and proper processing facilities waste management; (v) capacity building of value chain actors to promote good agriculture and sustainable environment and land management practices; (vi) have oil spill prevention and management plans for mechanization centres; (vii) use of integrated crop and pest management (ICPM) and Waste-to Energy or recycling initiatives for processing facilities; (viii) using lessons learned from similar projects implemented in the past; (ix) resource use efficiency in terms of energy and water resources; (x) Use of country systems in monitoring compliance by the EPA (environmental regulations), Forestry Division (tree protection and replanting), and Plant Protection and Regulatory Services Division (PPRS for agrochemicals and pesticides regulation) and District Assemblies (Environmental Bye Laws), Lands Commission (land security of tenure); Ministry of Employment and labour (labour conditions, occupational health and safety including forced and child labour) and Chiefs for local dispute resolution mechanisms; and (xi) Screening of SIP beneficiaries before access to project finance.

3.2.1.6 In terms of institutional capacity, Ghana EPA is the regulatory authority on environmental management has adequate policies and regulations to ensure that the project is implemented in a sustainable manner. In addition, the EPA carries out monitoring of projects to enforce regulation and compliance with permit conditions including ESMP implementation using Regional Environmental Officers. The project will be implemented by MoFA using the existing SAPIP PCMU. The following regulations will ensure that the project will comply with national the project will ensure that institutional and technical capacity that currently exist within MoFA and SAPIP the Executing Agency is strengthened through engagement of a consultant to develop site specific ESMPs and work with farmers to get the required permits in collaboration with EPA. The project will also include training of Environmental Desk Officers at the local level to ensure effective development, implementation and monitoring/reporting of site specific ESMPs. The Environmental safeguard specialist at PCMU will be responsible for monitoring and reporting on ESMP implementation and compliance with applicable national regulations and AfDB requirement standards to the EPA and the Bank as part of the Project Progress Reporting.

3.2.2 Climate change

3.2.2.1 Ghanaian agriculture and food systems are climate dependent and recognized as one of the most vulnerable sectors to climate change. Indications are that the Northern Region of Ghana is currently experiencing variability in weather and rainfall patterns. Consultations with MoFA and EPA indicated that the region is susceptible to flooding and drought that are unpredictable. The current increase in rain intensity is aggravating flooding events causing riverbank erosion, saltwater intrusion, infrastructure damages, crop failure, fisheries destruction, and loss of biodiversity. This has significant implications on livelihoods of agricultural communities who are mostly dependent of rain fed agriculture. Recommendations were made to incorporate climate risk mitigation and management strategies in the project design.

3.2.2.2 The project will mainstream climate risk mitigation and adaptation activities in the project design and implementation that will focus on reducing the dependency on rainfall for agricultural activities as well as protect ecosystems at risk from other natural or anthropogenic hazards that accompany floods, drought and other land use changes. The Programme will explore climate change adaptation technologies for agriculture consistent with priorities established in Ghana's National Adaptation Programme for Action (NAPA), Climate Change Policy, and the MoFA's National Climate Smart Agriculture and Food Security Action Plan (2016-2020). This will ensure that the project facilitates and promotes greater resilience and adaptation to climate change by promoting climate smart agriculture through use of improved agriculture technologies and conservation agriculture.

3.2.3 Social Impact/Nutrition

According to the most recent data in the 2014 Ghana Demographic and Health Survey (DHS), the prevalence of stunting is significantly higher in the Northern Region, with 33% stunting in children under five as compared to the national prevalence of 19%. Also, the prevalence of anaemia in children under five is very high (82.1%). The Project will contribute to increased dietary diversity among households, and especially among women and children, through Social and Behaviour Change Communication (SBCC) interventions in the project area. The SBCC approach will be participatory and will focus on the improvement of maternal and young child nutrition through the promotion of the consumption of animal sourced foods, for which availability and access will be increased through the project. However, the SBCC approach will be integrated, including messaging related to hygiene, and promote use of health services, in particular antenatal care and reproductive health services. Special attention will be paid to adolescent girls, in order to prevent early pregnancy but also ensure access to health services for pregnant girls.

3.2.4 Gender Aspects

3.2.4.1 The project was designed in line with the Ghana's National Gender and Children Policy as well as AfDB's Jobs for Youth Strategy and the Gender Strategy. The gender analysis of the agriculture sector in the area revealed gender gaps along the value chain, with women on the disadvantaged side. Most of the gender gaps are outlined in access to land, inputs, technical skills, networks, agricultural services, markets and agricultural technologies. Women are engaged in planting, weeding, harvesting, processing and marketing of agricultural produce in the region. Women are involved in the agricultural processing and contribute at more than 70% of agriculture transformation.

3.2.4.2 To address the identified gender gaps, the specific activities and measures be put in place to uplift the conditions of women in the poultry value chain. These include: (i) establishment of an entrepreneurship training and mentorship Programme for females with anchor entrepreneurs in the poultry industry; (ii) organizing training for women farmers in the areas of improved production, business management, financial literacy, packaging, leadership and decision making; (iii) encouraging women's participation in groups; (iv) organizing sensitization campaigns for the men to support women's participation in the poultry value chain; and (v) strengthen the Ghana Women's Poultry Association to provide capacity building support to its members. The project will encourage financial service providers to develop innovative products for women, which recognize their needs in relation to collateral and repayment needs, suitable for specific needs of women actors at each level, enable savings, working capital and investments. The project will organize training for women in the areas of improved production, business management, financial literacy, packaging, leadership and decision making; good nutrition especially to pregnant women and under five-year children; and organise sensitizations on women's rights and access to land. Through the empowerment of women combined with the nutrition sensitization activities, the project will

contribute to improved health and nutrition outcomes among women of reproductive age and young children. The total budget allocated to gender equality promotion, promotion of youth employment and nutrition is around UA 1.5 million. The Project is assigned a Category II according to the Gender Marker System (GMS) of the bank because of the planned Outcome 1 on “Increased Incomes of Value Chain Actors and New Wage Jobs” which is targeting 50% women among the beneficiaries.

3.2.5 Involuntary Resettlement

There is no involuntary resettlement or land acquisition or any loss, by the population, of property, sources of income and livelihoods envisioned within the implementation of the Project activities. The project interventions will be implemented on existing agricultural systems but if any loss occurs it will be compensated based on AfDB requirements.

IV IMPLEMENTATION

4.1. *Implementation arrangements*

4.1.1 The Executing Agency for this operation will be the Ministry of Food and Agriculture. Given closer linkages of this project with the Savannah Zone Productivity Improvement Programme (SAPIP) financed by the Bank, the same Project Coordination and Management Unit of SAPIP will be used. In addition to the PCMU staff under SAPIP, the additional staff requirement will include: Investment Officer, Animal Production Specialist, Agricultural Engineer, Monitoring and Evaluation Specialist, Procurement Specialist and an Accounts Assistant. Staff of the PCMU staff will be assigned by MOFA or where necessary competitively recruited and to be based at Tamale. The existing project implementation unit is headed by a Project Coordinator who reports to the Chief Director. The Ministry had used similar arrangements to successfully implement Bank financed projects such as the Northern Rural Growth Programme (NRGP), Export Marketing and Quality Awareness Project (EMQAP), and Afram Plains District Agricultural Development Project (APPDADP). The Ministry is thus familiar with the Bank’s financial management rules, procurement requirements and disbursements procedures. Project management capacity was assessed to be satisfactory for project implementation. Relevant government agencies to be involved in project execution are presented in B.2 of Technical Annex.

4.1.2 A **National Project Steering Committee (NPSC)** is already established under SAPIP to provide strategic policy direction and oversight guidance for the project implementation. The core activities shall continue to include implementation of Programme strategy, oversee planning, review progress and impact, review/approval of annual work plans and budget, annual procurement plans, as well as ensuring effective linkages with related Programmes in the agriculture sector. The NPSC membership includes: Minister’s representative; Director, Policy Planning Monitoring and Evaluation Directorate; Director, Animal Production Directorate; Director, Veterinary Services Directorate; Representative of Ministry of Finance; Representative of Northern Development Authority; Regional Director of Agriculture; Regional Veterinary Officer; Regional Animal Production Officer; Livestock Farmer; Poultry Farmer; Livestock Agribusiness Representative; Representative of Ministry of Health; Agricultural Engineer; and Project Coordinator as Secretary. The NPSC would meet at least twice a year. Costs related to the meetings of the NPSC will be financed by operational resources under the ADF loan.

Procurement arrangements

4.1.3 “Procurement of goods, works and the acquisition of consulting services (including non-consultancy services), financed by the Bank for the project, will be carried out in accordance with the “Procurement Policy and Methodology for Bank Group Funded Operations” (BPM), dated October 2015 and following the provisions stated in the Financing Agreement; specifically, procurement would be carried out as follows:

4.1.4 Borrower Procurement System (BPS): Procurement through Open Competitive Bidding National (OCBN) procedures will be carried out using BPS comprising its Laws and Regulations (Ghana Public Procurement Act, 2003 (Act 663), as amended by Ghana Public Procurement Act, 2016 (Act 914) using the National Standard Solicitation Documents (NSSDs) agreed during project negotiations for various project components detailed in annex B5.1 and the provisions stipulated in the Financing Agreement.

4.1.5 Bank Procurement Policy and Methodology (BPM): Bank standard PMPs, using the relevant Bank Standard Solicitation Documents (SDDs) will be used for Open Competitive Bidding International (OCBI) contracts for both Goods and Works and Acquisition of Consulting Services as indicated in the Technical Annex B5, Para. B.5.3.2.

4.1.6 **Services to be benefitted from public entities through Agreements:** There are services needed under the project that can be directly provided by public entities (that have this mandate and are competent for) instead of procuring. To that extent, a Memorandum of Understanding (MoU) or an Implementation agreement (IA) will be signed with these entities using their own resources. The MoU or IA will not allow Staff salaries payment but will cover only direct actual additional costs generated by the assignment.

4.1.7 Procurement Risks and Capacity Assessment (PRCA): 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 the implementation of the project. This output informed the decisions on the procurement regimes (BPS and Banks PMP) being used under the project. The appropriate risk mitigation measures have been included in the procurement PRCA action plan proposed in Annex B5, Para. 5.3.8. The project activities derived from these components have informed the procurement risk and capacity assessment as well as the market analysis based on which the procurement strategy of the project has been developed. In addition, some of the identified activities will require that MoUs or implementation agreements are adopted to engage the services of some of the project partners including research institutions, agricultural mechanisation services centres, various directorates under MoFA. The details of these arrangements are clearly defined in the Technical Annex B5, Para. B.6.3.

Financial management and disbursement arrangements

4.1.8 The Executing Agency for this operation will be the Ministry of Food and Agriculture. Given the close linkages of this project with the Savannah Zone Productivity Improvement Programme (SAPIP) financed by the Bank, the same Implementing Agency will be used. Both the Executing and Implementing Agencies are familiar with the Bank’s financial management rules, procurement requirements and disbursements procedures. MOFA is already connected to the government integrated financial information management system (GIFMIS), although the system is yet to be fully deployed for all projects. Thus, until GIFMIS is fully deployed, SIP will use the Sun Accounting software used by the SAPIP PCMU for financial accounting and reporting and migrate to the GIFMIS when the system is functional for projects at a later stage.

4.1.9 The Project Accountant will report to the Financial Controller who in turn reports to the Finance Director of MOFA, this ensures that the project financial statements are correctly included in the overall consolidated accounts of the Ministry. The Project Accountant will produce quarterly unaudited interim financial reports (IFRs) and annual financial reports in accordance with IPSAS Cash Basis, using the Sun Accounting software. The IFRs must be submitted to the Bank within 45 days after the end of the quarter reported on, while the annual audited financial reports must be submitted not later than six (6) months after the end of the applicable financial year. MOFA internal control systems, including the internal audit function, which appears adequate and operating effectively, shall be extended to the cover project operations. The Project Implementation Manual (PIM) consisting of the Technical Implementation, FM procedures and Administrative procedures components developed for SAPIP, will be updated with peculiar aspects of the SIP, to guide project implementation, streamline FM practices and administrative procedures. Previous audits of MOFA managed Bank financed projects were generally satisfactory and transmitted to the Bank on a timely basis.

4.1.10 **Disbursement:** Two (2) of the Bank's four disbursement methods are recommended for disbursing funds to the project namely, Direct Payments and Special Account (SA) methods. The direct payments method will generally be used for large contracts signed between project management and contractors/suppliers/ service providers. The SA will be used for meeting Programme's recurrent/ administrative expenses and smaller contracts. A dedicated US Dollar denominated SA (with the approval of the Minister of Finance), will be opened at the Bank of Ghana (BoG), to receive the ADF resources for this purpose from the Bank. A GHS (local currency) account will also be opened at BoG to receive transfers from the SA for making payments in Ghana Cedis. A separate GHS account will be opened at the BoG to receive counterpart cash contributions from the Government of Ghana and other receipts including sale of bid documents if applicable.

4.1.11 A second dedicated SA will be opened by the Ministry of Finance and BoG, Financial Market Department - Projects Unit to support Component 1 of the Programme relating to Access to Agriculture Finance, which seeks to address the Missing Middle Finance Vehicle (MMFV) and the Poultry Revolving Fund (PRF). Disbursement of ADF resources from the Bank to the BoG under this component will be in tranches, based on the needs of value chain actors accessing financing. The first tranche of the MMFV will be disbursed after the opening of the SA and fulfilling the following: (i) Signed Management Agreement between BoG, MOF and MOFA; (ii) Signed Bank Loan Agreements between BoG and Participating Financial Institutions (PFIs), which will be selected using a competitive process acceptable to the Bank; (iii) Implementation team identified by the PFIs; and (iv) Standard Operations Procedures (SOPs) finalised for implementation. The MMFV and Poultry Revolving fund resources will be disbursed to the same account with the Bank of Ghana by the Bank. All project accounts will be managed by the PCMU. All disbursements under the project will follow the disbursements procedures outlined in the *Bank's Disbursement Handbook*.

4.1.12 **Audit:** The Ghana Audit Service (GAS) is constitutionally mandated to audit all government funds including externally funded projects. Due to capacity constraints, the audit of donor funded projects may be outsourced to private independent audit firms approved by the Auditor General (AG) with the AG maintaining an overall responsibility for the audit. The audit will be conducted on terms of reference acceptable to the Bank and audit reports (consisting of the audited financial statements and accompanying management letter) shall be submitted to the Bank no later than six months after the end of the year audited. The GAS has indicated that it is increasing its scope on directly auditing Government project and may directly audit this proposed Programme in the future. The audit arrangements will be confirmed during implementation.

4.1.13 **Overall Conclusion:** The overall FM risk is assessed as Moderate. To mitigate the risk further, MOFA is expected to hire an additional Accounts Assistant for the project; review the SAPIP PIM to ensure that the technical, financial management and administrative procedures components are updated with the specific requirements of SIP; procure additional user rights for

the existing Sun Systems accounting software for use by the project; finalize the Management Agreement, Bank Loan Agreement; and preparation of Standard Operations Procedures (SOPs) for the MMFV and Revolving Fund.

4.2 Monitoring

4.2.1 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, other relevant stakeholders. A mid-term review (MTR) will be undertaken after two years of project implementation. Similarly, upon completion of project investments at the end of Programme year five, the PCMU will prepare a Borrower's project completion report.

4.2.2 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 manages 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 provide assistance to SIP in ensuring the collection and processing of good quality data, monitoring and reporting. The PCMU will have an additional M&E Officer to ensure quality and accountability of monitoring; information management; facilitation of knowledge building; and knowledge sharing on monitoring and evaluation.

4.3. Governance

4.3.1 Ghana has consistently maintained a higher governance score than the African and West African averages in the Country Policy and Institutional Assessment (CPIA). The 2019 Freedom House Index ranked Ghana, with a score of 83 out of 100 points, as the third freest country in Africa. The Global Competitiveness Report 2018/2019 indicated that Ghana scored an all-time high of 51.33 points out of 100, with an improvement in the rank of Ghana's institutions to 59th from 111th in 2018/19. However, the well-functioning legal and judicial institutions face many enforcement and logistical challenges. Efficiency of public service delivery is threatened by high perceptions of corruption in the public sector.

4.3.2 Based on Bank's experience in implementing projects in Ghana, the existing governance practices and controls have been assessed to be satisfactory. At sector level, the governance structure is aimed at ensuring responsiveness, transparency, accountability and efficiency in the use of resources. The institutional arrangements designed under this project is to ensure good governance at national, regional and district levels. The provision of project steering committee, internal control and audit arrangements are in line with key policies in the agriculture sector.

4.4. Sustainability

The design of this Programme was done in close collaboration with a Team of Experts constituted to implement the Rearing for Food and Jobs Programme. The design and proposed implementation arrangements allow the Programme to be embedded in the RfJ Programme with mutually reinforcing activities, for sustainability of interventions. Activities are to be implemented using existing Government implementation modalities. Adoption of private sector approach and the creation of financing vehicles is to ensure that beneficiaries have access to agriculture finance after project intervention. The Programme plans to build capacities of value chain actors, introduce and enforce contracting arrangements with out-growers to ensure that off-taker markets are viable and outlives the project lifespan.

4.5 Risk management

A number of risks and mitigation measures have been identified during preparation and appraisal missions. Key among them is adequate policy and regulatory measures to deal with the cheap import of poultry products into Ghana. The Bank Group will engage in constant policy dialogue to ensure that the policy, institutional and funding are made available to address this major risk. Furthermore, risks related to environmental related issues are mitigated through the formulation and implementation of an ESMP, with adequate budgetary provisions. The following are the main risks identified and with mitigation measures.

No	Risk	Mitigation Measures
1	Ineffective policies allowing increased importation of cheap poultry products	The Bank to intensify dialogue with Government and support policy measures to reduce importation and increased quota for local production of poultry. Support to poultry industry advocacy
2	Unwillingness of FIs to offer term loans to agri-businesses, high interest rate, high default rate	linking FIs to GIRSAL and putting in place mechanisms for periodic monitoring and flexible repayment schedule. Building capacities of participating FIs to develop agro-financial products to address the need of investors
3	High cost of mechanisation services would restrict the use of machinery and equipment for upscale production of maize and soybean. Inadequate skill in operating machinery and delays in servicing to maintain machinery	Mechanisation-service providers will be incentivised by the government to render cost-effective services to farmers Train operators in the right use/handling of machinery
4	The proposed project area is prone to extreme weather resulting from climate change impacts Lack of technical expertise by the private sector seed producers in the production of foundation seed and inadequate technical know-how of actors along the seed value chain	ESMPs will incorporate integrated pest management plans and climate risk mitigation and adaptation measures. No till practises have been demonstrated to mitigate against drought. Drought tolerant varieties of maize and soybean to be promoted.

4.6 Knowledge Building

The Bank's results-based management system is adopted for this project. Knowledge will be generated through the establishment of a results-based Monitoring and Evaluation (M&E) system by the project which will be linked to the National M&E System in the Ministry of Food and Agriculture. 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 ICT infrastructure (Intranet, short documentaries on Bank website, etc.).

V LEGAL INSTRUMENTS AND AUTHORITY

5.1. *Legal instrument*

The legal instruments to finance this operation is an ADF loan agreement for UA 20.0 million between the Republic of Ghana and the Bank.

5.2. *Conditions associated with Bank Group intervention*

Entry into Force of the Loan Agreement

The entry into force of the Loan Agreement shall be subject to the fulfilment by the Borrower of the provisions of Section 12.01 of the General Conditions of the Bank applicable to Loans/Grants Agreements and Guarantee Agreements.

A. Conditions precedent to first disbursement

The obligations of the Bank to make the first disbursement of the loan shall be conditional upon the entry into force of the Agreement and the fulfillment by the Borrower, in form and substance satisfactory to the Bank, of the following condition:

- (i) Provide evidence satisfactory to the Fund that it has opened a foreign currency Special Account (SA) and a local currency account (LCA) with bank acceptable to the Fund.
- (ii) The submission of evidence of the recruitment or secondment of additional staff for the project coordination and management unit (PCMU), with qualifications and terms of reference acceptable to the Fund, as follows: (i) an investment officer; (ii) an animal production specialist; (iii) an agricultural engineer; (iv) a monitoring and evaluation specialist; (v) a procurement specialist; and (vi) an accounts assistant.

Other Conditions:

The Borrower shall, in form and substance satisfactory to the Bank, fulfil the following conditions:

- (iii) Not later than six months from the date of loan effectiveness, submit a project operational manual (POM) acceptable to the Bank;
- (iv) Prior to Loan disbursement to the second special account supporting Component 1 of the Project, the opening of the Missing Middle Financing Vehicle (MMFV) account at the Bank of Ghana after fulfilling the following: (i) signing of a management agreement between the Bank of Ghana (BoG), the Ministry of Finance and Ministry of Food and Agriculture; (ii) signing of loan agreements between the BoG and participating financial institutions (PFIs); (iii) identification of the implementation team by the PFIs; and (iv) development and completion of standard operations procedures (SOPs).

Undertakings

The Borrower shall, and shall cause the Executing Agency, all its contractors, sub-contractors and agents to: in form and substance satisfactory to the Bank:

- (v) carry out the Project in accordance with the site-specific Environmental and Social Management Plans (“ESMPs”), and the Fund’s Safeguards Policies and the applicable national legislation in a manner and in substance satisfactory to the Fund;
- (vi) prepare and submit to the Fund, as part of the Project Report in Section 7.01 (Project Report) of this Agreement, quarterly reports on the implementation of the site-specific ESMPs including any deficiencies identified and the corrective measures thereto; and
- (vii) 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 voidance

of any provision thereof, whether in whole or in part, without the prior written concurrence of the Fund.

- (viii) The Borrower shall make available and on time relevant counterpart contributions for Project implementation.
- (ix) To submit to the Fund updated lists of PFIs which would from time to time sign bank loan agreements with the BoG.
- (x) To take all appropriate measures and actions necessary to ensure that the Loan proceeds shall not be used to guarantee or otherwise finance any of the activities under the Bank Group's Negative List.
- (xi) To take all appropriate measures and actions necessary to ensure that the Loan proceeds shall, not be used to guarantee banks, financial institutions or other, or otherwise to finance activities involving predatory lending or other forms of financial exploitation.
- (xii) To take all appropriate measures and actions necessary to ensure that the Loan proceeds would not be used to guarantee loans or portfolios of loans contracted prior to signature of the Loan Agreement between the Fund and the Borrower.
- (xiii) To take all appropriate measures and actions necessary to ensure that the Loan proceeds are used to finance PFIs pursuant to sound banking principles, including but not limited to the ability of their borrowers to repay their loans.

5.3. *Compliance with Bank Policies*

- This Project complies with all applicable Bank policies.

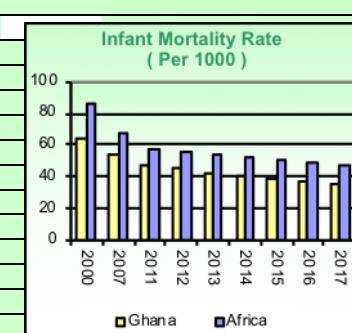
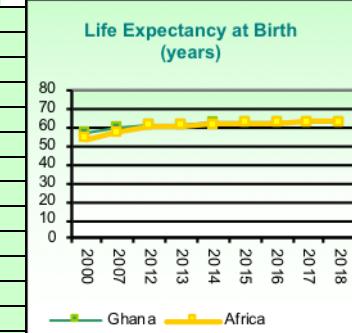
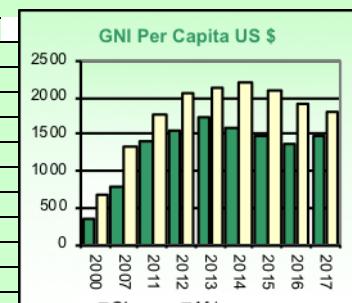
VI – RECOMMENDATION

Management recommends that the Board of Directors approve an ADF loan of UA20.0 million to the Republic of Ghana for the purposes of the activities in the proposed project and subject to the conditions stipulated in the present report.

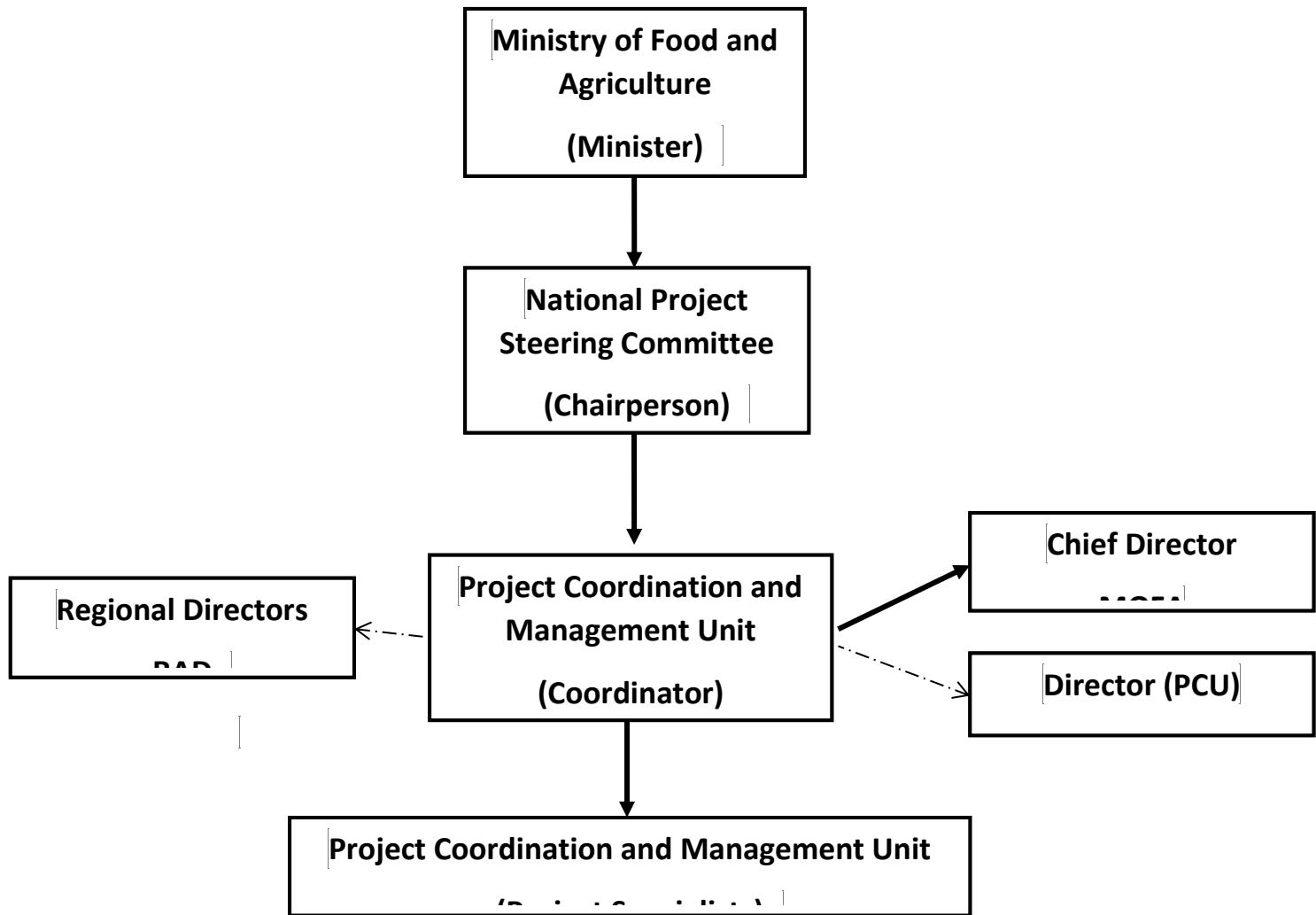
ANNEXES

ANNEX I: COUNTRY COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Ghana	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km ²)	2018	239	30,067	92,017	40,008
Total Population (millions)	2018	29.5	1,286.2	6,432.7	1,197.2
Urban Population (% of Total)	2018	56.1	42.5	50.4	81.5
Population Density (per Km ²)	2018	128.7	43.8	71.9	31.6
GNI per Capita (US \$)	2017	1 880	1 767	4 456	40 142
Labor Force Participation *- Total (%)	2018	77.1	65.9	62.1	60.1
Labor Force Participation **- Female (%)	2018	75.6	55.5	47.6	52.2
Sex Ratio (per 100 female)	2018	99.4	99.8	102.3	99.3
Human Develop. Index (Rank among 189 countries)	2017	140
Popul. Living Below \$ 1.90 a Day (% of Population)	2007-	12.0	...	11.9	0.7
Demographic Indicators					
Population Growth Rate - Total (%)	2018	2.2	2.5	1.2	0.5
Population Growth Rate - Urban (%)	2018	3.4	3.6	2.3	0.7
Population < 15 years (%)	2018	38.3	40.6	27.5	16.5
Population 15-24 years (%)	2018	19.4	19.2	16.3	11.7
Population >= 65 years (%)	2018	3.4	3.5	7.2	18.0
Dependency Ratio (%)	2018	72.0	79.2	53.2	52.8
Female Population 15-49 years (% of total population)	2018	25.3	24.1	25.4	22.2
Life Expectancy at Birth - Total (years)	2018	63.3	63.1	67.1	81.3
Life Expectancy at Birth - Female (years)	2018	64.4	64.9	69.2	83.8
Crude Birth Rate (per 1,000)	2018	30.0	33.4	26.4	10.9
Crude Death Rate (per 1,000)	2018	7.8	8.3	7.7	8.8
Infant Mortality Rate (per 1,000)	2017	35.7	47.7	32.0	4.6
Child Mortality Rate (per 1,000)	2017	49.3	68.6	42.8	5.4
Total Fertility Rate (per woman)	2018	3.9	4.4	3.5	1.7
Maternal Mortality Rate (per 100,000)	2015	319.0	444.1	237.0	10.0
Women Using Contraception (%)	2018	31.2	38.3	61.8	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2010-	9.6	33.6	117.8	300.8
Nurses and midwives (per 100,000 people)	2010-	92.6	123.3	232.6	868.4
Births attended by Trained Health Personnel (%)	2010-	70.8	61.7	78.3	99.0
Access to Safe Water (% of Population)	2015	88.7	71.6	89.4	99.5
Access to Sanitation (% of Population)	2015	14.9	39.4	61.5	99.4
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2017	1.7	3.4	1.1	...
Incidence of Tuberculosis (per 100,000)	2016	156.0	221.7	163.0	12.0
Child Immunization Against Tuberculosis (%)	2017	99.0	82.1	84.9	95.8
Child Immunization Against Measles (%)	2017	95.0	74.4	84.0	93.7
Underweight Children (% of children under 5 years)	2010-	11.0	17.5	15.0	0.9
Prevalence of stunting	2010-	18.8	34.0	24.6	2.5
Prevalence of undernourishment (% of pop.)	2016	6.1	18.5	12.4	2.7
Public Expenditure on Health (as % of GDP)	2014	2.1	2.6	3.0	7.7
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010-	104.8	99.5	102.8	102.6
Primary School - Female	2010-	105.5	97.4	102.0	102.5
Secondary School - Total	2010-	70.0	51.9	59.5	108.5
Secondary School - Female	2010-	69.0	49.5	57.9	108.3
Primary School Female Teaching Staff (% of Total)	2010-	39.7	48.7	53.0	81.5
Adult literacy Rate - Total (%)	2010-	71.5	65.5	73.1	...
Adult literacy Rate - Male (%)	2010-	78.3	77.0	79.1	...
Adult literacy Rate - Female (%)	2010-	65.3	62.6	67.2	...
Percentage of GDP Spent on Education	2010-	6.2	4.9	4.1	5.2
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2016	20.7	8.0	11.3	10.4
Agricultural Land (as % of land area)	2016	69.0	38.2	37.8	36.5
Forest (As % of Land Area)	2016	41.2	22.0	32.6	27.6
Per Capita CO2 Emissions (metric tons)	2014	0.5	1.1	3.5	11.0



ANNEX II: ORGANIZATIONAL STRUCTURE FOR PROJECT IMPLEMENTATION



ANNEX III: GHANA PORTFOLIO AS AT APRIL 2019

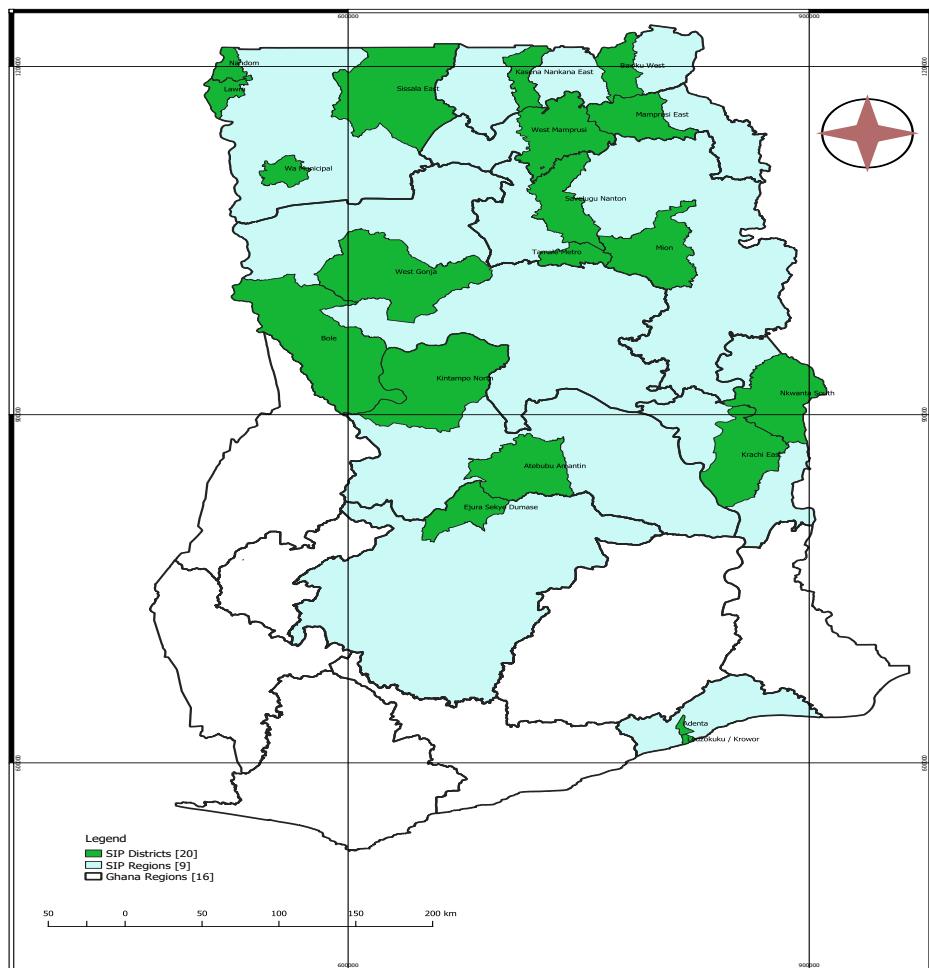
No.	Project Long Name	Loan/Grant Amount	Date of Approval	Date of Signature	Amount Disbursed (UAM)	Disbursed as at March 19, 2019 (%)	Closing Date	Status
POWER		49,550,000			13,271,293			
1	ELECTRICITY DISTRIBUTION SYSTEM REINFORCEMENT LOAN	28,600,000	26-02-2014	07-04-2015	10,599,017	37.1	30.10.2019	Non PPP
		GRANT	19,860,000	26-02-2014	07-04-2015	2,108,675	10.6	30.10.2019
2	RENEW. MINI-GRIDS & SOLAR STAND ALONE SYS*USD899,800	650,000	4/6/2015	14-12-2016	346,871.43	53.4	30.06.2019	Non PPP
3	NET METERED SOLAR PV FOR SMES & LIGHTING- USD610,500	440,000	4/6/2015	14-12-2016	216,729	49.3	30.06.2019	Non PPP
AGRICULTURE		102,455,781			25,557,783			
4	RURAL ENTERPRISE PROJECT III LOAN	26,690,000	19-12-2012	15-11-2013	8,179,268	30.6	30-09-2020	Non PPP
		GRANT	23,000,000	19-12-2012	15-11-2013	8,996,582	39.1	30-09-2020
5	FOREST INVESTMENT PROGRAMME/ELCRD LOAN	3,200,000	22-01-2014	26-07-2014	1,854,420	58.0	31.12.2019	Non PPP
		GRANT	6,701,031	22-01-2014	26-07-2014	5,097,938	76.1	31.12.2019
6	SAVANNAH AGRIC. PRODUCTIVITY IMPRVMNT PROJECT	27,864,750	15-12-2017	15-03-2018	1,429,573	5.1	31-03-2023	Non PPP
7	GHANA INCENTIVE - BASED RISK SHARING FOR AGRICULTURE LENDING	10,000,000	26-9-2018			0.0		Non PPP
8	*GHANA COCOA SECTOR INSTITUTIONAL SUPPORT PROJECT	5,000,000	11-12-2018			0.0		Non PPP
TRANSPORT		60,000,000			14,307,643			
9	ACCRA URBAN TRANSPORT PROJECT	60,000,000	28-09-2016	16-11-2016	14,307,643	23.8	30.06.2021	Non PPP
SOCIAL		70,000,000			56,759,476			
10	DEVELOPMENT OF SKILLS FOR INDUSTRY LOAN	45,000,000	20-06-2012	11-07-2012	41,842,358	93.0	30-06-2019	Non PPP
		GRANT	25,000,000	20-06-2012	11-07-2012	14,917,118	59.7	30-06-2019
WATER/SANITATION		35,950,000			556,059			
11	G/A SUSTAIN. SAN. & LIVELIHOOD IMPRV PROJECT	35,950,000	29-03-2017	19-09-2017	556,059	1.51	31.03.2022	
MULTINATIONAL		1,133,065			686,702			
12	**SOGAKOPE-LOME WATER -Euro1,405,000 (MULTINATIONAL)	1,133,065	18-12-2013	27-11-2014	686,702	60.6	28-02-2019	Non PP
PRIVATE		287,477,143			136,907,857			
POWER								
13	TAKORADI II EXP. POWER PROJECT (TICO)	15,300,000	11/7/2012	25-07-2012	15,300,000	100	15.03.2016	Non PPP
AGRICULTURE		102,455,781			25,403,206			
14	FORM - GHANA (USD10M) FORM - GHANA (USD14M)	7,142,857	22-09-2016	07-03-2017	7,142,857	100	7.03.2024	Non PPP
		10,000,000	13-07-2016	07-03-2017	6,895,000	69	07.03.2024	Non PPP
15	*COCOBOD *COCOBOD	72,100,000	27-11-2018			0		Non PPP
		36,100,000	27-11-2018			0		Non PPP
TRANSPORT								
16	GHANA AIRPORTS (USD120M)	85,714,286	30-09-2015	15-12-2016	85,714,286	100	31-12-2018	Non PPP
FINANCIAL								
17	UNIBANK TFLOC (USD15M)	10,300,000	14-10-2015	14-07-2016	10,300,000	100	22-03-2017	Non PPP
18	*CAL BANK (USD40M)	28,500,000	9/7/2018					Non PPP
19	*GHL BANK PLC	10,700,000	6/6/2018					Non PPP
20	GHANA MSME/INVEST IN AFRICA (USD1M) (Trust Fund)	714,286	27-04-2014	26-11-2014	443,848.83	62.14	31.12.2019	Non PPP
MULTISECTOR								
21	KEMPINSKI ACCRA HOTEL	11,620,000	27-09-2010	19-10-2010	11,620,000	100	29.06.2012	Non PPP
GRAND TOTAL		607,280,275			248,046,813			

*APPROVED BUT NOT SIGNED

**PROJECTS NOT LISTED IN THE PORTFOLIO FLASHLIGHT

ANNEX IV: MAP OF PROJECT AREAS

SIP OPERATIONAL DISTRICTS-GHANA



ANNEX V: DETAILED PROJECT COST TABLE

		ADF	Gov/Beneficiary	TOTAL
A.	WORKS AND REHABILITATION		('UA 1000)	
A1	Land development	1,649.96	2,544.14	4,194.10
A2	Rehabilitation of Kpong & Tamale laboratories	515.14		515.14
A3	Rehabilitation of animal housing at the breeding stations	617.65		617.65
A4	Rehabilitation of Quarantine stations	238.61		238.61
A5	Promotion of improved poultry housing	303.15		303.15
A6	Poultry processing unit	345.98		345.98
A7	Meat residue laboratory	171.71	257.57	429.28
B.	GOODS			
B1	IT Equipment and Furniture	21.86		21.86
B2	Soil testing equipment	88.92		88.92
B3	Vehicle	262.17		262.17
B4	Mechanization equipment	344.58	344.58	689.15
B5	GIS equipment	103.74		103.74
B6	Laboratory equipment	371.42		371.42
B7	breed improvement of local poultry	500.19	500.19	1,000.38
B8	Guinea kits	128.38	260.66	389.04
B9	Sheep and goat	1,396.83		1,396.83
B10	Diagnostic kits & reagents	229.03		229.03
C.	SERVICES			
C1	Seed production	489.00	413.77	902.77
C2	Nitrogen fixing inoculants	111.99		111.99
C3	Support out-grower contractual arrangements	112.85		112.85
C4	Capacity building of producers	788.24		788.24
C5	Conduct surveillance and collect data on pests	176.53		176.53
C6	Training, Sensitization, Workshops	1,685.71		1,685.71
C7	poultry diseases surveillance, diagnosis and control	150.46		150.46
C8	Vaccine production	692.12		692.12
C9	improved pasture development and management	173.03		173.03
C10	Installation of traceability system and GIS mapping	109.08		109.08
C11	Development of market information system	223.97		223.97
C12	Environmental and Social Management Plan (ESMP)	263.31		263.31
C13	Ghana Livestock Development Policy	146.01		146.01
C14	Annual External Audit	72.46		72.46
C15	Mid-Term Review/ PCR	28.99		28.99
C16	Beneficiary Impact Assessment	28.99		28.99
C17	Communication products	36.23		36.23
C18	Other contractual services	2,044.81	77.81	2,122.62
C19	Review of Food and Agriculture Sector Development Policy III	146.01		146.01
C20	Project staff	641.74		641.74
D.	D. MISCELLANEOUS			
D1	Credit facility	4,347.83		4,347.83
D2	E. OPERATING COSTS	242.90	598.73	841.63
TOTAL		20,001.60	4,997.44	24,999.04

ANNEX VI: MAJOR INTERVENTIONS IN THE AGRICULTURE SECTOR

PROJECT TITLE	FUNDING AGENCY	PROJECT DURATION	TOTAL PROJECT COST
Savanna Agricultural Productivity Investment Programme (SAPIP)	African Development Bank	2018 - 2023	Loan- \$56.52 million
Ghana Commercial Agriculture Project	World Bank	2013 - 2020	Loan- \$150m Grant- \$16.9m
Outgrower Value Chain Fund (Phase 1)	KfW	2011 - 2015	Loan- 10m Euros Grant- 1m Euros
Outgrower Value Chain Fund (Phase 2)	KfW	2015 - 2019	Loan- 21m Euros Grant- 1m Euros
Ghana Agriculture Sector Investment Programmemme	IFAD	2015 - 2021	Loan- \$103m Grant- \$10 million
Productive investment for agriculture in Savannah ecological zones	European Union	2017 – 2025	Grant – 147 m Euros
Modernizing Agriculture in Ghana (MAG)	Global Affairs Canada	2017 - 2022	Grant – CAD 125m