

Additional Financing Appraisal Environmental and Social Review Summary Appraisal Stage (AF ESRS Appraisal Stage)

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I. BASIC INFORMATION

A. Basic Project Data

Country	Region	Borrower(s)	Implementing Agency(ies)
Western and Central Africa	WESTERN AND CENTRAL AFRICA		
Project ID	Project Name		
P181488	Additional Financing To The Food System Resilience Program, Phase 2 Ghana		
Parent Project ID (if any)	Parent Project Name		
3.1.97			
P178132	West Africa Food System Re	esilience Program (FSRP) Phase 2	
	West Africa Food System Re	esilience Program (FSRP) Phase 2 Estimated Appraisal Date	Estimated Board Date
P178132			Estimated Board Date 3/15/2024
P178132 Practice Area (Lead)	Financing Instrument Investment Project	Estimated Appraisal Date	

Proposed Development Objective

To increase preparedness against food insecurity and improve the resilience of food systems in participating countries.

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project Activities

The Government of Ghana has in the past supported farmers primarily through the provision of inputs subsidies. This was achieved through programs such as the government's Fertilizer Subsidy Program (FSP, 2008-2017), Planting for Food and Jobs (PFJ, 2017-2022), and the Ghana COVID-19 Alleviation and Revitalization of Enterprise Support (Ghana CARES). Subsidies provided by the PFJ program put the Government under a heavy fiscal burden. Excluding project-related expenditures, the cost of these subsidies represented half (51%) of expenditures of the Ministry of Food and



Agriculture (MoFA). The PFJ has been linked to higher crop yields, but its implementation had some limitations such as high budget strain on the government, non-adoption of the value chain approach, limited access to agricultural credit, low prioritization of national strategic stock and limited focus on the needs of commercial small, medium, and large-scale farmers.

Acknowledging the achievements and shortcomings of the PFJ implementation, the Government of Ghana in 2023 introduced the Planting for Food and Jobs program 2.0 (PFJ 2.0) which now shifts from a model of direct input subsidy to a smart agricultural input -credit system, linked to structured market arrangements. Under this Additional Financing (AF), the World Bank will support key areas of the PFJ 2.0 program, based on their importance in the country's policy priorities and their alignment with the repurposing agenda. These areas include the transformation of the tomato industry and the design and development of Ghana's Agriculture and Agribusiness Platform (GhAAP).

The proposed Additional Financing will not affect the PDO or project components but rather add activities to components that are well aligned. The proposed AF will finance activities under components 1, 2, and 5, as described below.

Component 1. Digital advisory services for agriculture and food crisis prevention and management (US\$ 12 million AF).

Sub-component 1.2: Strengthening Digital Hydromet and Agro-Advisory Services for Agriculture Producers, of the parent project, provide resources for (a) Improve the production of climate, hydromet, agromet, and impact-based information; (b) Support the timely delivery and use of essential agro-hydro-met information to key users; (c) Strengthen the institutional and financial sustainability of national institutions providing climate, hydromet, and agromet information. The proposal is to add two new activities to Sub-component 1.2 in support of the GhAAP; farmer registration and equipping the Network Operating Center (NOC) to run the digital platform. With GoG resources, MOFA has financed the development of some modules of the GhAAP platform. These include modules on farmer, aggregator, agro-input dealer, mechanization service provider. Activities to be financed with the AF include: (i) farmer registration (US\$ 7.5 million), including the purchase of laptops for 261 District Departments and 16 Regional Departments and 50 District Extension Officers (DEOs), and 3,000 tablets for Agriculture Extension Agents (AEAs) and incentive payments to AEAs for farmer field registration; and (ii) developing of a NOC for the GhAAP (US\$ 4.5 million), including procurement of both hard and software infrastructure for the NOC, documentation for NOC , monitoring and management tools, revamping IT unit, specialized trainings for MoFA IT (NOC) staff to enhance their skills in proactive monitoring, incident management, and emerging network technologies, collaboration, and knowledge sharing.

Component 2. Sustainability and adaptive capacity of the food system's productive base (US\$ 1.97 million AF).

Under Sub-component 2.1, Consolidate the Regional Agriculture Innovation Systems the parent project investments are for (a) Strengthen the national and regional agriculture research centers; (b) Deepening and expanding R&D networking; (c) Modernize national extension services; (d) Promote technology access and exchange. The proposal under the AF is to support a pilot on strengthening research and development (R&D), farm productivity and value addition in the tomato sector. The activities to be financed include: (i) conducting adaptive trials in Northern zone in



order to evaluate new hybrid varieties ("ante dede", tomato queen and "legon tomato") tested in the coastal zone; (ii) multiplying local Open Pollinated Varieties (OPVs, namely "KOPIA" and Kwabena Kwabena") and new hybrid varieties following successful adaptive trials; and (iii) conducting sensitization, training, and creating awareness of FBOs, input dealers, aggregators and marketers on improved characteristics of new varieties. In terms of farm productivity, activities to be financed include: (iv) providing input support to targeted tomato producers; and (v) strengthening extension services in targeted areas. In terms of value addition, activities to be financed include: (vi) providing small grants to tomato value chain actors in storage, processing, transportation, and marketing to support the acquisition of simple work equipment. The pilot will focus on the Northern Zones (Upper East, Northeast and Northern regions) where food and nutrition security, and climate resilience are priorities. It will impact 1,500 tomato producers on 500 hectares.

Component 5. Project Management (US\$1.8 million AF).

Under this component, the AF will provide resources to supervise additional activities proposed and strengthen MoFA's institutional capacity to run the PFJ 2.0 implementation model. Activities to be financed include: (i) setting-up a functional PFJ 2.0 unit in MoFA and (ii) operational costs of the FSRP PIU This will include: (i) building capacity of MOFA on legal and regulatory aspects related to PFJ 2.0; (ii) developing of Policy and Procedures manual to govern the operations of the Inputs Credit System; (iii) conducting feasibility study for establishment of Credit/Payment Guarantee Fund to support the program; (iv) establishing a Produce Pricing Mechanism, i.e., undertaking study and stakeholder engagement to establish market-based forward pricing mechanism for valuation of produce (commodities) for the in-kind repayment of input credit.

D. Environmental and Social Overview

D.1 Overview of Environmental and Social Project Settings

The proposed interventions under component 1 will be implemented nationwide while those under component 2 will be implemented in the northern zones of Ghana comprising the Upper East, North-East and Northern regions. Ghana is vulnerable to climate change and the selected regions of the northern zone are particularly prone to drought and bush fires during the dry season from mid-November to March. Women are acutely more vulnerable to the impacts of climate change because it exacerbates the existing outcomes of entrenched gender inequality and poses unique threats to their lives and livelihoods. Agriculture remains the main source of work for women especially in the north, and the increased frequency and intensity of climate-related shocks pose significant challenges to household food security and livelihoods. The northern zone usually experiences unimodal rainfall from April to October and during this period, some areas become inundated with restricted access to farmlands and other services. This situation is further exacerbated by the annual spilling of the Bagre Dam in Burkina Faso which causes havoc including destruction of farmlands, livestock, shelter, loss of livelihood etc. to downstream communities in the northern zone of Ghana. Vegetation in the northern zone is predominately grassland and savannah with varying plant species including drought-resistant trees such as baobabs, acacias, shea trees and neem trees. The shea tree, for example, is listed as



vulnerable on the IUCN red list which calls for due diligence to avoid adverse impacts on the tree species. These plants significantly contribute to the sustenance of livelihood among the communities as they depend on the fruits and leaves for food, cosmetic and medicinal purposes. In Ghana, agriculture through expansion and opening of new fields significantly contribute to deforestation and forest degradation. Within the northern zone, transhumance is a major security risk as there have been instances of conflicts between farmers and herdsmen. Although the law protects women's property rights in Ghana, their customary rights to own and use property including farmlands are insecure, especially in the northern regions due to social norms as evidenced by the fact that men hold 3.2 times more of the total farms despite women producing about 70% of the country's subsistence crops according to a 2019 UNDP report. The proposed operation could contribute to increasing women's access to and use of farmlands, credit, extension services, markets, networks, etc. to improve productivity and income and promote their economic growth in the project area.

D.2 Overview of Borrower's Institutional Capacity for Managing Environmental and Social Risks and Impacts

The proposed Additional Financing (AF) will be implemented as part of the parent project and therefore the same ministry (Ministry of Food and Agriculture – MOFA) and the same Project Implementation Unit (PIU) will be responsible for the proposed AF activities. The E&S performance of the parent project is currently rated satisfactory for Ghana. The PIU currently includes one seasoned Environmental Specialist and one Social Development Specialist, who have so far demonstrated adequate commitment and competence in E&S risk management. The project has additionally commenced the process to recruit a GBV Specialist who will oversee gender mainstreaming and implementation of the project's Gender Action Plan (GAP). The Ministry of Food and Agriculture (MOFA) has experience in World Bank projects. However, prior to FSRP2, the Ministry's experiences were on projects prepared under the safeguards (operational) policies. Following the effectiveness of FSRP2, the Bank has facilitated training on ESF for the PIU and key implementing agencies which has helped to strengthen their capacity on the ESF and the Environmental and Social Standards (ESSs). The current E&S staff of the PIU is adequate to manage the potential E&S risks and impacts expected from the AF activities.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC)

A.1 Environmental Risk Rating

The environmental risk rating of the AF activities is substantial which aligns with the rating of the parent project. . This rating has considered the inherent risks and impacts of the proposed activities, the recipient environment's sensitivity, the project's nature, and the capacity of the implementing agency. The project's environmental risks will largely emanate from the activities proposed under components 1 and 2. Proposed activities under component 1 comprise farmer registration and development of a Network Operating Centre (NOC) which will involve procurement of IT equipment including laptops for 261 District Departments, 16 Regional Departments, 50 District Extension Officers (DEOs), and 3000 tablets for Agriculture Extension Agents (AEAs). The batteries, metals, plastics, and other components of these equipment, at the end-of-life stage, will pose substantial risk to the environment if they are not properly managed. The proposed activities under component 2 also carry substantial risks and impacts. For instance, the proposed research and development (R&D), farm productivity (500ha is envisaged) and value addition in the tomato sector could potentially lead to land degradation from land clearing and poor farm practices; solid and liquid

Substantial

Substantial



waste generation; noise; contamination of water bodies, biodiversity, and personnel with agrochemicals such as pesticides, fertilizers, weedicides. There are other occupational health and safety risks such as exposure to animal attacks/bites, physical and mechanical hazards. Given that adaptive trial on tomato will be conducted at the northern zone, it could potentially lead to the introduction of non-native pests into the target regions which could be devastating to other unintended crops. The PIU is currently located in Accra (southern zone) but the proposed interventions on tomatoes will take place within the northern zone which will require extra efforts and coordination to ensure effective E&S management and monitoring. The risks and impacts will largely be localized, and temporary but those associated with water contamination from agrochemicals, and the accidental introduction of pests could go beyond the project boundaries and may have long-lasting impacts.

A.2 Social Risk Rating

Substantial

The social risk rating of the AF activities is substantial, aligning with the social risk rating of the parent project. This rating has considered the inherent risks and impacts of the proposed activities, the sensitivity of the recipient environment, the nature of the project, and the relatively weak enforcement of E&S regulations.. The project's social risks will largely emanate from the activities proposed under components 2. The proposed activities under Component 2 which plan increased farm productivity of 500ha, and value addition in the tomato sector could potentially result in small household/vulnerable farmers losing their farmlands and livelihood to the expansion. Moreover, such agricultural expansion could also expose the project to the use of child labor among the farmers. Other social risks include exclusion of women and other vulnerable groups from benefiting from farm inputs, research, and technology due to social norms and other discriminatory practices. There could also be elite capture of project benefits such as access to small grants and agricultural inputs, and risk of Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH). Lack of adequate consultations of stakeholders is a risk in addition to inadequate grievance mechanism to address complaints efficiently.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1 Relevance of Environmental and Social Standards

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Relevant

This standard is relevant. The substantial acquisition and use of IT equipment on the project under component 1 will pose environmental risks and impacts at the end-of-life stage if proper management measures are not instituted. Also, the R&D activities on tomato as well as tomato productivity and value addition interventions under component 2 could potentially lead to land degradation, solid and liquid waste generation; noise; contamination of water bodies with agrochemicals; loss of beneficial insects from pesticides; exposure of personnel to agrochemicals; accidental introduction of pests to the northern zone; exposure of farmers to occupational health and safety risks. With regards to the IT equipment, the PIU, as part of the parent project, has drafted an electronic waste (e-waste) management plan which considers the quantities expected from the AF activities. The draft e-waste plan is currently being reviewed by MOFA as it will be used to manage all electrical and electronic waste generated by the ministry. Subsequently, the project will share the e-waste management plan will be finalized and disclosed before the project reaches mid-term, by which time most of the equipment will still be working as expiration is expected beyond the life of the project. The parent project already identifies tomato as one of the crops to be supported within the northern zone which is the



same geographic location for the AF's interventions on tomatoes. The existing E&S instruments prepared for the parent project such as the Environmental and Social Management Framework (ESMF), and Integrated Pest Management Plan (IPMP) already provide adequate guidance and procedures to mitigate the potential environmental risks and impacts of the AF activities including those associated with the trials, production, and value addition of tomato. This includes the requirement to screen all proposed sites to determine the level of potential risk and prepare relevant site-specific instruments, when necessary.

ESS2 Labor and Working Conditions

Relevant

This standard is relevant. Just like the parent project, the AF will involve direct workers, supply workers and contracted workers. Direct workers include both full and part-time workers that have been assigned or may be assigned to the PIUs from the ministries and consultants that may be hired based on project needs. Civil servants working with the project full-time or part-time will remain subject to the terms and conditions governing their existing public sector terms of employment or agreements unless there has been a valid legal transfer of their employment or engagement to the project. Supply workers may include those who may be engaged by the project to supply physical and software infrastructure for the NOC, and input dealers that may supply certified seeds and agrochemicals etc. to the project beneficiaries. Contracted workers may be engaged to prepare tomato fields as part of the adaptive trials and/or productivity activities.

The terms and conditions of contracts for all workers so far hired under the parent project are consistent with national labor law that ensures that working conditions are acceptable (terms and conditions of employment, nondiscrimination, and equality of opportunity, workers' organizations). Labor requirement of the AF will adopt same procedure developed under the parent project. The Borrower will continue to ensure that the requirements of ESS2 are incorporated into contracts and bidding documents. Contractual obligations related to SEA/SH mitigation will be enforced through the inclusion of specific provisions in Codes of Conduct addressing SEA/SH and worker training and monitoring of Codes of Conduct and ages of workers.

Given the experience in the agricultural sector in Ghana context, there is a potential risk of child and forced labor being used in the proposed farm interventions. As part of project monitoring, the PIUs will ensure verification of the age of workers and demonstrate that child labor and forced labor and other prohibited practices under ESS2 and national law are not occurring. The tomato adaptive trials and productivity interventions will present some occupational health and safety hazards and risks to the farmers and workers such as exposure to wild animals e.g., snakes, scorpions; agrochemical poisoning; manual handling risks; trips; sharp blades of machinery, etc. These hazards were identified under the parent project and so the Labor Management Procedures (LMP) as well as the ESMF prepared for the parent project contain adequate mitigations measures, guidance and procedures to manage these and other OHS risks including forced labor and child labor risks, associated with this AF.

ESS3 Resource Efficiency and Pollution Prevention and Management

Relevant

The tomato productivity interventions are largely expected to happen within the rehabilitated Tono Irrigation Scheme and Vea Irrigation Scheme (rehabilitation is currently ongoing) in the Upper East region, specifically at the upland areas where drip irrigation is being promoted to ensure efficient use of water resources. For other areas outside the irrigation scheme, tomato production will largely be under rainfed agriculture. In all instances, tomato production will entail the use agrochemicals such as fertilizers and pesticides which must be well managed to avoid adverse impacts on water bodies, biodiversity, and soil. To this end, the parent project has prepared an IPMP which provides adequate guidance and procedures that are applicable to this AF.



Given the quantity of IT equipment expected under component 1, the Borrower shall ensure that the specifications in bidding and contract documents include energy conservation and efficiency criteria. Meanwhile, under the parent project, an e-waste management plan has been drafted, and it is being reviewed by MOFA. The plan will be reviewed and cleared by the Bank following which the client will disclose and implement it. The e-waste management plan is expected to be disclosed by the project's mid-term.

Also, tomato value- interventions are expected to generate waste and consume energy and water. As part of matching grant criteria to prospective beneficiaries, the project will prioritize and support proposals on green innovations and resource conservation measures that align with the objectives of ESS3.

During project implementation, all site-specific E&S instruments such as ESIAs and ESMPs which will be prepared will include mitigation measures on waste management, sustainable use of energy, raw materials, and water resources, as well as pollution prevention. So far, the parent project is still at the phase of preparing necessary feasibility studies, designs and E&S instruments that precede the actual implementation or construction of subprojects. However, the parent project has incorporated in all Terms of Reference (TORs) and ongoing studies, the necessary good industry practices and measures on waste management, pollution abetment, energy and water conservation which align with the objectives of ESS3.

ESS4 Community Health and Safety

Community health and safety risks are expected during project implementation through the application of agrochemicals such as pesticides, fertilizers, weedicides, and potential contamination of water bodies. These risks have been identified, assessed, and mitigated in the parent project's ESMF and IPMP documents which will continuously guide the implementation of the AF activities. Moreover, the project will ensure that site-specific E&S instruments, such asESIAs and ESMPs, which will be prepared during project implementation will assess and mitigate these risks including those related to SEA/SH. So far, the parent project has prepared a site-specific ESIA for the rehabilitation of the Kpong Irrigation Scheme (KIS) which has been reviewed and cleared by the Bank and the client has disclosed it. Several site-specific E&S instruments including ESIAs for the rehabilitation of other irrigation schemes, ESIAs for the development of in-land valleys, ESMPs, Dam Safety Assessments are ongoing, all of which had their TORs reviewed and cleared by the Bank. A Code of Conduct, including measures against SEA/SH for ensuring community health and safety, will be prepared, and included in all bidding documents. The parent project's GM will be adapted for each new site under the AF with sensitivity to a survivor-centric referral pathway to safely and ethically register complaints and address and document complaints and allegations (including those involving SEA/SH) during the project implementation.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

Activities related to component 2 of the AF could lead to the physical and/or economic displacement of people. The mitigation hierarchy will be applied and avoiding involuntary resettlement will be the preferred option. If this cannot be avoided, a resettlement action plan will include measures to minimize involuntary resettlement, compensate for loss of assets and include livelihood improvement plans for people affected by economic displacement. The Borrower will follow the guidance and principles documented in the Resettlement Policy Framework (RPF) prepared under the parent project to prepare site-specific Resettlement Action Plans (RAPs) during the implementation of the AF activities.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Relevant

Relevant

Public Disclosure

Relevant



The major activity under this AF that will impact on biodiversity is the tomato trial and productivity interventions. Here, biodiversity may be adversely impacted through inappropriate use of agrochemicals, indiscriminate land clearing and opening of new fields. These risks were anticipated under the parent project and for that matter the ESMF of the parent project provides adequate guidance on risk assessment, the mitigation hierarchy and precautionary principles in the design and implementation of such activities. The site-specific E&S instruments to be prepared during project implementation will provide mitigation measures to ensure that project activities do not alter or cause the destruction of any natural habitats. Also, the parent project uses an integrated approach to pest management and these measures contained in the parent project's IPMP will be used to guide the AF activities to avoid or minimize project impacts on beneficiary insects and other biodiversity.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Not Currently Relevant Local Communities

This standard is not currently relevant.

ESS8 Cultural Heritage

The regions to be covered by the AF have rich and diverse cultural heritage. The environmental and social assessment will confirm the existence of tangible or intangible cultural heritage in project areas. If there is any cultural heritage present that could be affected by the project, the Borrower will design mitigation measures, in consultation with the relevant national authorities and experts, to protect it. In accordance with ESS10, the Borrower will identify stakeholders relevant to the cultural heritage already known to exist or likely to be encountered during the project lifecycle, and carry out meaningful consultations, with national heritage institutions and local communities. When such impacts are unavoidable, adequate mitigation measures will be outlined in the environmental and social assessment instruments. Where appropriate, a Cultural Heritage Management Plan will be prepared and consulted upon with stakeholders. Meanwhile, the ESMF of the parent project already contains chance find procedures which will be applicable to the AF activities.

ESS9 Financial Intermediaries

This standard is not currently relevant

ESS10 Stakeholder Engagement and Information Disclosure

There are multiple levels of key stakeholders: national, district and community levels. The project brings together a range of different professionals and local stakeholders, including farmer associations and researchers who has been engaged under the Parent project. The Stakeholder Engagement Plan (SEP) developed under the Parent project outlined principles, processes and measures for continued engagement to solicit and harmonize expertise, concerns, and perspectives of these stakeholders into project design and throughout implementation. Also, the entire agricultural value-chain involves a complex network of actors with varying and sometimes opposing interests, which need to be efficiently managed, especially to mitigate conflict and exclusion. The existing Stakeholder Engagement Plan (SEP) prepared for the parent project does not adequately include the needs of tomato farmers and value chain actors in the Northern, North-east, and Upper East regions. The client will therefore prepare an annex report to the SEP of the Parent Project, to consult on needs of tomatoes farmers and value chain actors in the northern zone where the AF interventions on tomatoes will take place. The SEP annex will be consistent with ESS10 and include measures to,

Not Currently Relevant

Relevant

Relevant



provide stakeholders with timely, relevant, understandable, and accessible information relating to project risks and impacts. The SEP Annex should be developed within 3 months after the effective date of the AF, ensuring that the views and interests of all stakeholders, including the local communities and vulnerable individuals and groups, are taken into consideration throughout the implementation of the project.

B.2 Legal Operational Policies that Apply	
OP 7.50 Projects on International Waterways	Yes
OP 7.60 Projects in Disputed Areas	No
B.3 Other Salient Features	
Use of Borrower Framework	No
The Borrower's framework is not yet ready to be used instead of ESF	
Use of Common Approach	No
No financial partner is involved inn this project	

C. Overview of Required Environmental and Social Risk Management Activities

C.1 What Borrower environmental and social analyses, instruments, plans and/or frameworks are planned or required during implementation?

The E&S documents of the parent project comprising the ESMF, RPF, LMP and IPMP have been assessed to be relevant and adequate to manage the potential E&S risks and impacts associated with the proposed AF activities. However, the client will prepare an annex to the SEP within 3 months after the effective date to incorporate the needs of tomato farmers and value chain actors within the northern zone. These documents provide clear guidelines and procedures to identify, assess, evaluate and mitigate the E&S risks of the project. In line with these instruments, the project will screen subproject sites and activities and consult with the Bank for advice on the potential risk level and necessary site-specific instruments needed to address the potential risks and impacts. Where site-specific instruments are needed, the project will prepare them, share with the Bank for review and clearance and disclose them before commencement of such activities on the ground.

III. CONTACT POINTS

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IV. FOR MORE INFORMATION CONTACT

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V. APPROVAL

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