Document of

### **The World Bank**

#### FOR OFFICIAL USE ONLY

Report No: PAD5451

#### INTERNATIONAL DEVELOPMENT ASSOCIATION

**PROJECT PAPER** 

ON A

#### PROPOSED ADDITIONAL GRANT

IN THE AMOUNT OF SDR37.2 MILLION (US\$50.0 MILLION EQUIVALENT)

# FROM THE IDA20 CRISIS RESPONSE WINDOW-EARLY RESPONSE FINANCING (CRW-ERF)

ТΟ

**CENTRAL AFRICAN REPUBLIC** 

FOR THE

#### CENTRAL AFRICAN REPUBLIC EMERGENCY FOOD CRISIS RESPONSE PROJECT

June 1, 2023

Agriculture And Food Global Practice Western and Central Africa Region

This document has a restricted distribution and may be used by recipients only in the performance of their official duties. Its contents may not otherwise be disclosed without World Bank authorization.

### CURRENCY EQUIVALENTS

Exchange Rate Effective May 31, 2023

Currency Unit = Central African Franc (CFA) CFA 538.099 = US\$1 US\$0.742= SDR1

FISCAL YEAR January 1 - December 31

Ousmane Diagana
Cheick Fantamady Kante
Simeon Kacou Ehui
Chakib Jenane
Senakpon Aurelia Larissa Dakpogan, Laurent Corroyer, Sossena Tassew

### ABBREVIATIONS AND ACRONYMS

AF	Additional Financing				
AGETIP	Agence d'Exécution des Travaux d'Intérêts Public (Public Works Implementation Agency)				
APAs	Alternate Procurement Arrangements				
ARADSP	Agriculture Recovery and Agribusiness Development Project				
CAR	Central African Republic				
CERC	Contingent Emergency Response Component				
CSA	Climate-Smart Agriculture				
CPF	Country Partnership Framework				
EFCRP	Emergency Food Crisis Response Project				
ESCP	Environmental and Social Commitment Plan				
ESF	Environment and Social Framework				
ESRS	Environmental and Social Review Summary				
FAO	Food and Agriculture Organization				
FCV	Fragility, Conflict, and Violence				
Fls	Financial Intermediaries				
GBV	Gender-based Violence				
GDP	Gross Domestic Product				
GRM	Grievance Redress Mechanism				
HDI	Human Development Index				
IDA	International Development Association				
IPs	Indigenous Peoples				
IPC	Integrated Phase Classification				
IPF	Investment Project Financing				
IPPF	Indigenous Peoples Planning Framework				
IPP	Indigenous Peoples Plan				
M&E	Monitoring and Evaluation				
MARD	Ministry of Agriculture and Rural Development (Ministère de l'Agriculture et Developpement Rural)				
MPA	Multiphase Programmatic Approach				
MUVH	Ministry of Urbanism, Cities, and Housing (Ministere de l'Urbanisme des Villes et de l'Habitat)				
NGO	Non-Governmental Organization				
PCU	Project Coordination Unit				
PDO	Project Development Objective				
PPP	Purchasing Power Parity				
PPSD	Project Procurement Strategy for Development				
PSC	Project Steering Committee				
RF	Results Framework				
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment				
SMP	Security Management Plan				
SRA	Security Risk Assessment				
WECARD	West and Central African Council for Agricultural Research and Development				
WFP	World Food Program				
WBG	World Bank Group				

### **Central African Republic**

Additional Financing to the Central African Republic Emergency Food Crisis Response Project

### TABLE OF CONTENTS

I.	BAC	KGROUND AND RATIONALE FOR ADDITIONAL FINANCING	. 7
	Α.	Original Project Objective, Design, and Scope	7
	В.	Current Status of the Parent Project	8
	C.	Context and Rationale for Additional Financing	8
н.	DES	CRIPTION OF ADDITIONAL FINANCING	11
ш.	KEY	RISKS	13
IV.	APF	PRAISAL SUMMARY	15
	Α.	Economic and Financial Analysis	15
	в.	Greenhouse Gas (GHG) Accounting	15
	C.	Financial Management	16
	D.	Procurement	16
	Ε.	Legal Operational Policies	17
	F.	Environmental and Social	18
	G.	Gender	20
	н.	Citizen Engagement	20
ν.	wo	RLD BANK GRIEVANCE REDRESS	20
VI	SUN	/MARY TABLE OF CHANGES	<b>22</b> .
VII	DET	AILED CHANGE(S)	22
VIII	. RES	ULTS FRAMEWORK AND MONITORING	26



# BASIC INFORMATION – PARENT (Central African Republic (CAR) Emergency Food Crisis Response Project - P176754)

Country	Product Line	Team Leader(s)		
Central African Republic	IBRD/IDA	Senakpon Aurelia Larissa Dakpogan		
Project ID	Financing Instrument	Resp CC Req CC Practice		Practice Area (Lead)
P176754	Investment Project Financing	SAWA4 (10130)	AWCC1 (6544)	Agriculture and Food

#### Implementing Agency: Ministry of Agriculture and Rural Development

Is this a regionally tagged project?	
No	

Bank/IFC Collaboration

No

Approval Date	Closing Date	Expected Guarantee Expiration Date	Environmental and Social Risk Classification
29-Jun-2021	30-Sep-2024		High

Financing & Implementation Modalities			
[] Multiphase Programmatic Approach [MPA]	$[\checkmark]$ Contingent Emergency Response Component (CERC)		
[ ] Series of Projects (SOP)	[√] Fragile State(s)		
[] Performance-Based Conditions (PBCs)	[ ] Small State(s)		
[] Financial Intermediaries (FI)	[] Fragile within a Non-fragile Country		
[] Project-Based Guarantee	[√] Conflict		
[ ] Deferred Drawdown	$[\checkmark]$ Responding to Natural or Man-made disaster		
[] Alternate Procurement Arrangements (APA)	[] Hands-on Expanded Implementation Support (HEIS)		



#### **Development Objective(s)**

The objectives of the project are to increase food production and to improve resilience of targeted smallholder farmers and food insecure households in affected areas.

#### **Ratings (from Parent ISR)**

	Implementation			Latest ISR
	18-Oct-2021	19-Apr-2022	08-Nov-2022	11-May-2023
Progress towards achievement of PDO	S	S	S	S
Overall Implementation Progress (IP)	S	MS	MS	MS
Overall ESS Performance	S	MS	MS	S
Overall Risk	S	S	S	S
Financial Management	S	S	MS	MS
Project Management	S	MS	MS	MS
Procurement	S	MS	MS	MS
Monitoring and Evaluation	S	S	MS	MS

#### **BASIC INFORMATION – ADDITIONAL FINANCING (Additional Financing to the Central African Republic (CAR)** Emergency Food Crisis Response Project - P180996)

Project ID	Project Name	Additional Financing Type	Urgent Need or Capacity Constraints
P180996	Additional Financing to the Central African Republic (CAR) Emergency Food Crisis Response Project	Scale Up	Yes
Financing instrument	Product line	Approval Date	
Investment Project Financing	IBRD/IDA	14-Jun-2023	



Projected Date of Full Disbursement	Bank/IFC Collaboration	
19-May-2026	No	
Is this a regionally tagged	project?	
No		

#### **Financing & Implementation Modalities**

[ ] Series of Projects (SOP)	[√] Fragile State(s)
[] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[] Financial Intermediaries (FI)	[] Fragile within a Non-fragile Country
[] Project-Based Guarantee	[√] Conflict
[ ] Deferred Drawdown	[] Responding to Natural or Man-made disaster
[] Alternate Procurement Arrangements (APA)	[] Hands-on Expanded Implementation Support (HEIS)

# [✓] Contingent Emergency Response Component (CERC)

#### **Disbursement Summary (from Parent ISR)**

Source of Funds	Net Commitments	Total Disbursed	Remaining Balance	Disbursed
IBRD				%
IDA	50.00	22.76	23.82	49 %
Grants				%

# PROJECT FINANCING DATA – ADDITIONAL FINANCING (Additional Financing to the Central African Republic (CAR) Emergency Food Crisis Response Project - P180996)

#### FINANCING DATA (US\$, Millions)

#### **SUMMARY (Total Financing)**

	Current Financing	Proposed Additional Financing	Total Proposed Financing
Total Project Cost	50.00	50.00	100.00



Total Financing	50.00	50.00	100.00
of which IBRD/IDA	50.00	50.00	100.00
Financing Gap	0.00	0.00	0.00

#### **DETAILS - Additional Financing**

#### World Bank Group Financing

International Development Association (IDA)	50.00
IDA Grant	50.00

#### IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	SML Amount	Guarantee Amount	Total Amount
Central African Republic	0.00	50.00	0.00	0.00	50.00
Crisis Response Window (CRW)	0.00	50.00	0.00	0.00	50.00
Total	0.00	50.00	0.00	0.00	50.00

#### COMPLIANCE

#### Policy

Does the project depart from the CPF in content or in other significant respects?

### [ ]Yes [√]No

Does the project require any other Policy waiver(s)?

#### [ ] Yes [ ] No

Explanation

Has the waiver(s) been endorsed or approved by Bank Management?

Approved by Management [] Endorsed by Management for Board Approval [] No []



E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

**NOTE**: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

#### INSTITUTIONAL DATA

#### Practice Area (Lead)

Agriculture and Food

#### **Contributing Practice Areas**

Urban, Resilience and Land

#### **Climate Change and Disaster Screening**

This operation has not been screened for short and long-term climate change and disaster risks



# **PROJECT TEAM**

Ban	6	C+	off

Ddiik Stall			
Name	Role	Specialization	Unit
Senakpon Aurelia Larissa Dakpogan	Team Leader (ADM Responsible)	TTL	SAWA4
Laurent Corroyer	Team Leader	Co-TTL	SAWU1
Sossena Tassew	Team Leader	Co-TTL	SAWA4
Mouhamadou Kabir Ndoye	Procurement Specialist (ADM Responsible)	Procurement	EAWRU
Felipe Goya	Procurement Specialist	Procurement	SLCUR
Angelo Donou	Financial Management Specialist (ADM Responsible)	Financial Management	EAWG2
Sandrine Armelle Nambessa Ndoubenoue	Environmental Specialist (ADM Responsible)	Environmental Safeguards	SAWE4
Yves Bertrand Koudjou Tatang	Social Specialist (ADM Responsible)	Social Safeguards	SAWS1
Albert Francis Atangana Ze	Environmental Specialist	Environmental Safeguards	SAWE4
Beatrice Toubarot Mossane	Team Member	ACS	AWMCF
Diana-Alisson Balikouzou- Hinna	Procurement Team	Procurement	AWMCF
Gany Apaida Mbolidi	Procurement Team	Procurement	EAWRU
Mohammad Ilyas Butt	Procurement Team	Procurement	EAERU
Extended Team			
Name	Title	Organization	Location



#### I. BACKGROUND AND RATIONALE FOR ADDITIONAL FINANCING

#### A. Original Project Objective, Design, and Scope

1. The Central African Republic Emergency (CAR) Food Crisis Response Project (EFCRP) was approved by the Board on June 29, 2021, for a total of US\$50 million in IDA Grant (IDA D877). The Project became effective on October 21, 2021 and is due to close on September 30, 2024. The EFCRP's Project Development Objective (PDOs) are to increase food production and improve the resilience of targeted smallholder farmers and food-insecure households in affected areas. The Project supports stabilization efforts for improved resilience and contributes to helping CAR address the underlying drivers of fragility and to transition sustainably out of fragility/conflict. EFCRP is expected to benefit over 60,000 households (which represent approximately 420,000 beneficiaries) in Bangui and six districts of the country<sup>1</sup>. The project is organized around four components as summarized below:

- (a) Component 1 Support increased food production (US\$27.5 million equivalent): This component supports an accelerated supply response focused on restoring and preserving the productive capacity of farming households to enable continued and expanded production of key staple foods and livestock that are resilient to climate change. This is expected to increase food availability and therefore break the cycle of dependence on food aid. It has three subcomponents: (i) support food production and household nutrition (US\$16.3 million equivalent); (ii) support food basket distribution and linkages to market opportunities (US\$7.6 million equivalent); and (iii) strengthening hydro-meteorological information for early warning (US\$3.6 million equivalent).
- (b) Component 2 Labor-intensive public works (LIPW) for resilience (US\$17.0 million equivalent): This component finances livelihood support programs through Labor Intensive Public Works (LIPW) in six districts and Bangui. The LIPWs provide short-term relief to food-insecure households through cash-for-work activities, while at the same time fostering adaptation to climate change and enhanced resilience to flooding. This component has two subcomponents: (i) rehabilitation and maintenance of small-scale agricultural infrastructures (US\$2.2 million equivalent); and (ii) rehabilitation and maintenance of drainage infrastructure in Bangui (US\$14.8 million equivalent).
- (c) Component 3 Project Management (US\$5.5 million equivalent): This component supports: (i) day-to-day administrative, technical and fiduciary management; (ii) coordination of project activities, including specialized service providers; (iii) establishment and implementation of a robust monitoring and evaluation (M&E) framework, including baseline, mid-term, and final evaluations; and (iv) implementation of Environment and Social Framework (ESF) instruments, citizen engagement, community mobilization measures, and a Grievance Redress Mechanism (GRM).
- (d) Component 4 Contingent Emergency Response Component CERC (US\$0.0 million): The objective of this component is to enable the provision of immediate response to an Eligible Crisis or Emergency, as needed.

<sup>&</sup>lt;sup>1</sup> Haute Koto, Nana Gribizi, Basse Koto, Ouham, Ouaka, Mambere Kadei, and Bangui



#### **B.** Current Status of the Parent Project

2. As envisaged at appraisal, the project has already contributed to alleviating food insecurity and improving the livelihoods of vulnerable populations. Among other notable achievements, the project has provided 329,000 farmers - 51 percent of which are women - with agricultural inputs (mainly seeds, fertilizers, and animal feed), small equipment, and relevant training to support increased agricultural production and food availability. This represents 78 percent of the end of project target (i.e., 420,000 producers) and surpasses the intermediate target of 270,000 farmers set to be achieved this time into implementation. Reports indicate that almost 80,000 tons of food – both for own consumption and marketing - can thus far be attributed to project support. Moreover, 19,000 households received seed protection rations, and approximately 6,500 households were trained in post-harvest techniques and about 1,500 of these equipped with necessary tools to enhance packaging and harvest quality, enabling them to achieve better selling prices. Also, about 11,700 animals owned by vulnerable households have so far been vaccinated or treated for common diseases preventing both morbidity and mortality and thus protecting livelihoods.

3. **With respect to LIPW-based livelihood support programs,** agricultural and drainage infrastructures that will be rehabilitated and/or maintained through the project's cash-for-work mechanism have been identified, requisite technical specifications and environmental studies completed, and the process is underway to contract firms to manage the proposed rehabilitation.

4. Project performance is currently rated Satisfactory (S) with respect to the likelihood of achievement of the PDO and Moderately Satisfactory (MS) for implementation progress. The less than fully satisfactory rating for implementation progress is due to some initial delays in implementation attributed to the weak coordination capacity at the Project Coordination Unit (PCU), delays in contracting implementation partners, and insecurity in some project areas. The Financial Management (FM) performance is rated MS as the project requires further improvements to fully comply with international internal auditing standards and practices. Procurement performance is also rated as MS, primarily due to weaknesses in contract management by the PCU. Environmental and Social (E&S) performance is rated S. To-date, 49 percent of the project funds have been disbursed.

#### C. Context and Rationale for Additional Financing

5. **CAR with a population of more than six million people is one of the most fragile and poorest countries in the world.** In 2022, it ranked 188<sup>th</sup> out of 191 countries in the Human Development Index (HDI) and 120<sup>th</sup> out of 121 countries on the Global Hunger Index. The country faces multiple challenges that render it difficult to realize its potential, leaving 71.4 percent (in 2022) of its population in poverty (US\$1.90 per day, 2011 Purchasing Power Parity, PPP)<sup>2</sup>. Poverty is more widespread in rural areas, with an incidence of poverty of 74.2 percent compared to 61.1 percent in urban areas. The population of rural poor is 1.7 times higher than that of urban poor. Inequality is also high, with a Gini index of 0.4, which ranks CAR as third most unequal among Central African Economic and Monetary Community (CEMAC) countries, after the Republic of Congo and Cameroon.

6. In 2022, the CAR's economy stagnated for the third consecutive year mainly due to floods and fuel shortages. Floods directly affected 12 out of the country's 17 districts in the second half of 2022. The floods have had a significant impact on crops production and has damaged housing and transport

<sup>&</sup>lt;sup>2</sup> CAR Economic Update, Fifth Edition

infrastructures. In addition, pre-existing tensions between the government and fuel importers and distributors led to limited fuel supply on the formal market and contributed to the paralysis of the economy.

7. **CAR currently faces a severe food security crisis.** As per the latest Integrated Phase Classification (IPC) analysis – covering the period between September 2022 and March 2023, about 2.7 million people (41 percent of the population) face high levels of acute food insecurity (IPC3+). This number is expected to increase to nearly 3 million people (49 percent of the population) in the April to August 2023 period, representing a net increase of nearly 300,000 additional people in IPC3+ in less than one year. By August 2023, the majority of the country's regions are expected to be in either a crisis (IPC3+) or emergency (IPC4+) state, with regions previously in IPC3 projected to worsen. Forced displacement of the Sudanese population to CAR due to the ongoing crisis in Sudan could worsen the already alarming food security situation and further increase humanitarian needs. Over 52 percent of the population is undernourished and in the medium-term, malnutrition is projected to increase with reports indicating that 40 percent of children under-five already suffer from chronic malnutrition, which is above the emergency threshold of 30 percent. Food insecurity is also implicated as a leading cause of under-five mortality – standing at 84.3 deaths per 1,000<sup>3</sup> and one of the highest rates in the world in 2022.

8. Climate change will worsen development challenges in CAR, greatly impacting agricultural production and food security. The country faces various hydro-meteorological hazards, particularly floods and drought. CAR ranks fifth globally in terms of risks due to its high socio-economic vulnerability and limited capacity to cope with such shocks. Floods are the most frequent disasters, causing the largest economic and human losses in CAR, primarily affecting the southern region. This highlights the ongoing vulnerability of CAR's population, especially the poor, to natural hazards. Droughts are common in the northern part of the country. Climate change is expected to amplify the frequency and severity of extreme hydro-meteorological events.

9. Although CAR has a long-running history of perennial food insecurity mainly due to underperformance of the agriculture sector, conflict, and unfavorable macroeconomic conditions, the current spike is mainly a function of supply-side shocks including those related to lingering impacts of the COVID-19 pandemic, increase in food and fertilizer prices linked with Russia's invasion of Ukraine, and the impacts of extreme weather events on food production. A combination of these factors has constricted the amount of food available in the country and led to significant increases in food prices - including a 6 percent increase for cassava, 17 percent for maize, and 46 percent for imported rice<sup>4</sup>.

10. To mitigate the food security crisis, the Government of CAR has put in place a US\$461.3 million food security response plan to improve the food and nutritional security of vulnerable individuals in the short-term while enhancing their resilience in the medium term. Despite contributions and pledges from various donors, including the World Bank's EFCRP (P176754), amounting to US\$302.2 million as of the end of 2022, a funding gap of US\$159.1 million remained. This gap is expected to widen as the food security situation continues to deteriorate further in 2023. The Government of CAR is currently unable to finance this gap from its budget resources as its budget situation has worsened due to a decline in tax revenues, coupled with an increase in security expenditures, and the non-disbursement of budgetary support from

<sup>&</sup>lt;sup>3</sup> https://donnees.banquemondiale.org/indicator/SH.DYN.MORT?locations=CF

<sup>&</sup>lt;sup>4</sup> https://docs.wfp.org/api/documents/WFP-0000142619/download/

development partners. The continued food insecurity, amidst the limited ability of the government to fully respond to the crisis provide a rationale for this AF to the EFCRP.

11. Although the proposed financing is modest compared to the need, it takes advantage of the modular and flexible design of the EFCRP – in which additional areas and beneficiaries can be covered as resources are available to scale-up ongoing activities to areas that are most affected. To help deal with the most proximate drivers of the current food crisis, the focus of the AF will be skewed towards a supply response targeting increased local production and resilience especially as the team's initial assessment confirms that increased local production both for own consumption and for local markets is a more cost-effective alternative to food imports. This design decision also ensures synergy and complementarity of the AF with other ongoing World Bank support to food security in CAR which is geared towards rapid responses, such as the Agriculture Recovery and Agribusiness Development Support Project (ARADSP)

12. The financing will provide more support to current beneficiaries and extend project interventions to three additional districts (Mboumou, Lobaye, and Sangha Mbaere) where food security has considerably deteriorated. Priority will be accorded to internally displaced persons (IDPs) and other eligible beneficiaries would be identified based on predetermined criteria which include rural households that have hosted IDPs, with whom they share their livelihoods, among others.

13. The proposed AF is well aligned with the World Bank Group (WBG) Country Partnership Framework (CPF-Report No. 150618 - CF) for CAR for FY21–25 as well as with the WBG Fragility, Conflict, and Violence (FCV) Strategy (Report No. 146551). Focus Area 1 of the CPF, "Human Capital and Connectivity to Boost Stabilization, Inclusion, and Resilience", includes several objectives to which this AF will contribute, namely: Support Stabilization Efforts for Improved Resilience, Deliver Quality, and Inclusive Health Services, and Put in Place Sustainable Safety Nets. This AF will also contribute to the CPF Focus Area 2 on "Economic Management and Improved Governance to Build State Legitimacy and Foster Growth", and the objective of Enhancing the Business Environment and Support Job Creation which includes support to agriculture. The proposed AF is also closely correlated to the FCV Strategy as it will contribute to helping CAR address the underlying drivers of fragility (as identified in the 2018 Risk and Resilience Assessment<sup>5</sup>) and transition sustainably out of fragility/conflict. CAR is one of the most fragile countries in the world<sup>6</sup>, where the risk of recurrence of conflict is higher if the level of food insecurity is high. Indeed, improved food security will help mitigate some of the spillovers of long years of conflict in the country. The AF is also aligned with the Global Crisis Response Framework Pillar 1 (Responding to Food Insecurity) and Pillar 3 (Strengthening Resilience). Project activities target the poor and the vulnerable – including IDPs and women.

<sup>&</sup>lt;sup>5</sup> Cycles of violence are deeply rooted in drivers of fragility, as identified by a 2018 Risk and Resilience Assessment (RRA). Those drivers include: (i) a lack of social cohesion at every level of society, which allows entrepreneurs of violence to capitalize on local grievances; (ii) concentration of political power in the hands of a small elite that is managing a state with little legitimacy and using institutions, including justice and security, to sustain itself; (iii) social and regional disparities between Bangui and the periphery, and between the East and the rest of the country, which have created grievances, fostered a perception of inequality and lack of inclusion, and contributed to the emergence of armed groups; (iv) elite capture and mismanagement of scarce natural resources - diamonds, gold, timber, grazing land; (v) a cycle of violence and trauma and a distressed population in an environment of violence and impunity; and (vi) a lasting state of insecurity fueled by a regional system of conflict and the failure of past security sector reform and disarmament, demobilization and reintegration processes.

<sup>&</sup>lt;sup>6</sup> In 2020, CAR ranked as the 6<sup>th</sup> most fragile country in the world according to the Fragile States Index (*https://fragilestatesindex.org/wp-content/uploads/2020/05/fsi2020-report.pdf*).



#### **II. DESCRIPTION OF ADDITIONAL FINANCING**

14. **The following changes are proposed:** (i) expansion of the project's target areas/geographical coverage and beneficiary registration mechanism; (ii) revision to components and costs; (iii) changes to physical targets for several Results Framework (RF) indicators to reflect the increased scale of the project; (iv) adjustments to institutional arrangements; and (v) an extension of the project closing date to allow for completion of the scaled-up activities.

15. **Change in Target Areas, and Beneficiary Registration Mechanism:** In addition to the current six districts<sup>7</sup> covered under the parent project, support will be extended to three more districts - Lobaye, Mboumou Sangha Mbaéré where food security has worsened. Additionally, registration of beneficiaries will be improved and will include issuance of unique identification cards – based on biometrics - to beneficiaries and registration in a computerized database. This is expected to improve transparency, ease project interactions with the beneficiaries, and also contribute to advancing the establishment of a unified social registry for CAR. The project will ensure that (i) women are properly targeted in the registry system and that (ii) strategies and actions are put in place so the system is inclusive and takes in account the specific needs of the most vulnerable including women.

16. The registration process will be supervised by representatives from the local development committees, municipal authorities, and the Ministry of Agriculture and Rural Development (MARD). To deal with potential concerns related to handling personal data several measures - including but not limited to the following - will be adopted (i) obtaining informed consent and ensuring that farmers are fully informed about the purpose of collecting their personal data; (ii) collecting only the necessary personal information required for project implementation and avoiding the gathering of excessive or irrelevant data; (iii) storing the collected data in secure and encrypted databases or systems to prevent unauthorized access or data breaches; and (iv) developing and enforcing procedures that outline how personal data will be handled, including guidelines for access, sharing, retention, and disposal of data.

Change in Project Components and Cost: Activities under the parent project remain valid and will 17. be largely unchanged. The AF will continue supporting production inputs and advisory services, postharvest management, improvement in household nutrition and cash for work to help vulnerable households to access food through the market. However, in addition to the current support towards rebuilding CAR's seed multiplication and delivery mechanisms which mainly focuses on setting up of community-based seed multiplication and distribution programs, training farmers to optimize seed and fertilizer use, and strengthening MARD seed quality control services under Component 1, project support will be broadened to include support to breeding and release of new varieties of seeds, especially those that are climate resilient. This will include support for: (i) a training and education program for CAR crop breeders; (ii) breeding activities and releasing of new crops varieties; and (iii) a network of seed suppliers to facilitate the sale of improved seeds and other agricultural inputs to smallholder farmers in the region. To accelerate the delivery of these activities and ensure complementarity between existing research development programs in the region, the project will collaborate with institutions such as International Institute of Tropical Agriculture (IITA), West and Central African Council for Agricultural Research and Development (WECARD), the University of Bangui, among others.

18. Still under Component 1, in addition to already ongoing activities in support of improved household nutrition, new support will be provided towards enhancing the competence of community

<sup>&</sup>lt;sup>7</sup> Haute Koto, Nana Gribizi, Basse Koto, Ouham, Ouaka, and Mambere Kadei.

health workers in the areas of nutrition and hygiene, to enable them to more effectively organize awareness campaigns and nutritional education training and ensure effective management of severe cases of malnutrition within the project area.

Component	Original cost	Changes with AF	Revised total cost
Support increased food production	27.5	40.0	67.5
Labor-intensive public works for resilience	17.0	5.0	22.0
Project Management	5.5	5.0	10.5
CERC	0.0	0.0	0.0
Total	50.0	50.0	100.0

#### 19. Table 1 below shows the revised project costs.

Table 1	Costs h	, compone	nt (1155	millions)
I able T.	COSIS D	Compone	πι (υσφ,	mmons

20. **Changes to the Results Framework:** The RF will undergo slight modifications to align with the increased scale. Although the PDO indicators will remain the same, their targets will be adjusted accordingly to reflect the additional resources received, and their definitions will be refined. In addition, relevant Intermediate Results indicators will be revised to improve the measurement and monitoring of the project activities, and the M&E plan will be refined. Table 2 presents the proposed changes to the RF.

Indicator	Original Target	Revised target	
PDO-level (outcome) indicator			
Farmers reached with agricultural assets or services (Number)	420,000	700,000	
(50% women)	210,000	350,000	
Volume of food crops produced (Metric ton)	200,000	330,000	
Beneficiaries of labor-intensive public works (Number)	45,000	50,000	
Of which women (Percentage)	30.0	30.0	
Intermediate Results Indicators by Component	s		
Component 1: Support increased food production	on		
Inputs distributed (Metric ton)	2,800	5,000	
Animals vaccinated or treated for common diseases (Number)	72,000	80,000	
Households using post-harvest technologies/facilities (Number)	20,000	35,000	
Professionals trained in crop breeding (Number) - new indicator	0	4	
New crops varieties released (Number) - <u>new</u> indicator	0	8	
Quantity of improved seeds (base seed R1) of focus crops produced by seed	50	80	
growers group supported by the project (Metric ton)			
Of which climate-smart seeds (Percentage)	50.0	50.0	
Women receiving improved nutrition services and products (Number)	50,000	80,000	
Component 2: Labor-intensive public works for resilience			
Person-days of temporary employment created through labor-intensive public works (Number)	580,000	680,000	
Person-days for rehabilitation and maintenance of agricultural infrastructures (Number)	200,000	300,000	

#### **Table 2: Changes to RF indicators**



Indicator	<b>Original Target</b>	<b>Revised target</b>
Person-days of employment created for women through labor-intensive	174,000	194,000
public works (Number)		
Person-days for women for rehabilitation and maintenance of agricultural	60,000	80,000
infrastructures (Number)		
Area provided with rehabilitated small-scale agriculture infrastructures (Ha)	80	120

21. **Change in Institutional Arrangements:** Implementation arrangements for the project are expected to change. The PCU at MARD will continue to manage the project. The service agreement with Food and Agriculture Organization (FAO) will terminate while that of World Food Program (WFP) will be expanded to more to effectively meet the project objectives in a timely manner. This will include supporting input distribution, post-harvest loss management, and improving household nutrition. The PCU will also partner with national and international NGOs where feasible and appropriate. Additionally, the PCU will work with the central and decentralized services of MARD, that will provide support to producers through memoranda of understanding with the PCU in implementing these activities.

22. **Closing date extension:** The current closing date of September 30, 2024, will be extended to September 30, 2026, to allow for the completion of the scale-up activities.

#### III. KEY RISKS

23. **The overall residual risk of the project is rated** <u>Substantial</u>. A risk analysis using the Systemic Operations Risk-Rating Tool indicates that even after implementing planned mitigation measures, there are high and substantial residual risks in the areas of political and governance, macroeconomic, fiduciary, environmental and social, and stakeholder concerns. However, residual risks associated with sector strategies and policies, technical design, as well as institutional capacity for implementation and sustainability are considered to be of Moderate level.

24. **Political and Governance risk for achieving the PDO is rated <u>High</u>. CAR is highly fragile due to weak governance, limited state presence, insecurity, and economic inactivity. Though security has improved over the last year, violence could reoccur. The ruling party's efforts to change the 2016 Constitution and the unexpected cryptocurrency law passed in April 2022 increased political tensions and soured relations with other countries. This unstable environment could harm project implementation, and CAR suffers from institutional weaknesses, making transparency and accountability problematic. To mitigate risk, the team will work with the Country Management Unit, the MARD, and the ministers involved in the operation. Despite these efforts, residual risk remains high.** 

25. **Macroeconomic risk is <u>Substantial</u>.** Despite the approval of an Extended Credit Facility (ECF) from the IMF board on April 27, 2023, fiscal trade-offs will be difficult and costly regardless of the financing options. Although the ECF will provide needed assistance, in light of large debt repayments, its contribution will only be limited for new public spending. Accordingly, the overall fiscal balance is expected to remain in deficit over the medium term. According to the last joint IMF-WBG Debt Sustainability Analysis of April 2023, CAR remains at high risk of debt distress. Public debt is projected to be sustainable, though there exist substantial liquidity risks, as shown by relevant debt indicators, stemming from possible shortfalls in donor support and access to domestic and regional financial markets. Mitigating factors for macroeconomic risks include a debt management and transparency strategy that is pursued under the World Bank Sustainable Development Finance Policy<sup>6</sup>, as well as critical structural

reforms supported by development partners, including the International Monetary Fund and the World Bank, to improve public FM, increase domestic resource mobilization, and improve the business environment.

26. **Risks related to institutional capacity for implementation and sustainability are rated as** <u>**Moderate**</u>. CAR's central and line ministries suffer from ongoing implementation capacity gaps, and the existing PCU in MARD may lack sufficient capacity to coordinate the implementation of this AF, while also managing the ongoing Agriculture Recovery and Agribusiness Development Support Project (ARADSP) activities. Moreover, there are gaps in institutional capacity and funding to ensure the sustainability of project investments. To mitigate these risks, the parent project strengthened the capacities of the PCU through the recruitment of a FM specialist, and ESF assistants as well as providing additional training, on the new ESF. Further strengthening will be carried out through the recruitment of a technical director and an international technical assistant support on procurement. With the AF, the strengthening of the PCU will continue through the recruitment of a technical assistance for project monitoring and evaluation. Linkages between the project activities and other ongoing interventions supported by the World Bank and other development partners will be facilitated to contribute to building foundations for sustaining the achievement of this emergency project.

27. **The overall FM residual risk rating for the Project is assessed as <u>Substantial</u> mainly guided by the country context. The proposed financial management arrangements for this AF are considered adequate to meet the Banks' minimum FM requirements under World Bank Policy and Directive – Investment Project Financing (IPF).** 

28. **The risk associated with procurement is assessed as <u>Substantial</u>.** The main risk is related to the weaknesses noted in the contract management system of the PCU leading to delays in the implementation of contracts. This issue will be addressed by recruiting an additional Procurement Specialist (Technical Assistance) with a wide experience in contract management at the early stage of the project implementation to assist the PCU.

29. **Environmental and social risks are rated <u>High</u>.** To mitigate against environmental and social risks, the original project's environmental and social risk management instruments (Environmental and Social Management Framework - ESMF, Indigenous Peoples Policy Framework - IPPF, and Resettlement Policy Framework - RPF) are being updated. The MARD and the World Bank jointly prepared an Environmental and Social Commitment Plan (ESCP), which includes measures and actions to which the Recipient is committed, such as the preparation and implementation of environmental and social plans or instruments during project implementation, including the timeline for each of these. The implementation of any commitment included in the ESCP will be monitored and reported to the World Bank.

30. **Stakeholders' risk is** <u>Substantial</u>. The project implementation and choice of activities may not ensure that there is no exclusion, inter-group inequalities (farmers and pastoralists), and territorial marginalization. The project has recruited third parties Non-Governmental Organizations (NGOs) to implement the citizen engagement activities through consultations of beneficiaries, community monitories, and GRM to ensure the inclusion and participation of all groups in the project.

31. **Other risks: The risk of difficulty of access to beneficiaries is** <u>Substantial</u>. Accessing beneficiaries in some parts of the country continues to carry significant risks, as many districts have been classified as 'red' under the UN Security Classification. This means that project implementation teams and visiting missions to these sites require a military escort. To address these risks, the PCU has developed a Security Risks Management Plan, which will be updated to cover new localities covered by the AF. This plan



outlines the use of UN security measures, codes of conduct, measures to prevent sexual exploitation and abuse, and other relevant measures. The AF will adhere to the UN Risk and Safety Protocol.

#### IV. APPRAISAL SUMMARY

#### A. Economic and Financial Analysis

32. The project's main quantifiable benefits will be derived from the increased food crop production and the reduction in flood-induced damages. The realization of the first benefit will in turn ensure increased household-level availability of food and increased incomes for the sales of surpluses. These impacts will be the direct effects of the rapid distribution of improved seed and planting materials, coupled with access to complementary inputs (farm equipment and labor) and extension services. The reduction in flooding due to the restoration and rehabilitation of drainage infrastructure will increase resilience to future events (i.e., avoiding property damage). The project will also support other income-generating activities, by supporting the livestock sector with vaccination, and feed, and by supporting improved seed multiplication at the community level. In addition, the cash transfers will ensure continued food availability and recovery of livelihoods for vulnerable households, thus safeguarding existing assets and maintaining recent developmental gains. A part of the cash transfers will also serve households to procure the necessary inputs to continue their productive activities.

33. The project will have other positive impacts, non-quantifiable at this stage due to data availability. These include improved nutrition (as a result of diversification, in particular towards vegetable production in home gardens), improved climate change resilience (procurement and distribution of seeds and planting material will prioritize climate-smart/resilient varieties, if available), spillovers in term of demonstration effects, strengthening of extension services, property value appreciation, and better living conditions in areas repeatedly affected by floods, *inter alia*.

34. Overall, the project is economically justified, generating a net present value (NPV) (of US\$5.9 million (using a social discount rate of 6 percent) and an economic internal rate of return (EIRR) of **11.8 percent (over 10 years and on a budget of US\$100 million).** These results are satisfying, given that some of the project benefits could not be quantified. In addition, these economic results have been tested under several risk scenarios: the sensitivity analysis indicates that results are robust for small to moderate delays, cost overruns, and reduction in benefits. Yet, larger changes in these parameters can significantly affect the project's economic justification.

35. The project will also generate positive environmental externalities in terms of GHG mitigation - a total mitigation of 341,997 tCO2eq over 10 years, or about 34,200 tCO2eq per year, as described in Annex 1. When the social value of this environmental externality is considered, the overall economic results improve. Assuming the low estimate range of carbon social price, the EIRR increases to 22.9 percent and the NPV to US\$17.5 million. At the high estimate range, the EIRR increases to 34.7 percent and the NPV to US\$29 million.

#### B. Greenhouse Gas (GHG) Accounting

36. In its 2012 Environment Strategy, the World Bank has adopted a corporate mandate to conduct greenhouse gas (GHG) emissions accounting for investment lending in relevant sectors and has adopted the Ex-Ante Carbon-balance Tool (EX-ACT), which was developed by the Food and Agriculture Organization of the United Nations (FAO) in 2010. EX-ACT allows the assessment of a project's net carbon



balance, defined as the net balance of  $CO_2$  equivalent GHG that was emitted or sequestered as a result of project implementation compared to a without-project scenario. EX-ACT estimates the carbon stock changes (emissions or sinks), expressed in equivalent tons of  $CO_2$  (t $CO_2$ -eq) per hectare and year. The EX-ACT results indicate that the project activities will lead to mitigation of a total of -375,699 tons of CO2e over a period of 20 years - roughly -18,785 tons of CO2e per year.

#### C. Financial Management

37. The project will rely on the current fiduciary arrangements under the PCU-MARD which are deemed adequate. The PCU-MARD is currently managing the parent project. There are no overdue audit reports or Interim Financial Reports. The financial management risk was rated Substantial, and the performance was Moderately Satisfactory during the implementation support mission conducted in May 2023. In accordance with the Financial Management Manual for World Bank-Financed Investment Operations that became effective on March 1, 2010, and re-issued on September 7, 2021, the financial management systems of the parent project have been assessed to determine whether it can accommodate the additional financial and is acceptable to the World Bank. The assessment concluded that the FM arrangements meet the minimum fiduciary requirements under World Bank Policy and Directive for Investment Project Financing.

38. The internal controls in place are documented in the existing FM manual of procedures which is deemed acceptable to IDA and will be used for the AF. No additional updates would be required. The internal audit function under the current PCU-MARD-managed project requires significant improvements to fully comply with international internal auditing standards and practices. A recent implementation support mission of the ARADSP (P165855) under the internal audit function and improve the overall internal control environment for all of MARD-managed projects, the PCU will recruit, within three months after effectiveness based on ToR acceptable to the World Bank, an audit firm to provide training and hands-on support to the MARD-managed projects internal audit.

39. The ongoing external audit arrangements will be applied for the AF: The project accounts will be audited annually, and reports submitted to IDA not later than 6 months after the end of each year. The first audit reports under the EFCRP are due by June 2023. The existing TORs of the parent project will be revised to include the AF external auditing.

#### **D.** Procurement

40. The procurement activities for the AF will follow the same rules and procedures as the parent project, as outlined in The World Bank Procurement Regulations for IPF Borrowers (dated November 2020) and the World Bank's Anticorruption Guidelines (revised on July 1, 2016). The project will utilize the Systematic Tracking of Exchanges in Procurement (STEP) to plan, record, and monitor procurement transactions.

41. The major procurement activities will involve acquiring and distributing seeds, fertilizer, smallscale agricultural tools, and small agricultural equipment. The Project Procurement Strategy for Development will be revised based on lessons learned from the parent project, and procurement methods and market approaches will be defined. The revised PPSD, including the procurement plan for the first eighteen months have been reviewed by the World Bank.



42. The project's Manual of Procedures will be updated not later than one month after effectiveness to reflect the specific requirements of the AF. Procurement risks are assessed as "Substantial," primarily due to weaknesses in the PCU's contract management system, resulting in contract implementation delays. To address this, an additional Procurement Specialist (Technical Assistance) with extensive experience in contract management will be recruited at the early stages of project implementation to support the PCU. The specialist will also provide regular training on contract management to the PCU and MARD. A contract management team, consisting of Procurement Specialists, M&E Specialists, FM Specialists, engineers, and other relevant profiles, will be established within the PCU.

Risk/Issue	Action	Responsibility	Timeline
Slow procurement processing and potential delays, due to limited capacity to conduct specific related to consultant services procurement, heavy workload	Training on procurement for works will be organized (monthly procurement clinics are organized for the portfolio by the World Bank's procurement team. A Procurement Specialist (Technical Assistance) will be recruited. The PCU will put in place mechanisms for regular follow-up and monitoring of procurement processes.	The World Bank's Procurement Team	At the early stage of the Project implementation
Inadequate use of STEP resulting in many activities being flagged as delayed or pending implementation.	The PCU will ensure that STEP is adequately used, including timely uploading of the required documentation once the stages of the processes are completed.	PCU MARD	During project implementation
	Training on the use of STEP will be provided if needed particularly on contract administration	The World Bank's Procurement Team	During project implementation
Managing fraud and corruption and noncompliance.	Ex ante due diligence of firms selected will be attempted using databases available in-country and externally. Post-review of contracts will be scheduled immediately upon award of	PCU MARD The World Bank's	During project implementation
	contracts.	Procurement Team	
Loss and/or unauthorized access to procurement records due to poor record management.	The PCU will maintain all procurement records and will put in place dedicated staff to manage the records.	PCU MARD	During project implementation

#### Table 3. Project Procurement Risk Factors and Action Plan

#### E. Legal Operational Policies



	Triggered?
Projects on International Waterways OP 7.50	Yes
Projects in Disputed Areas OP 7.60	No

43. **OP 7.50** is applicable to this Project because the Project will involve the use and potential pollution of the Ubangi River and its tributaries which are shared by CAR, the Democratic Republic of Congo, and the Republic of Congo; and the Sangha River and its tributaries which are shared by CAR, Cameroon, and the Republic of Congo. The exception to the riparian notification requirement according to paragraph 7(a) of the Policy applies because activities will not adversely change the quality or quantity of water flows to the other riparians as the project finances minor additions or alterations to existing schemes. The exception to the notification requirement was approved by the RVP on May 31, 2023.

#### F. Environmental and Social

The key environmental issues that need to be managed during the planning, implementation, and 44. operation of the project are not expected to be irreversible. Under Component 1, activities relating to increasing food crop production through improved access to agri-inputs and provision of requisite advisory services are likely to lead to (i) agricultural land degradation and declining soil fertility due to inappropriate land use for certain types of agricultural uses, poor quality or use of technologies (types of equipment), poor farming practices (continuous cultivation without amendment, bush fires, export of biomass, lack of organic amendment, cultivation in the direction of the slope, etc.); (ii) deforestation or the destruction of trees during the opening or cultivation of plots; (iii) pollution of surface and underground water through the use of phytosanitary products; (iv) work accidents and water-borne illnesses. Under Component 2, activities related to supporting livelihood programs through LIPW methodology that clean, repair, maintain, restore, and rehabilitate infrastructure, could among other things lead to (i) occupational health and safety risks for workers, including in particular beneficiaries from cash-for-work programs, as well as safety risks related to the works for surrounding communities; (ii) encroachment on crops in the vicinity of work sites; (iii) alteration of air quality by the emission of exhaust gases from construction site vehicles; and (iv) noise pollution, construction site waste, etc.

#### 45. The anticipated social risks and impacts include:

(a) High risks of Sexual Exploitation and Abuse (SEA) and Sexual Harassment (SH). The SEA/SH assessment is based on the country context and project-specific indicators. The risks identified are exacerbated given the very high prevalence of Gender-based Violence (GBV) in CAR, and considering project objectives related to supporting increased food crop production, rehabilitation of critical infrastructures, and improving household nutrition for the most vulnerable women, including girls and the disabled, and including adolescent boys and girls, in the rural communities, the LIPW and the Cash for Work. Therefore, to mitigate the risk, the project will implement the recommended risk mitigation measures outlined in the Good Practice Note: "Addressing Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) in Investment Project Financing involving Major Civil Works". The SEA/SH risks assessment and an Action plan developed for the parent project is being updated for disclosure. In addition, a code of conduct and awareness of sexual exploitation and abuse, especially among all NGOs and contractors, will

also be needed. It is also worth noting that the project's Grievance Redress Mechanism will consider SEA/SH-related complaints.

- (b) Risks for exclusion, marginalized and vulnerable groups and other agricultural practitioners minorities groups which include female heads of households, young people in vulnerable situations (living with disabilities, orphans, associated with armed groups, etc.), unemployed youth, refugees, IDPs and returnees, people from ethnic or religious minorities, including those living in a community with different ethnic and religious majority characteristics who are at risk of discrimination and stigmatization such as Indigenous Peoples (IPs) and the Mbororo Peuhls, being unable to access food and nutrition facilities (e.g., nutrition for children, seed and inputs distribution, compensation) in a way that undermines the PDO. Strategic approaches have been developed through the updated Stakeholder Engagement Plan (SEP) to ensure that there is no exclusion or marginalization of any vulnerable groups.
- (c) Security risks: The project will be implemented in nine districts of CAR. Unfortunately, there are non-state armed groups that are not under government control and with a history of violence. This means that the risks of attacks on project workers as well as beneficiaries and partners of implementation should be considered. A Security Risk Assessment (SRA)/Security Management Plan (SMP) developed for the parent project has shown that the security risk is high. This has been updated to integrate risks assessed in new zones and the mitigation measures.

#### 46. The social risk classification also considered the following aspects:

- (a) Regarding the specific case of the risks of exclusion of indigenous peoples: There is a risk that IPs are excluded from participating in consultations carried out by the project or that they are not undertaken in an adequately accessible and culturally sensitive manner with them, which may result in IPs not being aware of project's provided benefits or may result in discrimination by other groups. To mitigate these risks, the parent project's Indigenous Peoples Planning Framework (IPPF) that has been developed, consulted upon, approved, and disclosed is being updated to reflect the changes with the AF. Once project-specific sites and activities are determined, if needed, the Borrower will prepare an Indigenous Peoples Plan (IPP) acceptable to the World Bank that sets out measures through which the project will ensure that: (i) IPs affected by the project receive culturally appropriate social and economic benefits; and (ii) if potential adverse effects on IPs are identified, those adverse effects are avoided, minimized, mitigated, or compensated.
- (b) Potential risks related to stakeholder engagement activities of the project and eventual social conflicts that could be exacerbated.

47. The proposed AF project will be implemented in compliance with the ESF. While the project's environmental and social outcomes are expected to be positive, negative impacts may arise during implementation phases. A Stakeholder Engagement Plan (SEP), a Labour Management Procedure (LMP), a Sexual Exploitation and Abuse and Sexual Harassment (SEA/SH) risk assessment and action plan, a Security Risk Assessment and Security Management Plan (SRA/SMP), an Environment and Social Commitment Plan (ESCP), ESMF, IPPF, and RPF prepared and approved for the parent project, are still relevant for the AF. These different framework instruments are under revision and project activities will not be implemented in new areas until the revised documents are approved by the World Bank and disclosed In addition, in accordance with the guidance already provided in the framework instruments and which at least remains relevant, specific studies such as Environmental and Social Impact Assessment



(ESIA), Environmental and Social Management Plans (ESMP), Resettlement Action Plans (RAP), and Indigenous Peoples Plans (IPP) will be prepared and submitted by the Recipient to the World Bank prior to the commencement of work whenever one or more of these studies are required.

#### G. Gender

48. CAR ranks 159 out of 162 countries in 2022, in the Gender Inequality Index, indicating significant gender inequalities remain in the country. Women in CAR have limited access to education, employment, economic and political participation, and face discrimination and violence. Discriminatory laws, social norms, pervasive domestic violence, and poor access to justice further limit women's economic empowerment, inhibiting their financial inclusion and independence. The project will seek to close the gender gap in agricultural productivity and provide immediate food security support by expanding a targeted program that includes kitchen garden inputs and nutrition training for women. An additional 30,000 women will receive the package while farming input distribution targets the wider community. In rural areas, the AF activities will encourage women, including young women, to participate in cash-forwork through community mobilization strategies that emphasize equal participation. The project will also ensure equal representation of women in community consultations and neighborhood committees involved in the selection process for LIPW beneficiaries. The project will make efforts to accommodate women's needs by adapting working conditions, such as flexible working hours for childcare and safety considerations. Women's participation in LIPW will provide financial remuneration, which can boost their earnings and increase their households' ownership of durable goods, productive assets, and livestock. This will diversify their income sources and build climate resilience. The project will guarantee that at least 30 percent of LIPW beneficiaries are women.

#### H. Citizen Engagement

49. **Community participation and citizen engagement remain integral to the design of the AF**. Citizens' participation in decision-making, risk mitigation, and control over project resources and planning is crucial to support the resilience objectives of the project. The involvement of local communities in project activities can empower beneficiaries with decision-making power, enabling them to better face shocks and build household and community skills for local development. Increased engagement of local communities can also promote transparency and trust in the Government, as well as give a voice and empowerment to marginalized and climate-vulnerable groups, including women and youth. In practice, community engagement will be organized through the PCU, where community members can interface with local government representatives.

#### V. WORLD BANK GRIEVANCE REDRESS

50. **Grievance Redress.** Communities and individuals who believe that they are adversely affected by a project supported by the World Bank may submit complaints to existing project-level grievance mechanisms or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project-affected communities and individuals may submit their complaints to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution.



Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, please visit https://accountability.worldbank.org.



### VI SUMMARY TABLE OF CHANGES

	Changed	Not Changed
Results Framework	√	
Components and Cost	$\checkmark$	
Loan Closing Date(s)	$\checkmark$	
Implementing Agency		✓
Project's Development Objectives		✓
Cancellations Proposed		✓
Reallocation between Disbursement Categories		✓
Disbursements Arrangements		✓
Legal Covenants		√
Financial Management		✓
Procurement		√

### VII DETAILED CHANGE(S)

#### COMPONENTS

Current Component Name	Current Cost (US\$, millions)	Action	Proposed Component Name	Proposed Cost (US\$, millions)
Support increased food production	27.50	Revised	Support increased food production	67.50
Labor-intensive public works for resilience	17.00	Revised	Labor-intensive public works for resilience	22.00
Project management	5.50	Revised	Project management	10.50
Contingent Emergency Response Component	0.00		Contingent Emergency Response Component	0.00
TOTAL	50.00			100.00



## LOAN CLOSING DATE(S)

Ln/Cr/Tf	Status	Original Closing	Current Closing(s)	Proposed Closing	Proposed Deadline for Withdrawal Applications
IDA-D8770	Effective	30-Sep-2024	30-Sep-2024	30-Sep-2026	30-Jan-2027

### **Expected Disbursements (in US\$)**

Fiscal Year	Annual	Cumulative
2021	0.00	0.00
2022	0.00	0.00
2023	7,000,000.00	7,000,000.00
2024	30,000,000.00	37,000,000.00
2025	35,000,000.00	72,000,000.00
2026	28,000,000.00	100,000,000.00
2027	0.00	100,000,000.00
2028	0.00	100,000,000.00

## SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Latest ISR Rating	Current Rating
Political and Governance	High	High
Macroeconomic	Substantial	Substantial
Sector Strategies and Policies	Moderate	Moderate
Technical Design of Project or Program	Moderate	Moderate
Institutional Capacity for Implementation and Sustainability	Moderate	Moderate
Fiduciary	Substantial	Substantial
Environment and Social	High	<ul> <li>High</li> </ul>
Stakeholders	Substantial	Substantial
Other		
Overall	Substantial	Substantial



#### LEGAL COVENANTS – Additional Financing to the Central African Republic (CAR) Emergency Food Crisis Response Project (P180996)

Sections and Description

#### Schedule 2, Section I.A.2.

The Recipient shall maintain, throughout the Project implementation period, a project coordination unit ("PCU"), within the MoARD, with composition, mandate and resources satisfactory to the Association. To this end, the PCU shall:

- (a) maintain the technical director, the GBV/SEA/SH specialist, two E&S specialists, the financial management specialist and the procurement specialist, each with qualifications, experience and terms of reference, acceptable to the Association;
- (b) maintain throughout the Project implementation period, an external auditor, with qualifications, experience and terms of reference, acceptable to the Association;
- (c) recruit no later than two (2) months after the Effective Date, and thereafter maintain throughout Project implementation period, a security specialist, with qualifications, experience and terms of reference, acceptable to the Association;
- (d) update, disclose, consult upon, and adopt the standalone waste management plan no later than sixty (60) days after the Effective Date; and
- (d) be responsible for day-to-day coordination of the Project activities, including: (i) carrying out Project financial management and procurement activities; (ii) monitoring and evaluating Project activities and preparing Project progress reports and monitoring and evaluation reports; (iii) ensuring compliance with the Environmental and Social Commitment Plan ("ESCP") and Environmental and Social Standards for Project activities; and (iv) coordinating with other stakeholders and Service Providers involved in Project implementation.

Sections and Description

Schedule 2, Section I.A.2.

The Recipient shall maintain, throughout the Project implementation period, a technical committee, with composition, mandate and resources satisfactory to the Association ("Technical Committee"). To this end, the Technical Committee shall report to the PCU and provide technical guidance for the implementation of the Project.

Sections and Description

Schedule 2, Section I.A.4.

The Recipient shall maintain, throughout the Project implementation period, with composition, mandate and resources satisfactory to the Association, a steering committee, to be chaired by the Minister of MoARD, and comprised of members from the Ministries of public works, urban planning, transport; finance, plan, social affairs, agriculture, territorial administration, water resources, sector stakeholders, the Municipality of Bangui and other entities deemed relevant ("Steering Committee").

Sections and Description

Schedule 2, Section I.B.1.



The Recipient shall update, no later than (1) month after the Effective Date, or such later date as agreed by the Association, and thereafter ensure that the Project is carried out in accordance with a Project Implementation Manual ("PIM") satisfactory to the Association.

Sections and Description

Schedule 2, Section I.F.1.

The Recipient shall ensure that the Project is carried out in accordance with the Environmental and Social Standards, in a manner acceptable to the Association.

Sections and Description

Schedule 2, Section I.F.2.

Without limitation upon paragraph 1 above, the Recipient shall ensure that the Project is implemented in accordance with the Environmental and Social Commitment Plan ("ESCP"), in a manner acceptable to the Association. To this end, the Recipient shall ensure that:

- (a) the measures and actions specified in the ESCP are implemented with due diligence and efficiency, as provided in the ESCP;
- (b) sufficient funds are available to cover the costs of implementing the ESCP;
- (c) policies and procedures are maintained, and qualified and experienced staff in adequate numbers are retained to implement the ESCP, as provided in the ESCP; and
- (d) the ESCP, or any provision thereof, is not amended, repealed, suspended or waived, except as the Association shall otherwise agree in writing, as specified in the ESCP, and ensure that the revised ESCP is disclosed promptly thereafter.

Sections and Description

# Schedule 2, Section I.G.1.

Notwithstanding the provisions of Section F of Schedule II to this Agreement, the Recipient shall, before implementing any activity in New Project's Areas, update, disclose, consult upon, and adopt an updated ESMF, LMP, SRA/SMP, IPPF, SEA-SH/GBV Action Plan, Resettlement Framework, and SEP all under terms satisfactory to the Association.

Conditions



#### **VIII. RESULTS FRAMEWORK AND MONITORING**

#### **Results Framework**

**COUNTRY: Central African Republic** 

Additional Financing to the Central African Republic (CAR) Emergency Food Crisis Response Project

#### Project Development Objective(s)

The objectives of the project are to increase food production and to improve resilience of targeted smallholder farmers and food insecure households in affected areas.

#### **Project Development Objective Indicators by Objectives/ Outcomes**

Indicator Name	PBC	Baseline		Inte	rmediate Targets		End Target
			1	2	3	4	
Increased food production							
Farmers reached with agricultural assets or services (CRI, Number)		0.00	120,000.00	270,000.00	420,000.00	600,000.00	700,000.00
Action: This indicator has been Revised							
Farmers reached with agricultural assets or services - Female (CRI, Number)		0.00	60,000.00	135,000.00	210,000.00	300,000.00	350,000.00
Action: This indicator has been Revised							
Volume of food crops produced (Metric ton)		0.00	66,500.00	133,500.00	200,000.00	270,000.00	330,000.00
Action: This indicator has been Revised							



Indicator Name	PBC	Baseline	Intermediate Targets				
			1	2	3	4	
Labor-intensive public works for	or resil	ience					
Beneficiaries of labor-intensive public works (Number)		0.00	16,500.00	32,500.00	45,000.00	47,000.00	50,000.00
Action: This indicator has been Revised							
Of which women (Percentage)		0.00	30.00	30.00			30.00
Of which internally displaced persons (Percentage)		0.00	25.00	25.00			25.00

### Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline		End Target			
			1	2	3	4	
Support increased food produc	tion						
Inputs distributed (Metric ton)		0.00	698.00	2,182.50	2,800.00	4,000.00	5,000.00
Action: This indicator has been Revised	1						
Cassava sterm (Metric ton)		0.00	200.00	600.00	800.00	1,000.00	1,370.00
Action: This indicator has been Revised							
Maize seed (Metric ton)		0.00	62.00	186.00	248.00	350.00	500.00



Indicator Name	PBC	Baseline	Intermediate Targets				End Target
			1	2	3	4	
Action: This indicator has been Revised							
Groundnut (Metric ton)		0.00	150.00	450.00	600.00	900.00	1,070.00
Action: This indicator has been Revised							
Red bean seed (Metric ton)		0.00	15.00	45.00	60.00	90.00	107.00
Action: This indicator has been Revised							
Fertilizers (Metric ton)		0.00	160.00	570.00	650.00	650.00	1,160.00
Action: This indicator has been Revised							
Vegetable seed (Metric ton)		0.00	1.00	1.50	2.00	3.00	1.00
Action: This indicator has been Revised							
Rice (Metric ton)		0.00	50.00	150.00	200.00	300.00	357.00
Action: This indicator has been Revised							
Squash (Metric ton)		0.00	10.00	30.00	40.00	65.00	72.00
Action: This indicator has been Revised							
Sorghum (Metric ton)		0.00	50.00	150.00	200.00	300.00	360.00



Indicator Name	PBC	Baseline		Inte	rmediate Targets		End Target
			1	2	3	4	
Action: This indicator has been Revised							
Animal feeds (Metric ton)		0.00	1.00	2.00	3.00		3.60
Action: This indicator has been Revised							
Household provided with food baskets (Number)		0.00	20,000.00	0.00			20,000.00
Animals vaccinated or treated for common diseases (Number)		0.00	24,000.00	54,000.00	72,000.00	75,000.00	80,000.00
Action: This indicator has been Revised							
Households using post-harvest technologies/facilities (Number)		0.00	6,000.00	13,000.00	20,000.00	30,000.00	35,000.00
Action: This indicator has been Revised							
Quantity of improved seeds (base seed R1) of focus crops produced by seed growers group supported by the project (Metric ton)		0.00	10.00	30.00	50.00	60.00	80.00
Action: This indicator has been Revised							
Of which climate-smart seeds (Percentage)		0.00	10.00	30.00			50.00
Women receiving improved nutrition services and products (Number)		0.00	10,000.00	30,000.00	50,000.00	70,000.00	80,000.00



Indicator Name	PBC Baseline			Int	ermediate Targets		End Target
			1	2	3	4	
Action: This indicator has been Revised							
Target beneficiaries with rating "satisfied" or above with services provided by the project interventions (Percentage)		0.00	70.00	72.00	75.00	77.00	80.00
Action: This indicator has been Revised							
Meteorological stations established and/or rehabilitated (Number)		0.00	3.00	12.00			12.00
Professionals trained in forecasting and modeling of hydro-meteorological phenomena (Number)		0.00	50.00	100.00			100.00
Of which women (Percentage)		0.00	30.00	30.00			30.00
Basic flood early-warning system is in place and functional (Yes/No)		No	No	Yes			Yes
Professional trained in crop breeding (Number)		0.00	0.00	0.00			4.00
Action: This indicator is New							
New crop varieties released (Number)		0.00	0.00	0.00			8.00
Action: This indicator is New							



Indicator Name	PBC	Baseline		End Target			
			1	2	3	4	
Person-days of temporary employment created through labor-intensive public works (Number)		0.00	200,000.00	416,000.00	580,000.00	650,000.00	680,000.00
Action: This indicator has been Revised							
Person-days for rehabilitation and maintenance of agricultural infrastructures (Number)		0.00	50,000.00	120,000.00	200,000.00	270,000.00	300,000.00
Action: This indicator has been Revised							
Person-days for drainage rehabilitation and maintenance (Number)		0.00	150,000.00	296,000.00			380,000.00
Person-days of employment created for women through labor-intensive public works (Number)		0.00	60,000.00	129,000.00	174,000.00	184,000.00	194,000.00
Action: This indicator has been Revised							
Person-days for women for rehabilitation and maintenance of agricultural infrastructures (Number)		0.00	15,000.00	40,200.00	60,000.00	70,000.00	80,000.00
Action: This indicator has been Revised							
Person-days for women for drainage rehabilitation and maintenance (Number)		0.00	45,000.00	88,800.00			114,000.00



Indicator Name	PBC	Baseline		End Target			
			1	2	3	4	
Area provided with rehabilitated small-scale agriculture infrastructures (Hectare(Ha))		0.00	20.00	48.00	80.00	100.00	120.00
Action: This indicator has been Revised							
Drainage canals cleaned, repaired, or rehabilitated (Meter(m))		0.00	13,200.00	18,400.00			19,900.00
Drainage canals cleaned or repaired (Meter(m))		0.00	12,000.00	15,500.00			15,500.00
Drainage canals rehabilitated (Meter(m))		0.00	1,200.00	2,900.00			4,400.00
People living in area benefitting from improved drainage (Number)		0.00	239,000.00	249,000.00			270,000.00
Project management							
Grievances responded and/or resolved within the stipulated service standards for response time (Percentage)		0.00	90.00	100.00	100.00	100.00	100.00
Action: This indicator has been Revised							



	Monitoring & I	Evaluation Pla	n: PDO Indicator	S	
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Farmers reached with agricultural assets or services	This indicator measures the number of farmers who were provided with agricultural assets or services as a result of World Bank project support. "Agriculture" or "Agricultural" includes: crops, livestock, capture fisheries, aquaculture, agroforestry, timber, and non-timber forest products. Assets include property, biological assets, and farm and processing equipment. Biological assets may include animal agriculture breeds (e.g., livestock, fisheries) and genetic material of livestock, crops, trees, and shrubs (including fiber and fuel crops). Services include research, extension, training, education, ICTs, inputs (e.g., fertilizers, pesticides, labor), production-related services	Seasonal	Field reports	Surveys	PCU/MADR with FAO and WFP



	(e.g., soil testing, animal health/veterinary services), phyto-sanitary and food safety services, agricultural marketing support services (e.g., price monitoring, export promotion), access to farm and post-harvest machinery and storage facilities, employment, irrigation and drainage, and finance. Farmers are people engaged in agricultural activities or members of an agriculture- related business (disaggregated by men and women) targeted by the project.				
Farmers reached with agricultural assets or services - Female		Seasonal	Field reports	Surveys	PCU/MADR with FAO and WFP
Volume of food crops produced		Seasonal	End of season reports	Survey	PCU/MADR and FAO
Beneficiaries of labor-intensive public works		Bi-annual	AGETIP and FAO reports	AGETIP monitors the number of beneficiaries from LIPW in Bangui with support from the sub-contracted NGO that will facilitate recruitment for LIPW,	PCU/MADR with MUVH, AGETIP, and FAO



			consolidate and report the data to the PCU (incl. technical focal point from MUVH) in bi- annual activity reports. FAO monitors the number of beneficiaries from LIPW in rural areas with supported from sub-contracted NGOs as appropriate and report the data to the PCU in bi-annual activity reports.	
Of which women	Bi-annual	AGETIP and FAO reports	AGETIP monitors the number of female beneficiaries from LIPW in Bangui with support from the sub-contracted NGO that will facilitate recruitment for LIPW, consolidate and report the data to the PCU (incl. technical focal point from MUVH) in bi- annual activity reports. FAO monitors the number of female beneficiaries from LIPW in rural areas with supported from sub-	PCU/MADR with MUVH, AGETIP, and FAO



			contracted NGOs as appropriate and report the data to the PCU in bi-annual activity reports.	
Of which internally displaced persons	Bi-annual	AGETIP and FAO reports	AGETIP monitors the number of internally displaced persons among beneficiaries from LIPW in Bangui with support from the sub-contracted NGO that will facilitate recruitment for LIPW, consolidate and report the data to the PCU (incl. technical focal point from MUVH) in bi- annual activity reports. FAO monitors the number of internally displaced persons among beneficiaries from LIPW in rural areas with supported from sub-contracted NGOs as appropriate and report the data to the PCU in bi-annual activity reports.	PCU/MADR with MUVH, AGETIP, and FAO



Monitoring & Evaluation Plan: Intermediate Results Indicators					
Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Inputs distributed		Seasonal	Progress reports	Field monitoring	PCU/MADR with FAO
Cassava sterm					
Maize seed					
Groundnut					
Red bean seed					
Fertilizers					
Vegetable seed					
Rice					
Squash					
Sorghum					
Animal feeds					
Household provided with food baskets		Seasonal	Progress reports	Field monitoring	PCU/MADR with WFP
Animals vaccinated or treated for common diseases		Seasonal	Progress report	Field monitoring	PCU/MADR with FAO



Households using post-harvest technologies/facilities		Seasonal	Progress reports	Field monitoring	PCU/MADR with WFP
Quantity of improved seeds (base seed R1) of focus crops produced by seed growers group supported by the project		Annual	Progress report	Field monitoring	PCU/MADR with FAO
Of which climate-smart seeds					
Women receiving improved nutrition services and products		Seasonal	Field reports	Field monitoring and survey	PCU/MADR with FAO
Target beneficiaries with rating "satisfied" or above with services provided by the project interventions		Seasonal	Progress reports	Surveys	PCU/MADR with FAO
Meteorological stations established and/or rehabilitated	This indicator measures the number of stations repaired or installed by the project.	Annual	Project reports	Field Monitoring	PCU/MADR with FAO and Meteorology Directorate
Professionals trained in forecasting and modeling of hydro-meteorological phenomena		Quarterly	Project reports	Field monitoring	PCU/MADR with FAO, Meteorology, Hydrology, and Civil Protection Directorates
Of which women					
Basic flood early-warning system is in place and functional		Annual	Projet reports	Field monitoring	PCU/MADR with FAO, Meteorology, Hydrology, and Civil Protection Directorates
Professional trained in crop breeding	This indicator measures the number of professionals	annually	PCU reports	PCU/MARD monitor the selection enrollment	PCU/MARD,



	graduated in crop breeding program.			graduation of student in training program.	
New crop varieties released	Varieties released bu student enrolled in breeding program	seasonal	PCU reports	PCU/MARD	Filed monitoring
Person-days of temporary employment created through labor-intensive public works		Bi-annual	AGETIP and FAO reports	AGETIP monitors the number of worked person days in Bangui with the support from the sub-contracted NGO, consolidates and reports the data to the PCU (incl. technical focal point from MUVH) in bi- annual activity reports. FAO monitors the number of worked person days in rural areas with the support from the sub-contracted NGO as relevant and report the data to the PCU in bi-annual activity reports.	PCU/MADR with MUVH, AGETIP, and FAO
Person-days for rehabilitation and maintenance of agricultural infrastructures		Bi-annual	FAO reports	FAO monitors the number of worked person days in rural areas and reports the data to the PCU in bi- annual activity reports.	PCU/MADR with FAO



Person-days for drainage rehabilitation and maintenance	Bi-annual	AGETIP reports	AGETIP monitors the number of worked person days in Bangui with the support from the subcontracted NGO, consolidates and report the data to the PCU (incl. technical focal point from MUVH) in bi- annual reports.	PCU/MADR with MUVH and AGETIP
Person-days of employment created for women through labor-intensive public works	Bi-annual	FAO and AGETIP reports	AGETIP monitors the number of person days worked by women in Bangui with the support from the sub-contracted NGO, consolidates and reports the data to the PCU (incl. technical focal point from MUVH) in bi- annual activity reports. FAO monitors the number of person days worked by women in rural areas with the support from the sub- contracted NGO as relevant and report the data to the PCU in bi- annual activity reports.	PCU/MADR with MUVH, AGETIP, and FAO



Person-days for women for rehabilitation and maintenance of agricultural infrastructures	Bi-annual	FAO activity reports	FAO monitors the number of worked person-days, including gender, with the support from NGOs as required and report the data to the PCU in activity reports.	PCU/MADR with FAO
Person-days for women for drainage rehabilitation and maintenance	Bi-annual	AGETIP activity reports	AGETIP monitors the number of worked person-days, including gender, with the support from the subcontracted NGO and reports the data to the PCU (incl. technical focal point from MUVH) in bi- annual reports.	PCU/MADR with MUVH and AGETIP
Area provided with rehabilitated small- scale agriculture infrastructures	Annual	Progress report	Field monitoring, technical expert inspection	PCU/MADR with FAO and WFP
Drainage canals cleaned, repaired, or rehabilitated	Bi-annual	AGETIP activity reports	AGETIP monitors the total length of drainage canals cleaned, repaired, or rehabilitated. AGETIP will report the data to the PCU (incl. technical	PCU/MADR with MUVH and AGETIP



			focal point from MUVH) in bi-annual activity reports.	
Drainage canals cleaned or repaired	Bi-annual	AGETIP activity reports	AGETIP monitors the total length of drainage canals cleaned, repaired, or rehabilitated. AGETIP will report the data to the PCU (incl. technical focal point from MUVH) in bi-annual activity reports.	PCU/MADR with MUVH and AGETIP
Drainage canals rehabilitated	Bi-annual	AGETIP activity reports	AGETIP monitors the total length of drainage canals rehabilitated. AGETIP will report the data to the PCU (incl. technical focal point from MUVH) in bi- annual activity reports.	PCU/MADR with MUVH and AGETIP
People living in area benefitting from improved drainage	Bi-annual	AGETIP reports	AGETIP will monitor the length of drainage canals that have been cleaned, repaired, or rehabilitated and calculate the number of people benefitting from these improvements using the 1km buffer	PCU/MADR with MUVH and AGETIP



		and Worldpop data. AGETIP will consolidate and report the data to the PCU (incl. technical focal point from MUVH) in bi-annual activity reports.	
Grievances responded and/or resolved within the stipulated service standards for response time	Bi-annual		PCU/MADR with FAO, WPF, and AGETIP

## Annex 1: Greenhouse Gas Accounting

1. **Corporate mandate**. In its 2012 Environment Strategy, the World Bank has adopted a corporate mandate to conduct greenhouse gas (GHG) emissions accounting for investment lending in relevant sectors. The ex-ante quantification of GHG emissions is an important step in managing and ultimately reducing GHG emissions and is becoming common practice for many international financial institutions.

2. **Methodology.** To estimate the impact of agricultural investment lending on GHG emissions and carbon sequestration, the World Bank has adopted the Ex-Ante Carbon-balance Tool (EX-ACT), which was developed by the Food and Agriculture Organization of the United Nations (FAO) in 2010. EX-ACT allows the assessment of a project's net carbon balance, defined as the net balance of  $CO_2$  equivalent GHG that was emitted or sequestered as a result of project implementation compared to a without-project scenario. EX-ACT estimates the carbon stock changes (emissions or sinks), expressed in equivalent tons of  $CO_2$  (tCO<sub>2</sub>-eq) per hectare and year.

3. **Baseline scenario.** The baseline scenario without the project assumed that <u>limited improved</u> <u>agriculture technologies and practices are used</u>.

4. **Data sources.** The main project-specific data sources used for GHG accounting are from FAOSTAT and the CAR government.

5. **Key assumptions.** The project region has a <u>tropical</u> climate with a <u>moist</u> moisture regime. The dominant soil type is <u>low-activity clay</u>. The project implementation phase is <u>5 years</u> and the capitalization phase is assumed to be <u>15 years</u>. The <u>20 years</u> implementation period is standard in the use of EX-ACT.

6. **Project boundary.** As summarized in assumptions below, the changes brought about by the project were included in the tool's different modules and include: (i) improved crop productivity and production with less GHG emissions under different crops (groundnut, cassava, maize, sorghum, beans, and rice); and (ii) livestock restocking; and (iii) the increased input use (fertilizer and pesticides distributed by the project). No land-use changes were assumed at this stage, and the emissions of flooded rice systems (inland valley bottom rice) are assumed to remain constant, as no major changes are foreseen with project support.

## 7. Assumptions used in the EX-ACT Tool <u>Original plus AF</u> compared with the <u>original project</u>

Crop Production with improved agronomical practices

- a) Groundnut: from 6,500 to 10,725 ha
- b) Cassava: from 4,000 to 6,600 ha
- c) Maize: from 5,000 to 8,250 ha
- d) Sorghum: from 10,000 to 16,500 ha
- e) Beans: from 2,000 to 3,300 ha
- f) Flooded Rice Systems: Inland valley bottom rice: from 5,000 to 8,250 ha

*Livestock Production with improved practice, restocking (introduction of new animals)* 

- a) Chickens: from 60,000 to 108,000
- b) Goats: from 6,000 to 10,800
- c) Swine (market): from 6,000 to 10,800



Increased use of fertilizer and pesticides

a) From 1,400 to 2500 t NPK b) From 20L to 40L pesticides

8. **Results.** The net carbon balance quantifies the GHG that was emitted or sequestered as a result of the project compared to the without-project scenario. The carbon balance results indicate that the project activities will lead to a total of -375,699 tons of CO2e to be mitigated over a period of 20 years. The mitigation potential is roughly -18,785 tons of CO2e per year or -8.3 tons of CO2e per hectare. Overall, the additional emissions generated by the increased input use and livestock increase are offset and surpassed by the reductions in emissions due to improved agricultural practices on crop production, ensuring the project's carbon neutrality.