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INTERNATIONAL DEVELOPMENT ASSOCIATION  
PROJECT APPRAISAL DOCUMENT  
ON A  
PROPOSED CREDIT  
IN THE AMOUNT OF SDR 27.9 MILLION  
(US\$40 MILLION EQUIVALENT)  
TO THE  
REPUBLIC OF GUINEA  
FOR A  
GUINEA INTEGRATED AGRICULTURAL DEVELOPMENT PROJECT  
May 25, 2018

Agriculture Global Practice  
Africa Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2018)

Currency Unit = United States Dollars (US\$)

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Guinea Franc (GNF) 8,977= US\$1

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SDR 0.69538128 = US\$1

## FISCAL YEAR

January 1 - December 31

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## ABBREVIATIONS AND ACRONYMS

ACGPMP	<i>Administration et Contrôle des Grands Projets et des Marchés Publics</i> (Administration and Control of Large Projects and Public Procurement)
AFD	<i>Agence Française de Développement</i> (French Development Agency)
AGUIPEX	<i>Agence Guinéenne de Promotion des Exportations</i> (Guinean Agency for Exports Promotion)
ANAG	<i>Association Nationale des Aviculteurs de Guinée</i> (Guinea National Association of Poultry Producers)
ANASAA	<i>Agence Nationale des Statistiques Agricoles et Alimentaires</i> (National Agency for Agricultural and Food Statistics)
ANPROCA	<i>Agence Nationale de la Promotion Rurale et du Conseil Agricole</i> (National Agency for Rural Promotion and Agricultural Extension)
APIP	<i>Agence de Promotion de l'Investissement Privé</i> (Promotion Agency for Private Investment)
ARAP	Abbreviated Resettlement Action Plan
AWP&B	Annual Workplan and Budget
BGEEE	<i>Bureau Guinéen d'Etude et d'Evaluation Environnementale</i> (Guinean Environmental Study and Assessment Office)
BSD	<i>Bureau de Stratégie et de Développement</i> (Office of Strategy and Development)
CAN	Climate Action Network
CERC	Contingency Emergency Response (sub)Component
CNOP-G	<i>Confédération Nationale des Organisations Paysannes de Guinée</i> (National Confederation of Farmers Organizations)
CPF	Country Partnership Framework
DA	Designated Account
DNGR	<i>Direction Nationale du Génie Rural</i> (National Directorate for Rural Engineering)
DPO	Development Policy Operation
EFA	Economic and Financial Analysis
ENPV	Economic Net Present Value
ESMF	Environmental and Social Management Framework
EU	European Union
EX-ACT	Ex-Ante Carbon-balance Tool
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	Food and Agriculture Organization Corporate Statistical Database
FCI	Finance, Competitiveness, and Innovation
FI	Financial Institutions
FNPV	Financial Net Present Value
PPFD	<i>Fédération des Paysans du Fouta Djallon</i> (Fouta Djallon Farmers Federation)
FPG	<i>Fédération des Pisciculteurs de Guinée</i> (Guinea Federation of Fish Farmers)
FY	Fiscal Year
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GIADP	Guinea Integrated Agricultural Development Project

GRM	Grievance Redress Mechanism
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IEG	Independent Evaluation Group
IFAD	International Fund for Agricultural Development
INDC	Intended Nationally Determined Contribution
IPF	Investment Project Financing
IPPMP	Integrated Pest and Pesticides Management Plan
IRR	Internal Rate of Return
ISM	Implementation Support Mission
M&E	Monitoring and Evaluation
MFD	Maximizing Financing for Development
MFI	Micro-Financial Institution
MGIM	Matching Grant Implementation Manual
MoA	Ministry of Agriculture
MP	Micro-Project
MTI	Macroeconomics, Trade, and Investment
PASAG	<i>Programme d'Appui au Secteur Agricole de Guinée</i> (Guinea Agriculture Sector Support Project)
PASANDAD	<i>Programme Accéléré de Sécurité Alimentaire et Nutritionnelle et de Développement Agricole Durable</i> (Accelerated Program of Food and Nutritional Security, and Sustainable Agricultural Development)
PCIU	Project Coordination and Implementation Unit
PDO	Project Development Objective
PIM	Project Implementation Manual
PNDES	<i>Plan National de Développement Economique et Social</i> (National Economic and Social Development Plan)
PNIASA	<i>Plan National d'Investissement Agricole et de Sécurité Alimentaire</i> (National Agricultural and Food Security Investment Plan)
PNIASAN	<i>Plan National d'Investissement Agricole et de Sécurité Alimentaire et Nutritionnelle</i> (National Agricultural and Food Security and Nutrition Investment Plan)
PPA	Project Preparation Advance
PPSD	Project Procurement Strategy for Development
PREF	<i>Programme de Redressement Economique et Financier</i> (Financial and Economic Recovery Program)
PRMP	<i>Personne Responsable des Marchés Publics</i> (Procurement Officer)
PS	Procurement Specialist
PSC	Project Steering Committee
PUAPA	<i>Projet d'Urgence d'Appui à la Productivité Agricole</i> (Emergency Agricultural Productivity Support Project)
RAP	Resettlement Action Plan
RNAE	<i>Recensement National de l'Agriculture et de l'Elevage</i> (National Agriculture and Livestock Census)

RPF	Resettlement Policy Framework
SAM	Social Accounting Matrix
SCD	Systematic Country Diagnostic
SDG	Sustainable Development Goals
SME	Small and Medium Enterprise
SNPV-DS	<i>Service National de la Protection des Végétaux et des Denrées Stockées</i> (National Service for the Protection of Plants and Commodity Food Stocks)
SORT	Systematic Operations Risk-Rating Tool
USAID	United States Agency for International Development
WAAPP	West Africa Agricultural Productivity Program
WBG	World Bank Group
WUA	Water User's Association



**BASIC INFORMATION**

Country(ies)	Project Name	
Guinea	Guinea Integrated Agricultural Development Project (PDAIG)	
Project ID	Financing Instrument	Environmental Assessment Category
P164326	Investment Project Financing	B-Partial Assessment

**Financing & Implementation Modalities**

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Disbursement-linked Indicators (DLIs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
22-Jun-2018	19-Jun-2023
Bank/IFC Collaboration	Joint Level
Yes	Complementary or Interdependent project requiring active coordination

**Proposed Development Objective(s)**

The project development objective is to increase agricultural productivity and market access for producers and agricultural small and medium enterprises (SMEs) in selected value chains in project areas.

**Components**



Component Name	Cost (US\$, millions)
Component 1: Increasing agricultural productivity	20.37
Component 2: Increasing market access	12.66
Component 3: Strengthening institutional capacity	5.20
Component 4: Project coordination and implementation	4.33

**Organizations**

Borrower: Ministry of Economy and Finance

Implementing Agency: Ministry of Agriculture

**PROJECT FINANCING DATA (US\$, Millions)****SUMMARY**

<b>Total Project Cost</b>	42.58
<b>Total Financing</b>	42.58
<b>of which IBRD/IDA</b>	40.00
<b>Financing Gap</b>	0.00

**DETAILS****World Bank Group Financing**

International Development Association (IDA)	40.00
IDA Credit	40.00

**Non-World Bank Group Financing**

Counterpart Funding	2.58
National Government	1.11
LOCAL: BENEFICIARIES	1.47

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



	Credit Amount	Grant Amount	Total Amount
National PBA	40.00	0.00	40.00
<b>Total</b>	<b>40.00</b>	<b>0.00</b>	<b>40.00</b>

**Expected Disbursements (in US\$, Millions)**

WB Fiscal Year	2018	2019	2020	2021	2022	2023
Annual	0.60	5.00	10.00	10.00	10.00	4.40
Cumulative	0.60	5.60	15.60	25.60	35.60	40.00

**INSTITUTIONAL DATA**

**Practice Area (Lead)**

Agriculture

**Contributing Practice Areas**

Finance, Competitiveness and Innovation

**Climate Change and Disaster Screening**

This operation has been screened for short and long-term climate change and disaster risks

**Gender Tag**

**Does the project plan to undertake any of the following?**

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

**SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)**

Risk Category	Rating
1. Political and Governance	● Substantial





2. Macroeconomic	● Moderate
3. Sector Strategies and Policies	● Substantial
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● High
6. Fiduciary	● Substantial
7. Environment and Social	● Substantial
8. Stakeholders	● Moderate
9. Other	
10. Overall	● Substantial

**COMPLIANCE**

**Policy**

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

Yes  No

Does the project require any waivers of Bank policies?

Yes  No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04		✓
Forests OP/BP 4.36		✓
Pest Management OP 4.09	✓	
Physical Cultural Resources OP/BP 4.11	✓	
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12	✓	
Safety of Dams OP/BP 4.37		✓



Projects on International Waterways OP/BP 7.50

✓

Projects in Disputed Areas OP/BP 7.60

✓

**Legal Covenants**

Sections and Description

Schedule 2. Section I.A.3.(b)(i). Not later than three (3) months after the Effective Date, the grant management specialist, social development specialist, M&E specialist and communication specialist referred to in sub-paragraph 3(a) of Schedule 2. Section I.A.3. shall have been recruited, along with an internal auditor.

Sections and Description

Schedule 2. Section I.A.3.(b)(ii). Not later than six (6) months after the Effective Date, an external auditor shall have been recruited.

Sections and Description

Schedule 2. Section I.A.4. Not later than three (3) months after the Effective Date, the Recipient shall have acquired, installed and customized a computerized accounting software, satisfactory to the Association.

**Conditions**

Type	Description
Effectiveness	The PSC and PIU have been duly established in accordance with the provisions of Section I.A.1 of Schedule 2 to the Financing Agreement, and the key personnel referred to in Section I.A.3 (a) thereof, namely, the director of operations, rural engineer, procurement specialist and accountant, have been duly recruited;
Effectiveness	The Project Implementation Manual has been duly prepared and adopted, in form and substance satisfactory to the Association.
Disbursement	No withdrawal shall be made for Matching Grants under Category 2, unless and until evidence satisfactory to the Association has been provided to the Association that the Matching Grant Manual has been finalized and adopted in form and substance acceptable to the Association;
Disbursement	No withdrawal shall be made for payments made under Category (4) for Emergency Expenditures under Emergency Response Part, unless and until the Association is satisfied, and has notified the Recipient of its satisfaction, that all of the following conditions have



been met in respect of said activities:

- (i) the Recipient has determined that an Eligible Crisis or Emergency has occurred, has furnished to the Association a request to include said activities in the Emergency Response Part in order to respond to said Eligible Crisis or Emergency, and the Association has agreed with such determination, accepted said request and notified the Recipient thereof;
- (ii) the Recipient has prepared and disclosed all safeguards instruments required for said activities, the Association has approved all such instruments, and the Recipient has implemented any actions which are required to be taken under said instruments, all in accordance with the provisions of Section I.E of Schedule 2 of the Financing Agreement;
- (iii) the Recipient's Coordinating Authority has adequate staff and resources, in accordance with the provisions of Section I.E.2 of Schedule 2 of the Financing Agreement, for the purposes of said activities; and
- (iv) the Recipient has adopted a CER Operations Manual in form, substance and manner acceptable to the Association and the provisions of the CER Operations Manual remain - or have been updated in accordance with the provisions of Section I.E.1 (e) of this Schedule so as to be - appropriate for the inclusion and implementation of said activities under the Emergency Response Part.



GUINEA  
GUINEA INTEGRATED AGRICULTURAL DEVELOPMENT PROJECT (GIADP)

**TABLE OF CONTENTS**

<b>I. STRATEGIC CONTEXT .....</b>	<b>1</b>
A. Country Context .....	1
B. Sectoral and Institutional Context .....	2
C. Higher Level Objectives to which the Project Contributes .....	6
<b>II. PROJECT DEVELOPMENT OBJECTIVES.....</b>	<b>8</b>
A. PDO.....	8
B. Project Beneficiaries.....	8
C. PDO-Level Results Indicators.....	8
<b>III. PROJECT DESCRIPTION.....</b>	<b>9</b>
A. Project Components.....	11
B. Project Cost and Financing.....	15
C. Lessons Learned and Reflected in the Project Design .....	15
<b>IV. IMPLEMENTATION.....</b>	<b>17</b>
A. Institutional and Implementation Arrangements.....	17
B. Results Monitoring and Evaluation .....	19
C. Sustainability .....	20
D. Role of Partners.....	21
<b>V. KEY RISKS .....</b>	<b>21</b>
A. Overall Risk Rating and Explanation of Key Risks.....	21
B. Climate Risk Screening .....	23
<b>VI. APPRAISAL SUMMARY.....</b>	<b>24</b>
A. Economic and Financial Analysis.....	24
B. Technical.....	26
C. Financial Management.....	27
D. Procurement .....	28
E. Social (including Safeguards).....	29



F. Environment (including Safeguards) .....	30
G. Other Safeguard Policies.....	32
H. World Bank Grievance Redress.....	32
<b>VII. RESULTS FRAMEWORK AND MONITORING .....</b>	<b>33</b>
<b>ANNEX 1: DETAILED PROJECT DESCRIPTION .....</b>	<b>51</b>
<b>ANNEX 2: FINANCIAL AND ECONOMIC ANALYSIS .....</b>	<b>65</b>
<b>ANNEX 3: GREENHOUSE GAS ACCOUNTING .....</b>	<b>73</b>
<b>ANNEX 4: PROJECT COSTING.....</b>	<b>76</b>
<b>ANNEX 5: INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS .....</b>	<b>77</b>
<b>ANNEX 6: FINANCIAL MANAGEMENT.....</b>	<b>81</b>
<b>ANNEX 7: PROCUREMENT.....</b>	<b>84</b>
<b>ANNEX 8: IMPLEMENTATION SUPPORT PLAN .....</b>	<b>86</b>
<b>ANNEX 9: REFERENCES.....</b>	<b>89</b>
<b>ANNEX 10: MAP .....</b>	<b>90</b>



## I. STRATEGIC CONTEXT

### A. Country Context

- 1. Guinea is endowed with considerable agricultural and mining resources but has yet to mobilize this endowment to achieve sustainable economic growth and poverty reduction.** Despite abundant land and water for agriculture, as well as the world's richest deposits of bauxite and iron, Guinea remains one of Africa's poorest countries, classified among the Low Income and Food Deficit Countries by the World Bank. Most Guineans still live in poverty. At approximately US\$490 in 2016, per capita income in Guinea was less than one-third of the average in Africa region (US\$1,505). Guinea ranks 182<sup>nd</sup> out of 188 countries (with a score of 0.411) in the Human Development Index<sup>1</sup>, and it places in the bottom 10 countries (179<sup>th</sup> of 187) for gender inequality. Guinea's National Gender Policy emphasizes that women are particularly affected by this lack of development, as "they are the least likely to have the skills and resources necessary to realize their rights."
- 2. Guinea's economy has grown too slowly and inconsistently to reduce poverty.** Economic growth started rising in the mid-1980s, partly owing to implementation of the Financial and Economic Recovery Program (PREF).<sup>2</sup> During 1990-97, annual economic growth averaged 4.5 percent, outpacing population growth (3.1 percent). Poverty declined and most social indicators improved.<sup>3</sup> After 2000, however, Guinea experienced a series of internal political crises as well as the negative repercussions of conflicts in neighboring Liberia, Sierra Leone, and Côte d'Ivoire.<sup>4</sup> Economic growth slowed, while the poverty rate increased from 49 percent in 2002 to 53 percent in 2007 and to more than 55 percent in 2012. As in many sub-Saharan African countries, most of the poor in Guinea live in rural areas, where the poverty rate is 65 percent, compared to 32 percent in urban areas (2012). Recent detailed surveys<sup>5</sup> indicate that close to one-third of Guinean households (30.5 percent) are food insecure. Rural citizens, particularly the youth, migrate to cities seeking better incomes, compounding pressure on urban labor markets and infrastructure, which are already overwhelmed. Guinea's population is young, with a median age of 18.6 years, and young people face an exceedingly high level of structural unemployment and underemployment.
- 3. Economic growth resumed after 2010, when presidential elections restored constitutional order.** Macroeconomic policies improved. Structural reforms were carried out in key sectors, and cooperation with external partners resumed in earnest and expanded. Guinea reached the Highly-Indebted Poor Countries Completion Point in 2012, which led to the cancellation of two-thirds of its external debt. Amid these positive developments, the 2013-15 Ebola outbreak struck and devastated economic activity.<sup>6</sup> Growth dropped drastically, falling to 2.4 percent in 2013, 1.1 percent in 2014, and 0.1 percent in 2015. GDP per capita declined by 0.9 percent, 2.1 percent, and 2.2 percent over the same three years. The Ebola outbreak demonstrated Guinea's extreme vulnerability to internal and external shocks that can rapidly erase hard-earned development gains, ravaging the agriculture and food sectors, and deepening entrenched poverty. The recovering economy has shown strong growth,

<sup>1</sup> United Nations Development Programme, Human Development Report, 2015.

<sup>2</sup> *Programme de Redressement Economique et Financier*. Supported by the International Monetary Fund and World Bank, PREF focused on macroeconomic stabilization and liberalization of the economy.

<sup>3</sup> Between 1985 and 1997, primary school enrolment increased from 29 percent to 51 percent, access to primary healthcare from 10 percent to 40 percent, and access to drinkable water from 28 percent to 55 percent.

<sup>4</sup> Guinea recorded more than half-a million refugees.

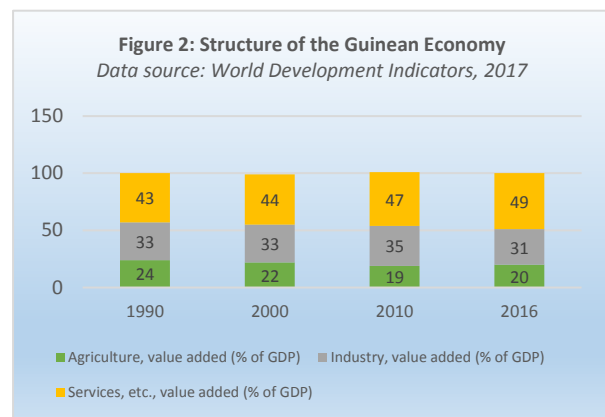
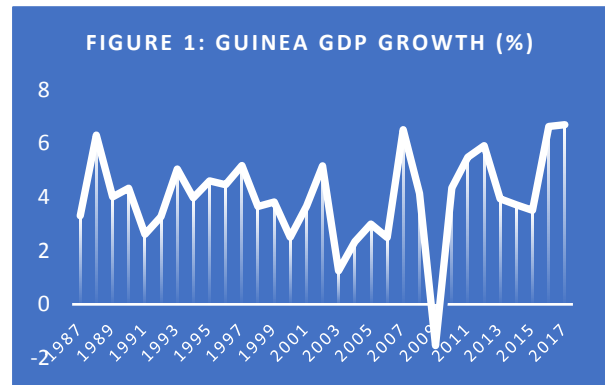
<sup>5</sup> "Evaluation de la sécurité alimentaire en situation d'urgence," PAM (July 2015) and "Guinea, Nutritional Assessment," Feed the Future, USAID, November 2015.

<sup>6</sup> The World Bank estimates that Ebola resulted in a diminution of GDP of 0.7-2.3 percent during 2014-15.



however, with GDP rising by 6.6 percent in 2016 and 6.7 percent in 2017 (Figure 1, data source World Development Indicators, 2017), driven by improved agricultural performance, strong bauxite and gold exports, and a dynamic construction sector.

- 4. **The structure of Guinea’s economy has remained relatively stable since 1990** (Figure 2). Services, mining, and agriculture are the dominant sectors. Agriculture and mining each account for 20 percent of GDP. Guinea’s economy runs a strong risk of becoming subject to the “resource curse” resulting from overreliance on extractive industries. Mining (bauxite, alumina, and gold) generates 80 percent of foreign currency earnings and 20-25 percent of government revenue. In contrast to mining, which provides most of the country’s export revenue but creates little employment (fewer than 200,000 jobs), agriculture employs approximately 52 percent of the active population and provides income for 57 percent of rural households. As a result, sustainable agricultural development is central to Guinea’s economic and social development agenda, and increased investment in the sector<sup>7</sup> is needed to increase productivity and competitiveness, facilitate economic diversification, spur inclusive private sector development, and create jobs.



### B. Sectoral and Institutional Context

- 5. **Guinea’s rich natural resource endowment includes 6.2 million ha of arable land, abundant rainfall, and agro-climatic conditions favoring production of a wide variety of crops.** This considerable potential is underutilized. Only 25 percent of arable land is cultivated, including fallow land, with less than 10 percent cropped every year. Just 32,000 ha have been developed for irrigation,<sup>8</sup> although 360,000 ha are potentially suitable for irrigation.
- 6. **Agricultural growth has been driven by the expansion of cultivated land at an estimated rate of 3 percent per year, consistent with the increase in the rural population.** Farms are small, producing primarily for household consumption and yielding very little marketed surplus. About 70 percent of farms are smaller than 0.5 ha, and subsistence farmers work 95 percent of the total cultivated area.<sup>9</sup> Less than 8 percent of cultivated land is planted with improved seed, and farmers apply only 7 kg of

<sup>7</sup> Along with complementary investments in transport and marketing infrastructure and energy.

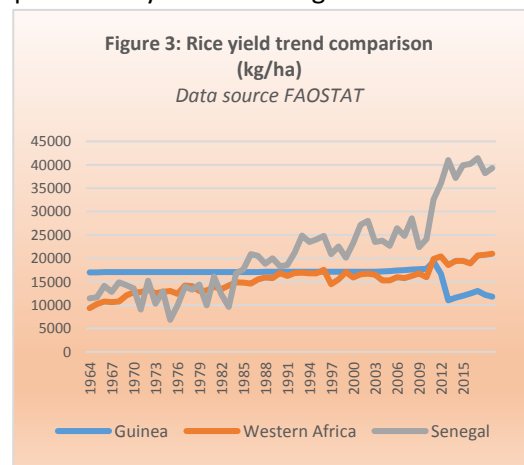
<sup>8</sup> Including 9,000 ha in lowland areas (20 percent of potential), 15,000 ha in mangrove areas (13 percent), and 8,000 ha in flood plains (6 percent).

<sup>9</sup> « Evaluation du Marché de l’agriculture et des chaînes de valeur en Guinée », IFC, 2016.



fertilizer per hectare per year, among the lowest levels of fertilizer use in Africa. In addition to their low productivity, many production areas are cut off from markets for part or most of the year, and post-harvest losses are high<sup>10</sup> due to poor agronomic practices, poor post-harvest handling, lack of storage, and deficient transport services. Processing is negligible and occurs mostly on a small scale. The main food crops are cereals (rice, maize, and fonio), root crops (cassava, yam, sweet potato, and potato), and groundnut. The main cash crops are coffee, cotton, cashew, oil palm, and rubber. The contribution of cash crops to agricultural GDP is still negligible, and exports are low despite high production potential and favorable market opportunities.

7. **Rice is by far the main crop, grown on more than two-thirds of all cultivated land and produced by 80 percent of agricultural households.**<sup>11</sup> Guinea, located in the middle of the West African “rice belt,” has a diverse set of production environments,<sup>12</sup> each with a different set of issues affecting the potential benefits to the intensification of production. Rice yields are very low and have been stagnant for many years (1.5 t/ha for rainfed rice). Rice productivity in Guinea lags far behind the average for West Africa and in immediate neighbors like Senegal (Figure 3, source FAOSTAT). Only about 5 percent of rice producers use improved seed varieties, and even fewer use fertilizer. Rice is also the main food import. Rice imports, valued at around US\$300 million per year, represent about 20 percent of Guinea’s domestic annual rice requirement.<sup>13</sup> Because of its high foreign exchange cost, as well as its importance to food security, rice is the second highest priority crop for the government, after oil palm. Building a competitive domestic rice industry will require investment throughout the supply chain, especially in improving access to high-yielding seed, fertilizer, and crop protection inputs.



8. **Maize, consumed as a secondary staple and used in poultry feed, has considerable growth potential in Guinea.** Guinean maize production has grown by over 13 percent since 2011.<sup>14</sup> The rapidly growing poultry layer subsector is the main market for maize. As climate change constricts the maize production belt in northern Sahelian countries, Guinea, with its more favorable agroecological conditions, has enormous potential to supply this market.<sup>15</sup> This opportunity can be realized only through a process to commercialize production, supported by a vibrant market for private sector inputs (especially seed).

<sup>10</sup> Post-harvest losses are 10 percent for rice, 15-20 percent for maize, 20-45 percent for roots and tubers, and 30-60 percent for fruits and vegetables.

<sup>11</sup> Women play a key role in rice production, processing, and marketing.

<sup>12</sup> Upland rice (63 percent of cultivated rice area), non-irrigated flooded lowlands (19.5 percent), non-irrigated plains (10 percent), mangroves (4.2 percent), irrigated lowlands (3.2 percent), and irrigated plains (0.3 percent).

<sup>13</sup> ITC Trade Map, 2015. Imports totaled over 290,000 tons in 2014, which was a 23 percent increase over the previous year.

<sup>14</sup> GOG ANASA, 2015.

<sup>15</sup> IFPRI 2012, 2015.





9. **The feminization of agriculture is an important phenomenon in Guinea, likely the result of male-dominated migration from rural areas.** A survey of gendered farming practices, financed by the United States Agency for International Development (USAID), was carried out across 425 households in all of Guinea’s agroecological zones. It found considerably fewer men than women farmers between the ages of 20 and 49. One of the six regions (Labé) had four times the number of female farmers than male farmers between the ages of 30 and 34. This trend appears to be linked to the migration of males from rural areas to urban centers and work in the mining industry.<sup>16</sup> The same study finds that although women and men share decisions related to many agricultural activities, women are more likely to be the decision makers for sales and processing while men mostly control the income from those sales. These trends, combined with the fact that significant gender gaps exist in education and literacy, as well as in access to land, other productive inputs (seed, fertilizer, herbicides, finance), and agricultural extension services,<sup>17</sup> indicate the need for gender-specific actions to increase agricultural productivity and commercialization.
10. **Over the past few decades, increasing population pressure has accelerated degradation of the natural resource base,** most visibly in coastal mangrove and forest areas. Climate change has amplified the anthropic factors behind resource degradation. Data since 1960 show a continuous increase in temperature and decline in rainfall, together with increased variability in the start of the agricultural season and more frequent dry spells and floods. Although such trends are difficult to predict, it is anticipated that they will continue, with important negative effects on ecosystems and agricultural production, including an estimated 10-25 percent decline in crop yields by 2050 with no adaptation measures.<sup>18</sup> To mitigate such adverse developments, Guinea has prepared its Intended Nationally Determined Contribution (INDC) under the United Nations Framework Convention on Climate Change (INDC, 2015), which identifies measures for prevention and adaptation, such as (i) increased use of irrigation, (ii) development and dissemination of drought-resistant seed varieties and improved soil and water conservation practices, and (iii) good fish farming practices.
11. **Because Guinea has been unable to capitalize on its agroecological endowments, it is missing out on the positive outcomes that could be generated from trade and a more market-oriented agriculture.** Agricultural exports generate 11 percent of Guinea’s export revenue and are declining, while food products make up 17 percent of imports (*Plan National d’Investissement Agricole et de Sécurité Alimentaire – National Agricultural and Food Security Investment Plan - PNIASA 2013-2017*). The main agricultural exports in 2013 were coffee, cocoa, rubber, cashew, and mango. Cotton, banana, palm oil, and pineapple, once major exports, no longer reach overseas markets. Guinean fruits and vegetables, as well as palm oil, potatoes, and rice, now go only to markets in neighboring countries, which have less certification requirements.
12. **Access to finance is a critical challenge affecting the ability of agricultural producers and other value chain actors** to obtain quality inputs and equipment, and adopt improved technologies. Access

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<sup>16</sup> *Gendered Farming Practices in Guinea: Survey Report*, USAID, Winrock International, and Purdue University, March 2016.

<sup>17</sup> Women’s literacy rate is 40 percent, versus 67 percent for males. Only 2 percent of females are holders of agricultural land (*Guinea Gender Analysis, Feed the Future*, 2016). Few Guinean women have access to extension services to learn more sustainable production practices, nor do they have access to credit for purchasing machinery and inputs (*Gendered Farming Practices in Guinea: Survey Report*, March 2016).

<sup>18</sup> Various models forecast a decline in rainfall of 100-400 mm and an increase in temperature of 1.5-3.0 degrees by 2050.



to financial institutions is nearly non-existent, with only 2 percent of farmers having this privilege. Credit is expensive with interest rates varying from 12 to 20 percent per year.<sup>19</sup>

13. **Guinea’s agricultural value chains are poorly integrated.** The connections between actors in production, processing, transformation, storage, commercialization, and exports are tenuous or nonexistent, and value chains are poorly structured and organized. A new development approach could improve the integration of agricultural value chains by focusing on enhancing upstream and downstream linkages. Such an effort will require strengthening existing producer and professional organizations, including the *Confédération Nationale des Organisations Paysannes de Guinée* (National Confederation of Farmers Organizations, CNOP-G),<sup>20</sup> *Fédération des Paysans du Fouta Djallon* (Fouta Djallon Farmers Federation, FPDF), *Association Nationale des Aviculteurs de Guinée* (Guinea National Association of Poultry Producers), *Fédération des Pisciculteurs de Guinée* (Guinea Federation of Fish Farmers), and others, connecting them to other value chain actors. The Guinean National Chamber of Agriculture, an institution with a business-oriented management, could play a key role in connecting producers to markets, as could the Chamber of Commerce, Industry, and Artisanal activities, which is setting up an observatory of economic operators with 42,000 members already enrolled.
14. **The Government of Guinea recognizes agriculture’s critical role in economic growth and poverty reduction.** It has prepared and implemented a series of agricultural strategies and plans. The most recent are: (i) the PNIASA (2013-17); (ii) the *Programme Accéléré de Sécurité Alimentaire et Nutritionnelle et de Développement Agricole Durable* (Accelerated Program for Food and Nutritional Security, and Sustainable Agricultural Development, PASANDAD, 2016-20); and (iii) the *Plan National de Développement Economique et Social* (National Economic and Social Development Plan, PNDES, 2016-20). PASANDAD is fully integrated into the PNDES and aims at “improving food and nutrition security, accelerating agricultural production (crop, animal, fish and forestry), improving commercialization, storage and processing, and reducing foods imports.” The PNDES targets a primary sector growth rate of 8.1 percent by 2020 by focusing on the development of value chains, a core component of PASANDAD.
15. **A detailed analysis of PNIASA achievements was performed when its successor program for 2018-22 was being prepared** (*Plan National d’Investissement Agricole et de Sécurité Alimentaire et Nutritionnelle*, PNIASAN). This assessment of PNIASA showed that although some positive results were achieved, most of PNIASA’s strategic objectives were not met. Actual growth rates in the sector ranged between 5.3 percent in 2013 and 3.3 in 2016 (Figure 4), well below the PNIASA target of 6 percent.
16. **Progress is being made by the Agriculture Sector Support Project (PASAG, P148114) on strengthening institutional capacity to manage the sector, and by the West Africa Agricultural Productivity Program (WAAPP, P122065) on reinforcing research, regional transfer of innovations and climate-smart technologies to farmers, and rebuilding seed production systems.** Building on these achievements, the proposed project will be instrumental in contributing to increased agricultural productivity (through climate-smart intensification, sustainable mechanization, and

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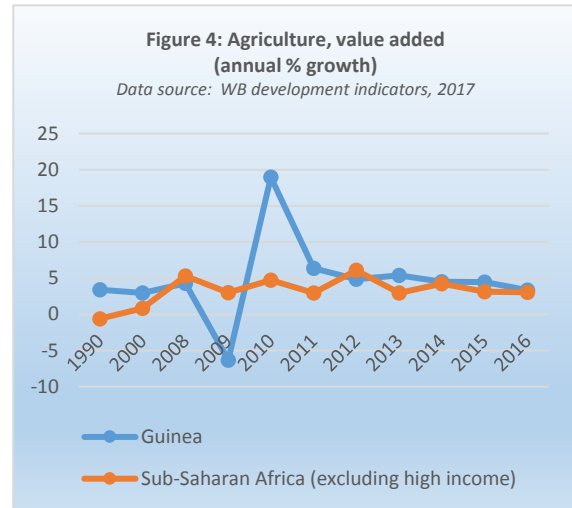
<sup>19</sup> Commercial bank loans are particularly difficult for women to obtain (*Guinea Nutrition Assessment*, USAID Feed the Future, November 2015).

<sup>20</sup> CNOP-G encompasses 390 unions and 19,000 producers’ groups (about 680,000 members).



efficient water management) and improved agro-processing and marketing (by connecting farmers to markets to integrate targeted value chains). It will give special attention to closing the gender gap in access to technology and resources, and in attracting youth to agriculture and agribusiness. The design of the project draws heavily on results of a comprehensive review of the agricultural sector and the Systematic Country Diagnostic (SCD), both completed in 2017.

17. **By realigning its interventions with the PNDES and the PASANDAD, and complementing ongoing operations, the World Bank program will support the development of value chains and the emergence of market-oriented and commercial agriculture.** It will do so through (i) this proposed IDA investment operation, focusing on selected staple crops for domestic and regional markets; (ii) the proposed Fiscal Year (FY) 2019 Guinea Agribusiness Development Project (P164184) focusing on high-potential export crops; (iii) the proposed FY 2019 Guinea Rural Mobility and Connectivity Project (P164543); (iv) the proposed FY 2019 Guinea Electricity Access Scale Up Project (P164225); and (v) FY 2018 Guinea Second Macroeconomic and Fiscal Management Development Policy Operation (DPO, P161796) supporting structural reforms for the governance of the sector.



### C. Higher Level Objectives to which the Project Contributes

18. **The project will contribute to Guinea’s economic and agricultural development agenda and promote poverty alleviation as defined in the PNDES, PNIASAN, and PASANDAD.** It will contribute to PNDES objectives of reducing the incidence of poverty (from 55.2 percent in 2012 to 45.0 percent by 2020) and accelerating growth of the primary sector (8.1 percent by 2020) by focusing on increasing agricultural productivity and strengthening value chains. The project also supports Guinea’s gender policy (*Politique National Genre* -2011) by increasing women’s access to productive resources and income-earning opportunities.
19. **The project will contribute to the achievement of the World Bank Group’s (WBG’s) twin goals of ending extreme poverty and boosting shared prosperity, as well as the realization of the Sustainable Development Goals (SDGs) of no poverty and zero hunger by 2030.** Like other African countries, Guinea—if it is to meet the twin WBG goals and realize the SDGs—must achieve economic growth that is transformational, sustained, inclusive, and pro-poor, capable of lifting the poor six million Guineans, most of whom live in rural areas and depend on agriculture as their main source of livelihood, above the poverty threshold.
20. **The project is aligned with the new WBG-Guinea Country Partnership Framework (CPF, 2018-22), informed by the Systematic Country Diagnostic (SCD) completed in 2017.** The Project supports the third focus area of the World Bank Group’s Country Partnership Framework (2018-2023) related to increasing agricultural productivity and economic growth. The Project will also contribute to three CPF cross-cutting themes: women’s empowerment, economic diversification and resilience. The SCD



links low levels of structural transformation to low agricultural productivity due to the following binding constraints: limited access to quality inputs and finance, poor infrastructure, and low levels of private investment.

21. **The project is also aligned with the WBG approach on maximizing finance for development (MFD).** Commercial agriculture in Guinea is at an early stage of development, with little or no significant private investment in agricultural value chains. The WBG will support the PASANDAD and the PNIASAN by creating the basis to expand the private sector's involvement in production, processing, marketing, and service delivery. A combination of instruments will help to achieve this aim, including reforms under upcoming DPO, and public goods such as basic infrastructure to attract agribusiness investors. The proposed project addresses some of the market failures related to access to inputs, markets, technologies, and services that prevent farmers and small businesses from increasing their competitiveness. By providing public goods, semi-public goods, and services through matching grants and capacity building, the project will help to mobilize domestic private investment, notably in the form of farmers' and SMEs' contributions to the matching grants. These actions will create markets for local providers of goods and services along value chains. Upcoming reforms and the proposed Guinea Agribusiness Development Project (P164184, FY 2019) will enhance approaches that facilitate this dynamic. Increasingly, the government will focus on providing pure public goods and regulations that enhance the private sector increase in agriculture investments (such as agribusiness farming and processing operations).
22. **The project will be consistent with the PNDES and CPF objective of ensuring gender equality and equity by promoting women's economic independence and equitable access to economic resources.** It will reduce gender disparities in the agricultural sector that hold back female productivity and entrepreneurship by (i) facilitating women's access to improved seed varieties and other climate-smart technologies; (ii) targeting capacity-building activities for improved production, processing, and commercialization; and (iii) providing matching grant incentives for productive investments. These activities will contribute to increased productivity and commercial access for female producers and have a long-term impact on household incomes and welfare.
23. **The project will contribute to mitigating the adverse effects of climate change by supporting Guinea's commitments under the INDC.** As such, the project will also contribute to the World Bank Africa Climate Action Plan.
24. **The project will support youth employment, a major concern in Guinea and throughout Africa,** by supporting (i) pillar 3 of the PNDES, which sets the strategic objective of ensuring decent employment and inclusion of vulnerable groups, and (ii) objective 9 of the CPF, related to maximizing access to job opportunities, especially for young people. All told, the project will support youth employment by increasing young men's and women's interest in agriculture and motivating them to seize agribusiness opportunities along the targeted value chains.



## II. PROJECT DEVELOPMENT OBJECTIVES

### A. PDO

25. The project development objective (PDO) is to increase agricultural productivity and market access for producers and agricultural small and medium enterprises (SMEs) in selected value chains in project areas.

### B. Project Beneficiaries

26. **The project's direct beneficiaries include producers, their organizations, and agricultural SMEs involved in the selected agricultural value chains.** The project is expected to directly benefit 150,000 producers.<sup>21</sup> At least 40 percent of the direct beneficiaries will be women, and 30 percent will be youth. In addition, at least 100 SMEs are expected to benefit directly from the project through capacity building and matching grants.

27. **The project's indirect beneficiaries include marketing businesses (wholesalers and retailers), exporters, importers, public and private service providers, government agencies, and non-governmental organizations involved in the selected agricultural value chains.** Actors from diverse ministries and institutions will participate in the project, including the Ministry of Agriculture; the Ministry of Livestock and Animal Production; the Ministry of Fisheries, Aquaculture, and Maritime Economy; the Ministry of Youth; the Ministry of Trade; and the Ministry of Industry, Small and Medium Enterprises, and Private Sector Promotion. The project will seek to strengthen collaboration across these line ministries in addressing issues associated with the selected value chains.

28. **The project is deemed to be gender tagged in terms of analysis, action, and monitoring and evaluation.** The project will help to close gender gaps in access to the productive resources that contribute to economic opportunities. More specifically, it will address gaps in the project areas and sector that limit access to knowledge and improved technologies by (i) targeting women in the diffusion of technologies, best practices, and knowledge through the appropriate access channels and (ii) by strengthening the gender-sensitivity of advisory services (taking into account the mobility and preferences of women and men to ensure targeted outreach). The project will have a strong positive impact on women-owned, small agricultural enterprises, benefiting women in their roles as producers, processors, marketers, and service providers.

### C. PDO-Level Results Indicators

29. **The PDO-level results indicators include:**

- i) Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg, fish).
- ii) Percent increase in volume of market sales of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg, fish).

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<sup>21</sup> See Table A1.3 in Annex 1 for details.



- iii) Number of farmers reached with agricultural assets or services, of which female (at least 40 percent) and youth (at least 30 percent).

### III. PROJECT DESCRIPTION

30. **The design of the project considers the need for Guinea to transform its agricultural sector** by increasing productivity and enhancing resilience to climate change, developing markets, improving competitiveness, and reinforcing infrastructure to foster economic growth and improved food security.
31. The project will focus support on:
- i) **Five selected value chains that are important in terms of production, nutrition security, and income generation.** These priority value chains are rice, maize, poultry (egg), potato, and farmed fish (fresh and smoked). In these five value chains, market opportunities exist and productivity gains can be achieved through the adoption of proven technologies (leveraging those developed and disseminated under the WAAPP), the improvement of water control and management, and the strengthening of linkages among value chain participants.
  - ii) **Selected geographical areas in which there is a critical need to remove binding constraints to productivity, quality, value-addition, and market linkages.** The project will be implemented in up to 10 prefectures<sup>22</sup> (roughly one-third of the country). These prefectures were selected because they constitute major production areas and offer great development potential for the selected value chains. The Rural Mobility and Connectivity Project (P164543, under preparation) will complement and focus its interventions in six of the ten prefectures to improve farmers' ability to access markets. The additional four prefectures are already benefitting from improved market access via the rehabilitation of rural roads funded under ongoing projects by the *Agence Française de Développement* (AFD) and International Fund for Agricultural Development (IFAD). Similarly, the proposed Guinea Electricity Access Scale Up Project (P164225, also under preparation) will address the energy deficit in these areas. These interventions are expected to harness the synergies and compound the positive outcomes of each of the projects.
32. **The project's theory of change is depicted in Figure 5.** The project is expected to increase the adoption of improved technologies—including climate-smart technologies, post-harvest technologies, agricultural machinery, and rehabilitated or developed irrigated perimeters—by the direct beneficiaries, as well as to improve their access to markets. Consequently, the project will increase productivity, enhance resilience, improve product quality, and increase the surplus to be commercialized. Project activities will help to create and enhance business opportunities and encourage entrepreneurial behavior. These outcomes are expected to lead to increased incomes for producers and other operators in the targeted value chains.
33. **The project will encourage women's participation in seed cooperatives, and target female producer associations for participation in the program to multiply improved seed.** While giving both men and women better access to improved technologies to increase agricultural productivity, the project will also connect both men and women producers to buyers to sell the marketable surplus derived from increased productivity, as a way to shift men and women from subsistence-based to

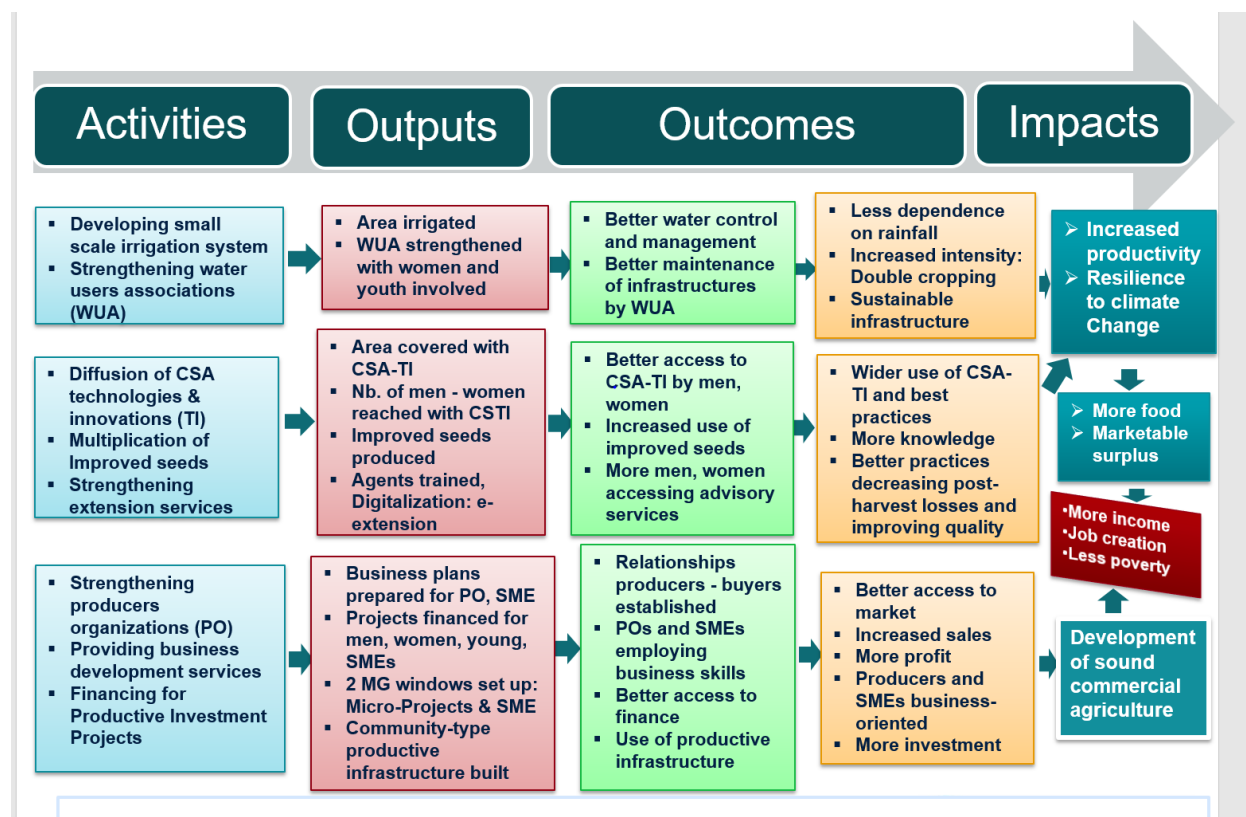
<sup>22</sup> Siguiri, Mandiana, Boké, Labé, Dalaba, Beyla, Pita, Dinguiraye, Dubreka, and Coyah.





market-based agriculture. Priority will be given to women’s groups and women-led SMEs in the capacity-building program to enhance their business skills. These steps will redress some inequalities in terms of entrepreneurship and access to finance. The project’s results framework includes gender-disaggregated results indicators to monitor and evaluate gender impact. To ensure full implementation of the project’s gender approach, a gender action plan will be developed that will (i) identify and map women’s organizations and youth organizations in each of the prefectures and value chains in which the project is active, (ii) perform needs assessments, (iii) identify the gender-specific constraints and scope of existing organizations, (iv) determine specific actions needed to address the needs and constraints, and (v) provide the framework for measuring the outcomes and subsequently-defined impacts of the gender-specific activities. The project is also expected to offer innovative opportunities to youth to help them develop their own businesses.

Figure 5: The theory of change of the project





## A. Project Components

34. The project consists of four interconnected components, organized to address the binding constraints sequentially: (i) increasing agricultural productivity; (ii) increasing market access; (iii) strengthening institutional capacity; and (iv) project coordination and implementation.

**Component 1: Increasing agricultural productivity (US\$20.37 million—US\$20 million (SDR 13.91 million) from IDA, US\$0.35 million from the Government of Guinea, US\$0.02 million from beneficiaries)**

35. The objective of this component is to increase agricultural productivity through climate-smart intensification of selected production systems focusing on enhancing water management and fostering access to improved technologies and innovation. This component comprises two subcomponents.
36. **Subcomponent 1.1: Improving water management (US\$16.03 million—US\$16 million from IDA, US\$0.01 million from the Government of Guinea, US\$0.02 million from beneficiaries).** This subcomponent will contribute to implementation of the irrigation master plan currently being updated in Guinea under the PASAG project. It will improve water management by rehabilitating and/or developing small-scale irrigation schemes for a total of about 3,000 ha, focusing particularly on lowland areas identified in the irrigation master plan. Investments will cover, *inter alia*: (i) civil works for irrigation infrastructure; (ii) adoption of simple, efficient, and labor-saving water management technologies to modernize production systems; and (iii) creation or strengthening of water user's associations (WUAs), including development of management procedures and guidelines for the operation and maintenance of irrigation infrastructure to ensure sustainability. This subcomponent will be implemented by the *Direction Nationale du Génie Rural-DGNR* (National Directorate for Rural Engineering).
37. **Subcomponent 1.2: Increasing access to technology, innovation, and advisory services (US\$4.34 million—US\$4.00 million from IDA, US\$0.34 million from the Government of Guinea).** This subcomponent will finance the widespread adoption of improved, climate-smart technologies and innovation packages, including seed of high-yielding, early-maturing, and drought-resistant varieties, environmentally friendly practices for agricultural intensification in selected production systems (including poultry/egg and fish farming), as well as the promotion of solar-based technologies (replacing wood for processing smoked fish to preserve natural resources and reduce greenhouse gas emissions) and digital solutions for extension services. The direct beneficiaries will be smallholder farmers. The project will finance the transfer and wide diffusion of these technologies and innovations in partnership with producer organizations and research and extension services. In particular, the project will finance: (i) the multiplication of certified seed by cooperatives or firms to increase its availability and lower its cost to farmers; (ii) technical assistance, training, and equipment for public and private advisory services to strengthen technology transfer systems; and (iii) the development of an e-extension platform, using digital solutions and applications to modernize advisory services and extend their reach. Women will be deliberately targeted to receive these technologies and training. This subcomponent will be implemented by the Project Coordination and Implementation Unit (PCIU) in the Ministry of Agriculture, in partnership with the *Agence Nationale*





*de la Promotion Rurale et du Conseil Agricole* (National Agency for Rural Promotion and Agricultural Extension, ANPROCA), other public and private advisory services, and producer organizations.

**Component 2: Increasing market access (US\$12.66 million—US\$11.0 million (SDR 7.65 million) from IDA, US\$0.22 million from the Government of Guinea, US\$1.44 million from beneficiaries)**

38. The objective of this component is to help producers, small-scale processors, and their organizations to increase the production and commercialization of marketable surplus for the targeted agricultural value chains (rice, maize, potato, egg, and fish). Activities will encourage market-oriented behavior, with the goal of linking buyers with sellers whenever possible. Component 2 will: (i) strengthen producer and professional organizations, processors, SMEs, and inter-professional organizations through training, coaching, and mentoring; (ii) provide training and facilitate the preparation of sound business plans; and (iii) contribute to the funding of such business plans through a matching grant mechanism. Women and youth (aged 18-35 years) will benefit from preferential terms for matching grants. Component 2 will be implemented by the PCIU with the support of a specialized firm with experience in delivering technical assistance to small-scale producers and agribusinesses, and organizing agricultural value chain structuring activities. This component is composed of three subcomponents.
39. **Subcomponent 2.1: Strengthening producer organizations (US\$3.21 million—US\$3.0 million from IDA, US\$0.21 million from the Government of Guinea).** This subcomponent will finance institutional support to producer organizations, technical assistance to identify promising markets and obstacles to increasing sales, and the construction of community-managed infrastructure (storage, including drying and processing facilities, and aggregation areas). Working with producer and inter-professional organizations, the project will: (i) establish and/or strengthen professional and inter-professional entities (including producer organizations, cooperatives, women’s and youth groups) with a focus on better governance, and preparation and implementation of their action plans; (ii) organize and fund convening events and other knowledge-sharing activities and tools (demonstrations, publications, instructional videos, radio programs); and (iii) rehabilitate and/or build small, community-managed infrastructure for market access, which is required to increase value chain activity but unlikely to attract private investments. Equal access to this infrastructure for women will be a priority. By working closely with women’s associations to understand characteristics of design and use that are most convenient for their constituents, the project will ensure that these characteristics are present in all community-managed infrastructure. Technical assistance will also help build the skills needed to empower women for management and leadership in producer organizations and will strengthen women-led producer organizations. This subcomponent will be implemented by a specialized firm in collaboration with ANPROCA and apex producer organizations such as CNOP-G. The PCIU will be responsible for the procurement associated with the communally-managed infrastructure.
40. **Subcomponent 2.2: Promoting business development services (US\$1.0 million—US\$1.0 million from IDA).** This subcomponent will finance business development services for individuals and groups of producers and small processors willing to engage in micro-projects (MPs) (including activities such as agricultural intensification, mechanization, small-scale processing, efficiency improvements, marketing and storage investments), as well as for agribusiness SMEs willing to engage in subprojects. Women entrepreneurs and women-led producer organizations will be encouraged to participate through a targeted information campaign. The project will assist the promoters of MPs



and SME-subprojects by helping them develop business plans and coaching them to make their projects successful. This subcomponent will provide technical assistance and capacity building to strengthen technical, entrepreneurial, and management skills of project promoters. Beneficiaries will be accompanied by agriculture/agribusiness advisors (through service providers) that will work with them to customize sound projects and business plans, as well as identify specific capacity-building needs and prerequisites for their success. The SME Business Center created under the Guinea Micro, Small and Medium Size Enterprises Project (P128443) will receive technical assistance to develop into a robust partner providing training services. This subcomponent will be implemented by the PCIU in partnership with the SME Business Center and with support from a specialized firm.

41. **Subcomponent 2.3: Financing productive investment projects (US\$8.44 million—US\$7 million from IDA, US\$1.44 million from beneficiaries).** This subcomponent will provide co-financing and implementation support for the competitively selected investment initiatives of producers, small processors, and marketers (MPs) and groups of investors and agricultural SMEs (SME-subprojects). Subprojects using climate-smart technologies will be strongly encouraged. Project funding will be provided under a single matching grant mechanism composed of two separate windows, each having distinct eligibility criteria, application processes, funding levels, terms, and arrangements defined in manuals approved as a disbursement condition. These windows are:
- i) **Micro-project window (MPs):** This window will co-fund at least 900 MP business plans through a competitive matching grant mechanism for investment micro-projects of up to US\$5,000 in total cost for individuals and up to US\$10,000 in total cost for groups. The MP window will be divided into two sub-windows accommodating individual and group-promoted MPs, respectively. This window will target vulnerable groups, particularly women and youth. MP beneficiaries will be individual producers or groups of producers, agro-entrepreneurs, processors, and marketers contributing at least 20 percent of the project cost in cash or in kind. The project will provide up to 80 percent in matching funds. To receive funds, MP beneficiaries will be required to have a bank account in a Financial Institution (FI), including a commercial bank or micro-financial institution (MFI).
  - ii) **SME subproject window (SME-subproject):** This window will co-fund approximately 50 subprojects through a competitive matching grant mechanism for investments ranging from US\$10,000 to US\$50,000. The project will cover up to 60 percent of eligible expenditures, while the remaining 40 percent will be provided by beneficiaries through cash or through loans from FIs. SME-subproject beneficiaries will be required to have a bank account in an FI (a commercial bank or MFI) to receive funds, as one of the purposes of this mechanism is to develop sustained business relationships between beneficiaries on the one hand and FIs on the other, starting at investment inception. Business plans that incorporate climate-smart technologies will be strongly encouraged.
42. Under both windows, women and youth (18-35 years of age) will receive preferential treatment, particularly rural youth and young professionals who have graduated from agricultural and business schools. These two groups will be required to fund only 10 percent of eligible expenditures under the MP window and 30 percent under the SME-subproject window. A specific communication campaign will be undertaken to increase awareness and stimulate interest in the matching grant program among women and youth. The eligibility and selection criteria, as well as the guidelines for



appraising and approving matching grants for both windows, will be detailed in a Matching Grant Implementation Manual (MGIM) acceptable to the World Bank.<sup>23</sup> The PCIU will be responsible for managing the matching grant program and supervising technical assistance provided through the specialized firm or other providers of technical assistance, monitoring, and results reporting. The PCIU will maintain fiduciary responsibility for all aspects of this activity.

**Component 3: Strengthening institutional capacity (US\$5.20 million—US\$5.0 million (SDR 3.48 million) from IDA and US\$0.20 million from the Government of Guinea)**

43. The objective of this component is to strengthen institutional capacity, focusing particularly on agricultural statistics and planning for a rapid response in the case of severe crises and emergencies.
44. **Subcomponent 3.1: Strengthening the public agricultural statistics system (US\$5.20 million—US\$5.0 million from IDA and US\$0.20 million from the Government of Guinea).** This subcomponent will aim to strengthen the public agricultural statistics system. This is a collaborative effort, with AFD that is providing parallel financial support (US\$6.0 million) and the Food and Agriculture Organization of the United Nations (FAO) providing technical assistance. The IDA financing for this subcomponent will help establish the structural foundations of the agricultural sector through the implementation of Guinea's agricultural and livestock census.<sup>24</sup> This subcomponent will finance consultants, operating costs (for recruiting enumerators, for example), and equipment necessary for (i) developing and testing the methodology; (ii) collecting, entering, processing, and analyzing the data; and (iii) preparing and disseminating reports. Data generation will encompass the production of statistics to be used for adaptation to climate change. The system will be designed to allow production of gender-disaggregated agricultural statistics. This component will be implemented by the *Agence Nationale des Statistiques Agricoles et Alimentaires* (National Agency for Agricultural and Food Statistics, ANASAA) with technical assistance from FAO and specialized firms to be contracted.
45. **Subcomponent 3.2: Contingency Emergency Response (US\$0 million).** Given Guinea's vulnerability to shocks, a Contingency Emergency Response subcomponent (CERC), with a zero-dollar provision, is designed to create a financing mechanism within the project for emergency demands arising from natural disasters and other shocks. If such a crisis develops, the government may request the World Bank to reallocate project funds to cover some costs of emergency response and recovery. The operations manual for the CERC subcomponent is being prepared and will be validated prior to any disbursement under the subcomponent. All expenditures under this CERC will be in accordance with paragraphs 11, 12, and 13 of World Bank OP10.00 (Investment Project Financing). They will be appraised and reviewed to determine if they are acceptable to the World Bank before any disbursement is made. Disbursements will be made against an approved list of goods, works, and services required to support crisis mitigation, response, recovery, and reconstruction.

**Component 4: Project coordination and implementation (US\$4.33 million—US\$4.0 million (SDR 2.78 million) from IDA, US\$0.33 million from the Government of Guinea)**

46. This component aims at ensuring that the project is efficiently managed and monitored, and that performance and outcomes are carefully tracked by the PCIU and the implementing agencies. The main activities will consist of: strategic planning, coordination and management, monitoring,

<sup>23</sup> The availability of this manual will be a disbursement condition under both windows.

<sup>24</sup> Total cost estimated at US\$10 million; the last census was carried out in 2000-01, and the master sample frame is outdated.



evaluation, and communication, and management of safeguard policies. Under this subcomponent, the project will finance: (i) expenses incurred in implementing the project through the PCIU, the participating implementing agencies, and various service providers; (ii) technical assistance provided through consultancies, audits, and training to enhance implementation capacity of the PCIU; (iii) communication, knowledge production and sharing, and outreach activities; (iv) monitoring and evaluation of project outcomes and impacts; (v) citizen engagement; (vi) oversight of social and environmental safeguard policies; and (vii) institutional strengthening to ensure sustainability of the project’s results. This component will be implemented by the PCIU.

### B. Project Cost and Financing

47. The project will be financed over five years through an Investment Project Financing (IPF) in the amount of US\$42.6 million of which US\$40.0 million from IDA, US\$1.1 million from the Government of Guinea and US\$1.5 million from beneficiaries. A Project Preparation Advance (PPA) of USD\$600,000 was mobilized. The project’s cost and sources of financing are summarized in Table 1. Details are provided in Annex 4.

Table 1: Project costs summary (in US\$)

Project components	Project cost	IDA Financing	Beneficiaries	Government
1. Increasing agricultural productivity	20,374,000	20,000,000	21,000	353,000
2. Increasing market access	12,664,000	11,000,000	1,446,000	218,000
3. Strengthening institutional capacity	5,207,000	5,000,000	0	207,000
4. Project coordination and implementation	4,330,000	4,000,000	0	330,000
<b>Total Project Costs</b>	<b>42,575,000</b>	<b>40,000,000</b>	<b>1,467,000</b>	<b>1,108,000</b>

### C. Lessons Learned and Reflected in the Project Design

48. **The design of the project builds on the achievements and lessons learned from the implementation of ongoing<sup>25</sup> and past projects and programs in Guinea, in the region, and elsewhere.** Close coordination and synergy are sought with ongoing and upcoming projects and programs,<sup>26</sup> and approaches are being harmonized to leverage support in critical areas, optimize development outcomes, and avoid duplication. Several rounds of consultation took place with development partners—AFD, European Union (EU), USAID, Belgium Cooperation, and others—to learn from their experiences and to ensure complementarity with their programs.

<sup>25</sup> WAAPP (P122065), PASAG (P148114), Senegal River Basin Multi-Purpose Water Resources Development Project (PGIRE, P131323), and the Niger River Basin Water Resources Development Program in Guinea (P093806).

<sup>26</sup> Mobility and Connectivity Project (P164543); Project to Support SME Growth, Competitiveness, and Access to Finance (ID: 602283); and Guinea Electricity Access Scale Up Project (P164225).



49. **The project design was informed by the findings of a review by the Independent Evaluation Group (IEG) of the Bank's experience in the agricultural sector.**<sup>27</sup> Furthermore, the project drew heavily on recent programs and recently completed and ongoing analytical work in Guinea.<sup>28</sup> Relevant lessons considered in the design of the project include:

- i) **Importance of value chain development and integration.** Beyond achieving increases in on-farm productivity, there is a need to focus on the downstream stages of value chains by connecting farmers to markets and promoting agro-processing. Improving access to markets and strengthening connections with different value chain stakeholders creates incentives to adopt improved technologies and innovations to increase productivity and production.
- ii) **Multisector approach to leverage economic development impact.** Integrating crop production with animal husbandry and fish farming is critical for diversifying smallholders' sources of livelihood and for improving food and nutrition security. At the macro level, a multisector approach will enable better cooperation of the different line ministries in the agricultural sector (crops, livestock, fisheries, forestry) and other cross-cutting line ministries (youth, trade, industry, mining, and so on) for greater development impact.
- iii) **Access to finance for agribusiness development.** Experience from many World Bank-supported programs and projects shows that competitive matching grants, if designed and implemented appropriately, can be effective financial mechanisms to help smallholder farmers and SMEs gradually build their credit history and become bankable.
- iv) **Strong WUAs for sustainability of irrigation infrastructure.** Experiences from many irrigation projects show the importance of having strong WUAs to ensure adequate water management, appropriate operation and maintenance of irrigation infrastructure, and greater sustainability. The project builds on the accumulated experience of the first and the second Senegal River Basin Multi-Purpose Water Resources Development Project (PGIRE, P131323) in Guinea by focusing the development of small-scale irrigation schemes that better target poor communities and by ensuring that the National Directorate for Rural Engineering (DNGR) benefits from sufficient capacity strengthening. The project also draws on the implementation of the first phase of the Niger River Basin Water Resources Development Program in Guinea. The project will also integrate lessons from African Development Bank interventions by paying close attention to the supervision of irrigation works.
- v) **Moving women from subsistence to commercial farming.** Experience shows that increasing productivity and improving access to markets can help producers shift from subsistence to commercial farming. Because women are often left behind in this transition, the project will seek to move women as well as men from subsistence to commercial farming by addressing women's specific needs and constraints, learning from the experiences of WAAPP and others.
- vi) **Designing and implementing a well-defined gender action plan, and ensuring adequate monitoring and reporting on related results, are crucial for gender targeting under Bank-funded operations.** Lessons from recent operations in the region, including the Guinea WAAPP

<sup>27</sup> World Bank assistance to agriculture in Sub-Saharan Africa: an IEG review, 2007.

<sup>28</sup> Agricultural Sector Review, SCD, Social Accounting Matrix (SAM), Guinea Agribusiness Deep Dive with IFC, and other value chains studies with USAID.



(P122065) and the Niger PRODEX (P095210), which reached 41 percent and 43 percent of women-beneficiaries respectively, indicate that a gender action plan, identifying and promoting gender-sensitive activities in all components, with strong encouragement to participate, is a powerful instrument for addressing gender imbalances in accessing project benefits. Such a plan should be developed with relevant stakeholders, including women and youth groups, ideally during project preparation or at the earliest stage of implementation.

## IV. IMPLEMENTATION

### A. Institutional and Implementation Arrangements

#### *Project Oversight*

50. **The Ministry of Agriculture will be responsible for overall project implementation.** It will collaborate closely with other relevant ministries and their respective departments and agencies, including the Ministry of Livestock and Animal Production for activities related to the poultry value chain; the Ministry of Fishing, Aquaculture, and Maritime Economy for small scale fish farming and processing (smoked fish); the Ministry of Youth for project activities targeting youth; the Ministry of Commerce; and the Ministry of Industry, Small and Medium Enterprises, and Private Sector Promotion for project activities focusing on connecting producers to traders and agri-processors.
51. **An inter-ministerial Project Steering Committee (PSC) headed by the Ministry of Agriculture will provide strategic oversight to the project.** The inter-ministerial committee used during project preparation will be maintained and expanded to serve as the PSC during the implementation phase of the project. The committee will meet at least twice a year and will be chaired by the Minister of Agriculture or designated representative. The secretariat of the PSC will be headed by the PCIU in the Ministry of Agriculture. Membership of the PSC will include the Project Coordinator, representatives from the Chamber of Agriculture (as vice-chair), the Chamber of Commerce, Industry and Craft, the Ministry of Economy and Finance, the Ministry of Planning and International Cooperation, the Ministry of Livestock and Animal Production, the Ministry of Fisheries, Aquaculture and Maritime Economy, the Ministry of Youth, the Ministry of Social Action, Women and Children, the Ministry of Commerce, the Ministry of Industry, Small and Medium Enterprises and Private Sector Promotion, the Ministry of the Environment, Water and Forests, the *Agence Guinéenne de Promotion des Exportations* (AGUIPEXE), the *Agence de Promotion des Investissements Privés* (APIP), *Administration et Contrôle des Grands Projets et des Marchés Publics* (Administration and Control of Large Projects and Public Procurement, ACGPMP), the Climate Action Network (CAN), civil society organizations and producer organizations and women's and youth organizations.
52. The main responsibilities of the PSC will include: (i) providing strategic and policy guidance to the PCIU for implementation and coordination of activities; (ii) ensuring overall conformity with government policies and strategies; (iii) reviewing project progress and performance; (iv) approving the annual work plan and budget (AWP&B); (v) resolving implementation problems or conflicts; and (iv) assisting the PCIU in obtaining, whenever needed, government assistance and contributions to the project.





***Project coordination and implementation unit***

53. **The existing WAAPP PCIU in the Ministry of Agriculture oversaw the project preparation and will be responsible for project implementation. Its staffing will be strengthened to meet the specific needs of the project.** Additional staff will include a director of operations; a rural engineer in charge of irrigation infrastructure and WUAs; a grant management specialist; an accountant; a procurement specialist; a social development specialist in charge of social safeguards, gender, and youth; a monitoring and evaluation specialist; a communication specialist; an internal auditor; and support staff. The reinforced WAAPP PCIU will coordinate overall project implementation on a day-to-day basis. It will coordinate and consolidate the AWP&Bs and oversee all other technical implementing agencies. It will be responsible for all fiduciary aspects of the project, including procurement, disbursement, accounting, and financial reporting; for monitoring and evaluation of the project; and for ensuring the auditing of project accounts. The PCIU will also prepare bi-annual reports recording the progress of the project. All project accounts will be audited annually by independent auditors acceptable to IDA and should be submitted to IDA no later than six months after the closing of the fiscal year in Guinea. The PCIU will act as the secretariat for the PSC.

***Project implementing agencies***

54. **Specific implementation arrangements are defined for each component and subcomponent, under the overall oversight of the PCIU.** Results-based partnership agreements will be signed by the PCIU with each directorate or institution in charge of implementing a component or subcomponent. The partnership agreements will define the assigned objectives; annual action plan; obligations and responsibilities of contracting parties; administrative, technical, and financial implementation modalities; date of effectiveness and duration; allocated budget; and categories of eligible expenditures. Through the partnership agreements, the PCIU will delegate to the relevant directorate or partner the technical responsibility for component and subcomponent implementation while maintaining overall fiduciary responsibility. Partnership agreements will be signed by PCIU with the following agencies:
- i) *Direction Nationale du Génie Rural* (National Directorate for Rural Engineering, DNGR) of the Ministry of Agriculture, to implement Subcomponent 1.1 (Water management).
  - ii) *Agence Nationale de la Promotion Rurale et du Conseil Agricole* (National Agency for Rural Promotion and Agricultural Extension, ANPROCA), other public and private advisory services, and producer organizations for the implementation of parts of Subcomponent 1.2 (Increasing access to technology, innovation, and advisory services) and of Subcomponent 2.1 (Strengthening producer organizations).
  - iii) *Agence Nationale des Statistiques Agricoles et Alimentaires* (National Agency for Agricultural and Food Statistics, ANASAA) for the implementation of Subcomponent 3.1 (Strengthening the agricultural statistics system).
55. Component 2 (Increasing market access) will be implemented by the PCIU through contracting arrangements with specialized consulting firms. The PCIU will also work closely with the Chamber of Agriculture; the Chamber of Commerce, Industry and Craft; and representatives from producer organizations. Subcomponents 3.2 and Component 4 will be implemented by the PCIU.



56. Implementation arrangements are described in more detail in Annex 5, and will be further refined in the Project Implementation Manual, and in the Matching Grant Implementation Manual.

***Project implementing manuals***

57. A Project Implementation Manual (PIM) is being prepared and will be completed and validated prior to effectiveness. The PIM details the organizational and technical procedures that govern the project, including financial management, procurement, monitoring and evaluation (M&E), and the Grievance Redress Mechanism (GRM).
58. A separate Matching Grant Implementation Manual (MGIM) will be prepared and validated prior to any grant disbursement. The MGIM will include: (i) eligibility criteria; (ii) co-financing arrangements, including eligible expenditures; (iii) processing cycle and timing; (iv) management responsibilities; (v) training and technical assistance; (vi) fiduciary aspects; (vii) safeguard aspects; and (viii) templates for MP and SME-subproject agreements.
59. The operations manual for the CERC subcomponent is being prepared and will be validated prior to any disbursement under the subcomponent.

**B. Results Monitoring and Evaluation**

60. **A detailed results framework and M&E Plan are presented in Section VII.** The results framework defines the performance indicators and annual targets for the PDO and each component and subcomponent. The PCIU will be responsible for overall M&E of project PDO-level and intermediate results indicators and outcomes as defined in the results framework, and for meeting the agreed reporting requirements. A robust M&E system will be implemented to provide high-quality information, linking technical and financial data on project progress in achieving outcomes and development impact. It will serve as a tool to assess project results and as a day-to-day management tool. The PCIU will collaborate with the *Bureau de Stratégie et de Développement* (BSD) in the Ministry of Agriculture on project monitoring. The BSD is responsible for inter-coordination of agricultural and rural development projects and for ensuring consistency with national sector strategies and policies (PNDES, PNIASAN, PASANDAD).
61. **An electronic and web-based M&E platform will be developed along with smartphone applications to facilitate timely data collection,** using to the extent possible the agricultural advisers from the extension services, who will be trained for this purpose. External digital service providers will be hired to set up the M&E e-system and application. All data collected will be disaggregated by gender and by age (to capture youth participation). The PCIU will work closely with the key implementing agencies to collect baseline data, regularly update data for the key performance indicators, and produce semi-annual progress reports. The PCIU will conduct regular farm surveys over the project's life cycle to measure the PDO indicators.
62. **Iterative Beneficiary Monitoring (IBM).** This activity will monitor beneficiaries of the project starting when implementation begins, with the objective of improving project efficiency and increasing beneficiary satisfaction and engagement. IBM—a light, low-cost, and rapid method for collecting information on project implementation—is problem oriented and complements project supervision. IBM collects data directly from beneficiaries but keeps data collection efforts to a minimum by relying





on a few research questions and small samples. The various iterations of IBM will collect data to identify shortcoming that can hinder implementation of the project and provide feedback to the project team for catalyzing improvements in implementation. While a traditional M&E system will be used to continuously monitor overall implementation progress and produce reports on progress every six months, IBM, which is demand-driven, will produce short reports, be repeated as often as needed, and focus on diagnosing specific barriers to effective implementation.

63. **The World Bank team will conduct bi-annual Implementation Support Missions (ISMs)** jointly with the Government of Guinea and key stakeholders to assess the status of project progress and outcomes, ensure compliance with legal covenants, and provide recommendations to keep the project on track toward achieving its PDO. The ISMs will include field visits to allow the government and World Bank to assess and discuss project progress with beneficiaries and assess their satisfaction with project activities. Civil society organizations will be involved to build citizen engagement and promote communication of project outcomes. A Mid-Term Review will be conducted no later than June 30, 2021. A final independent evaluation will be conducted in the last year of project implementation to assess overall achievement of expected outcomes and draw lessons.
64. **The M&E section of the PIM provides details related to the results framework**, including the definitions of indicators, the methodology and the instruments to be used for data collection, the institutional arrangements for M&E functions (identification of actors and definition of their respective responsibilities), the GRM, and the mechanism to be used for disseminating information.

### C. Sustainability

65. **Project preparation benefitted from strong commitment and ownership by the Government of Guinea**, as reflected by the involvement of high-level authorities from diverse line ministries. This involvement is a promising sign with respect to implementation and sustainability. The proposed project is aligned with national agricultural development agenda as defined in the PASANDAD, PNIASAN and PNDES.
66. **Sustainability of the activities supported through the project will be enhanced by factors built into the project's design and implementation arrangements, including:**
  - i) Engaging public institutions as implementing agencies and strengthening their capacity to deliver and fulfill their respective mandates, beyond the project's life cycle.
  - ii) Reinforcing extension agents and advisory service providers with equipment and capacity to develop and use digital technologies to reach a maximum number of producers for continuous and wide dissemination of technologies.
  - iii) Building capacity of WUAs and strengthening their organizational structure for the efficient use, management, and maintenance of the irrigation infrastructure and equipment provided under the project.
  - iv) Contributing to improved competitiveness of selected value chains by improving productivity and enhancing quality through better access to improved agricultural technologies, including seed of improved varieties, post-harvest technologies, and processing equipment.
  - v) Providing a matching grant scheme with beneficiary contributions to ensure ownership.



- vi) Creating linkages between beneficiaries and FIs using a matching grant mechanism, which will allow beneficiaries to start building a credit history.
- vii) Partnering with the Rural Mobility and Connectivity Project to develop basic public transport infrastructure to improve connectivity between production areas and markets.

#### D. Role of Partners

67. **The project is financed by IDA with contributions from the Government of Guinea and beneficiaries.** The agricultural census and statistics production initiative will benefit from parallel financing provided by AFD and will be implemented with technical support from FAO and other specialized firms to be contracted. The project will build partnerships with other projects and donors within and outside the WBG. It will be implemented closely with other ongoing projects, including WAAPP, PASAG, and the proposed Rural Mobility and Connectivity Project (P164543, FY 2019). It will also partner with the upcoming IFC-funded Project to Support SME Growth, Competitiveness, and Access to Finance (ID: 602283, FY 2019). During implementation, the WBG will seek out opportunities to harness synergies with other donors that are financing agricultural projects, including AFD, the EU, USAID, IFAD, Belgium Cooperation, and FAO.

### V. KEY RISKS

#### A. Overall Risk Rating and Explanation of Key Risks

68. **The project overall risk is rated substantial.** Table 2 summarizes the evaluation of potential risks associated with the project.
69. **Political and governance risk is rated substantial.** Guinea has a turbulent political history. With elections planned for 2018-20, the potential for a difficult transition exists. This risk will be mitigated through using the well-seasoned WAAPP PCIU to plan for efficient project start-up and by establishing a solid base for execution prior to the presidential campaign and election. A PPA is being used to finance background studies, prepare project manuals, select required project staff and begin procurement.

**Table 2: Risks and ratings**

Risk Category	Rating
1. Political and Governance	Substantial
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project	Moderate
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Moderate
<b>OVERALL</b>	<b>Substantial</b>



70. **Macro-economic risk is assessed as moderate, given the predicted positive economic growth (6.7 percent).** Guinea has a stable exchange rate control, and the Central Bank is an effective, well-managed organization. While Guinea’s economy generates significant mining exports, it is more diversified than other economies in the region, yet it remains vulnerable to external shocks. To mitigate these risks, the project makes provisions for funding to address emergency demands arising from natural disasters or other shocks.
71. **Risk related to sector strategies and policies is assessed as substantial.** The government has articulated comprehensive strategies and programs for developing the agricultural sector and agribusiness. Extensive studies, value chain analyses, and other analyses have been performed to identify shortcomings and propose solutions. A robust set of agricultural and private sector development activities are underway that are consistent with national strategies. This project will be integrated with national strategies as well. Nevertheless, there is a risk of dispersion of efforts because of a lack of priority setting and a history of ad hoc changes in priorities. Strong coordination of interventions and an effective M&E framework are required to mitigate this risk. The project will coordinate with the government as well as with development partners to identify avenues for collaboration and leveraging efforts.
72. **Issues with governance and the rule of law could affect the profitability of agribusiness** (examples include inadequate contract enforcement, arbitrary trade policies like export bans, exemptions and unpredictable enforcement of tariffs and non-tariff regulations). These problems and the remedies that the government should implement have been raised in the Diagnostic Trade Integration Study Update<sup>29</sup>. Low capacity to implement reforms and insufficient political will could make it difficult to address some of these constraints, despite the heavy cost they impose on the private sector, particularly agricultural SMEs. Aside from compounding the obstacles that the project seeks to diminish, these constraints significantly increase the risk and cost of lending and discourage financial institutions from providing credit to agribusinesses. As a mitigation measure, the project anticipates complementary activities from the Finance, Competitiveness, and Innovation (FCI) global practice, the Macroeconomics, Trade, and Investment (MTI) global practice, the IFC Advisory group, and the government to address the business environment and investment climate constraints that harm agribusinesses.
73. **Technical design risk is rated moderate.** The project simultaneously addresses productivity and market access, thereby involving the participation of different stakeholders along the value chain. As mitigation measures, large consultations were organized during project preparation to inform and engage the different stakeholders. As an added measure, the PCIU will be staffed with the specific technical expertise required to ensure smooth technical implementation.
74. **Institutional capacity for implementation and sustainability risk is rated high.** Institutional strengthening and capacity building are the most frequent requests from ministries that face a deficient or aging workforce close to retirement. Successful implementation of the project will require significant capacity. The project requires the involvement of different categories of stakeholders, including producer organizations, public services, private investors, and service providers, many of whom will need capacity building to play their roles. To mitigate this risk, project

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<sup>29</sup> World Bank. 2015. *Guinea Diagnostic Trade Integration Study (DTIS) Update*



implementation arrangements are based on a PCIU's capacity to coordinate activities, with support from public institutions selected as executing agencies. This arrangement proved to be effective for implementation of WAAPP, PASAG, and PUAPA-2. The project will build partnerships with non-governmental organizations and civil society organizations engaged with youth employment initiatives. Guinea has a strong national Chamber of Agriculture with business-oriented management, which could provide support for expanding youth entrepreneurship and connecting producers to markets. In addition, project staff and public institutions will receive training and capacity building. Regular and pro-active ISMs will be organized. Attention will be paid to developing adequate maintenance systems for, and fostering ownership of, infrastructure and logistics assets financed by the project to guarantee sustainability. A specialized firm will be contracted to support the implementation of Component 2 (Increasing market access), given the relative novelty of some of its activities in Guinea.

75. **Fiduciary risk is rated substantial.** The Ministry of Agriculture has started (through its PCIUs) to gain experience in managing World Bank-financed projects. To mitigate fiduciary risk, an existing PCIU (WAAPP) with a proven track record will be used to implement the project. In addition, measures have been included to reinforce the internal control environment and the timeliness and reliability of reporting by the PCIU. The fiduciary team will be strengthened with additional qualified staff (senior accountant, internal auditor, and procurement specialist) and trained in World Bank financial procedures and the New Procurement Framework. A PIM, with a procurement section, is being developed. A modern filing system acceptable to IDA will be set-up in the PCIU.
76. **Environmental and social risk is rated substantial.** Social risk is rated substantial because project-supported activities could result in land acquisition (for farming and the construction of small agricultural infrastructure), which may trigger involuntary resettlement (physical and economic displacement) of local populations. To ensure compliance and manage social risk, a capacity assessment will be undertaken and mitigation measures put in place by the PCIU. The environment risk rating reflects the fact that experience with Bank-financed projects is relatively limited, and there is a risk of delayed implementation (for irrigation infrastructure in particular) because environmental and social due diligence may be significant. World Bank Environmental Safeguards staff will provide relevant capacity-building support to the project's environmental safeguard specialist.
77. **Stakeholder risk is rated moderate.** The project design is the result of a participatory exercise involving all stakeholders, including producers, producer organizations, leaders of the Chamber of Agriculture, SMEs, women's groups, youth groups, and non-governmental and civil society organizations.

## B. Climate Risk Screening

78. **Guinea's climate is characterized by a dry season of four to seven months, followed by a rainy season of five to eight months.** Rainfall is abundant—ranging from 1,200 mm (Upper Guinea) to 4,200 mm (Lower Guinea)—and water resources are considerable, with over 19,000 m<sup>3</sup>/year/capita of renewable freshwater resources in comparison with a sub-Saharan Africa average of less than 4,000 m<sup>3</sup>/year/capita. Nevertheless, Guinea is vulnerable to climate change. The climate risk screening shows that while Guinea's abundant rains can lead to flooding during the rainy season, the country can face simultaneous drought in other regions. According to Guinea's INDC and the World Bank's Climate Change Knowledge Portal, the four major climate change risks affecting the country



include: (i) an overall increase in average temperatures; (ii) extreme precipitation leading to flooding; (iii) a drop in average annual rainfall, especially in North-West and North-East Guinea, together with a change in the frequency and intra-year distribution of precipitation; and (iv) rising sea levels (around 80 cm by 2100). Most of these climate risks pose potential impediments to the goal of increasing agricultural productivity and production.

79. **Overall, climate risk is moderate.** The irrigation infrastructure and diffusion of climate smart technologies (such as drought-resistant seed varieties) planned under the project will help to mitigate these risks and increase agricultural productivity and farmers' resilience to climate change.

## VI. APPRAISAL SUMMARY

### A. Economic and Financial Analysis

80. The aim of the economic and financial analysis is to clarify the rationale for public investment and to determine whether the project is financially and economically profitable and sustainable. Market prices are used for the financial analysis. The economic analysis uses the economic cost, which reflects the financial cost and additional flows to value-added taxes and other transfers, such as personal income taxes, corporate income taxes, import duties, and production subsidies. The analysis assumes a macroeconomic environment with price and exchange rate stability.
81. The project beneficiaries are primarily agricultural producers and SMEs involved in the production, processing, and marketing of agricultural commodities in five value chains: rice, maize, poultry (egg), potato, and farmed fish. The project will generate a variety of direct and indirect financial and economic benefits accruing to different groups of beneficiaries. Some of these benefits are possible to estimate with reasonable accuracy. Indirectly, family members of direct beneficiaries and citizens in the project area will derive benefit from the increased economic activity and spending of direct beneficiaries, the improved services available from public and private organizations, and the ability to avail themselves of enhanced productive assets in the project area.
82. The estimates of financial and economic benefits are based on cash flows modeled over ten years. Estimates are displayed for rice production from planned irrigation infrastructure, and also for the overall project. The effect of irrigation infrastructure is expected to start materializing by the second year of project implementation. Finally, using a discount rate of 6 percent, the financial net present value (FNPV) and the economic net present value (ENPV) were computed for the irrigated rice activities and for the project overall.
83. **Financial analysis.** Based on the financial cash inflows derived from project activities, the project should increase income for the communities where it operates. The project is financially sound and should generate significant financial profits over a ten-year horizon, as shown by the positive FNPVs and by a financial internal rate of return (IRR) that is much higher than the interest rate in the financial market (Table 3). This result is not unexpected, as numerous studies have shown that agricultural activities are profitable in Guinea if water is well managed, and quality inputs and best practices are used.



84. **Economic analysis.** The economic analysis displays a positive ENPV both for irrigated rice and for the overall project. The economic IRRs are much higher than the opportunity cost of capital in large public investments (17-25 percent). This result suggests that the project is economically sound (Table 3).

**Table 3: Financial and economic analysis results**

Activities	Parameters	Financial analysis	Economic analysis	Economic analysis with carbon benefit
Irrigated rice	Net present value (USD)	8,320,930	14,822,783	10,910,189
	Internal rate of return (%)	19	32	26
Overall project	Net present value (USD)	19,723,489	26,225,341	49,997,018
	Internal rate of return (%)	23	31	51

85. **Greenhouse gas accounting.** The net carbon balance quantifies GHGs emitted or sequestered because of the project compared to the without project scenario. Over the project duration of 20 years, the project constitutes gross GHG emissions of **-1,878,259 tCO<sub>2</sub>-eq** and net GHG emissions of **-2,393,661 tCO<sub>2</sub>-eq**. The project provides a sink of **119,683 tCO<sub>2</sub>-eq** per year. Following World Bank guidance, these benefits have been valued at a social value of carbon that is increasing over time in real value from **US\$35 per tCO<sub>2</sub>-eq in 2020 to US\$50 per tCO<sub>2</sub>-eq in 2030**. The economic soundness of the project is further confirmed by the high ENPV and IRR attained when the social cost of carbon is reflected in the economic analysis (Table 3). In addition, the climate co-benefit assessment showed that the project’s total climate co-benefit amounts to US\$14.17 million (35.4 percent).

86. **Sensitivity analysis.** Sensitivity analysis based on positive and adverse scenarios (two high and two low scenarios) confirms the robustness of results of the assessment (see Table 4). Annex 2 presents a more detailed discussion of the financial and economic analysis and the related assumptions.

**Table 4: Results of the sensitivity analysis**

Scenario	Economic analysis		Financial analysis	
	IRR (%)	ENPV (US\$)	IRR (%)	FNPV (US\$)
Base Case	31	26,225,341	23	19,723,489
<u>High 1:</u> 10 percent more beneficiary businesses reached by project and 10 percent greater number of hectares for rice over base case.	37	32,049,077	27	24,906,470
<u>High 2:</u> Higher impact on net income of beneficiary businesses and 10 percent higher margin for rice over base case.	38	33,002,898	29	26,103,761
<u>Low 1:</u> 10 percent fewer beneficiary businesses, and 10 percent fewer hectares for rice over base case.	26	20,451,760	19	14,540,508
<u>Low 2:</u> Lower impact on net income of beneficiary businesses and 20 percent lower margin for rice over base case.	12	6,059,943	6	352,660

87. **Rationale for public sector financing:** Neither private nor public capital is available in sufficiently large amounts to provide adequate financing for small producers, processors, and agribusinesses, particularly for entrepreneurs seeking to carry out more innovative investments that may have high economic, financial, and social returns but that also feature high levels of risk. The lack of capital is a significant obstacle to agricultural producers, even those working together in associations, to increase their marketable surplus and take advantage of market opportunities. The minimal options



for capacity building and services that could help these beneficiaries engage in business activities also emphasize the need for public investment. Public investment in support of agribusiness will increase competitiveness of these producers and agricultural SMEs, decrease investment risk, and encourage private investment. Using the MFD approach, the proposed project addresses some of the market failures related to access to inputs, markets, technologies, and services that prevent farmers and small businesses from increasing their competitiveness. By providing public goods, semi-public goods, and services through matching grants and capacity building, the project will help to mobilize domestic private investment, notably in the form of farmers' and SMEs' matching grant contributions. These actions will create markets for local providers of goods and services along value chains. Upcoming reforms and a proposed agribusiness project will further enhance private participation in the development of agricultural value chains. Increasingly, government spending will focus on pure public goods and regulations.

88. **Value added of World Bank support:** Government and donor interventions to develop the agricultural sector, increase productivity, and enable small producers, have not yet created the conditions to engender the structural change that Guinea requires to participate adequately in dynamic, rapidly growing domestic and regional markets. By its strong presence and engagement in Guinea, along with its ability to mobilize relevant experience from throughout sub-Saharan Africa and elsewhere in the world, the World Bank is in a unique position to aggregate knowledge and mobilize the efforts of development partners to unlock Guinea's potential to produce, process, market, and export agricultural products. IDA financing will support the much-needed strengthening of producer and inter-professional organizations, businesses, and public service providers, as well as encourage private investments in agriculture.

## B. Technical

89. **The rationale for the project's technical design, and the relevance of that design, derive from:**

- i) ***Alignment of the design with the national development agenda:*** The project will contribute directly to the implementation of the national agricultural development agenda defined in the PASANDAD, PNIASAN and PNDES.
- ii) ***Contributions from an extensive body of evidence, experiences, and lessons learned in the domains of agriculture and value chains:*** The technical design of the project is informed by knowledge and empirical evidence from extensive analytical work on the agricultural sector and values chains. The project design also builds on experience and lessons from WAAPP, PASAG, the Second Emergency Agricultural Productivity Support Project (PUAPA-2, P128309), and other development partners' programs, as well as guidance captured from large consultations with value chain stakeholders.

90. ***An innovative, integrated, and inclusive approach.*** The major innovation in the design of the project is the integration and the inclusiveness of the approach used, including:

- i) ***A multisector approach*** that considers agriculture as a whole, focusing on the diverse nature of farm household livelihoods and bringing together the different line ministries active in the sector (crops, livestock, fisheries) to build synergies and better coordinate actions for improved development outcomes.





- ii) **A market-oriented approach** integrating agricultural value chain actors by connecting producers to buyers to promote sound commercial agriculture. The project will increase productivity and competitiveness by strengthening producer organizations and improving access to improved technologies, markets, and productive infrastructure, including domestic processing for quality gains and value addition.
- iii) **A gender approach targeting both men and women as key players in the selected value chains.** As discussed, the project will identify specific needs of men and women participating in the selected value chains and will help close the gender gaps in accessing productive resources and economic opportunities. The project will be instrumental in increasing women’s economic empowerment through appropriate avenues to increase their access to inputs (improved seed and climate-smart technologies and innovations), knowledge and skills (including business skills), and markets so they can increase their productivity and revenue, and transition from subsistence to market-oriented agriculture.
- iv) **An inclusive approach that targets youth to reap the demographic dividend.** Making agricultural business opportunities attractive to young men and women calls for investment—in modern technologies, infrastructure, and equipment to reduce costs and increase the efficient use of inputs, water, and land—as well as market development. By working with the Ministry of Youth to reinforce other ongoing government initiatives and provide the right support, the project will develop an innovative business model for youth insertion in agribusiness through a competitive matching grant mechanism and a program to develop technical and managerial skills.
- v) **A digital approach for more efficiency,** using digital technologies to rebuild agricultural advisory services and statistical systems. The project will contribute to (i) establishing an e-extension service using smartphones and (ii) developing digital applications to build a strong M&E system for systematic updates of project performance indicators. The project will also contribute to rebuilding the agricultural statistics system and will support the agricultural census using a digital platform and tools for generating and regularly updating reliable statistics.

### C. Financial Management

- 91. A financial management (FM) assessment of the implementing entity (the WAAPP PCIU) was conducted in February 2018. The objective of the assessment was to determine whether the PCIU has acceptable FM arrangements in place to ensure that project funds will be used only for intended purposes, with due attention to considerations of economy and efficiency. The assessment complied with the World Bank’s directives on FM (Financial Management Manual for Investment Project Financing, effective March 1, 2010 and last revised on February 10, 2017).
- 92. The PCIU of the ongoing WAAPP-1C (P122065) will have overall fiduciary responsibility for the project and will use the same FM arrangements in place under WAAPP. The PCIU is familiar with the World Bank FM requirements and the overall performance of the WAAPP FM function is satisfactory.
- 93. The overall FM risk for the project is rated substantial. To maintain the timeliness and reliability of information produced by the PCIU, and for an adequate segregation of duties, (i) an accountant with qualifications and experience satisfactory to the Bank will be recruited as a condition of effectiveness





and fully dedicated to the accounting and disbursements tasks of this project; (ii) the PIM, including fiduciary procedures, will be prepared to include specific arrangements related to the new project; (iii) accounting software will be customized; and (iv) an internal audit function will be put in place. The internal auditor (individual consultant) with qualifications and experience acceptable to the Bank will be recruited on a competitive basis within three months of effectiveness. The scope of work of the internal auditor will include the Bank-financed projects implemented by the Ministry of Agriculture. These four mitigation measures are dated covenants and should be implemented within three months following the effectiveness of the project. The PCIU will also recruit an external auditor within six months of effectiveness.

94. It is expected that the FM arrangements will fully satisfy the Bank's minimum requirements once mitigation measures have been implemented. Annex 6 includes an FM Action Plan to enhance FM arrangements for the project.

#### **D. Procurement**

##### **Procurement rules and procedures**

95. Procurement for works, goods, and non-consulting and consulting services for the project will be carried out in accordance with the procedures specified in the "World Bank Procurement Regulations for IPF Borrowers," dated July, 2016 and revised November, 2017 (Procurement Regulations) and the "World Bank Anti-Corruption Guidelines: Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants," dated October 15, 2006 and revised in January 2011, July 1, 2016, as well as the provisions stipulated in the Financing Agreement.
96. All goods, works, and non-consulting services will be procured in accordance with the requirements set forth or referred to in Section VI-Approved Methods: Goods, Works and Non-Consulting Services of the Procurement Regulations. The consulting services will be procured in accordance with the requirements set forth, or referred to, in Section VII-Approved Selection Methods: Consulting Services of the Procurement Regulations, the Project Procurement Strategy for Development (PPSD), and Procurement Plan, approved by the World Bank. The Procurement Plan, including its updates, shall include for each contract: (i) a brief description of the activities/contracts; (ii) selection methods to be applied; (iii) cost estimates; (iv) time schedules; (v) the Bank's review requirements; and (vi) any other relevant procurement information. The Procurement Plan covering the first 18 months of project implementation was reviewed and approved prior to negotiations. Any updates of the Procurement Plan will be submitted for the Bank's approval. The Recipient shall use the Bank's online procurement planning and tracking tools (STEP) to prepare, clear, and update its Procurement Plans and conduct all procurement transactions.

##### **Requirements and Actions for National Open Competitive Procurement**

97. When procurement is done on the national market, as agreed in the Procurement Plan, the country's own procurement procedures may be used with the requirements set forth or referred to in paragraphs 5.3 to 5.6 related to National Procurement Procedures. For Guinea, the requirements for national open competitive procurement are presented in Annex 7.



### **Project Procurement Strategy for Development (PPSD)**

98. The PPSD identifies the risks, strengths, and weaknesses of the parties involved in project procurement activities. The project will finance procurement of agricultural equipment, IT equipment, vehicles, irrigation works, and consultants' services. The PPSD (including the Procurement Plan) was reviewed and approved by the Bank prior to negotiations. The PPSD describes how fit-for-purpose procurement activities will support project operations for the achievement of project development objectives and deliver value for money. The strategy summarizes procurement risk, presents a risk mitigation action plan and market analysis, and summarizes procurement approaches.

### **Frequency of Procurement Reviews and Supervision**

99. The Bank's pre- and post-reviews will be carried out based on thresholds indicated in the Procurement Plan. The Bank will conduct ISMs every six months and annual Procurement Post Reviews (PPR). The Bank may also conduct an Independent Procurement Review (IPR) at any time up to two years after the closing date of the project.

## **E. Social (including Safeguards)**

100. **Social risks management:** Although physical displacement is not expected under the project, OP/BP 4.12 on Involuntary Resettlement is triggered for two main reasons: (i) as a precaution to ensure that all MPs and SME subprojects approved under Component 2 (Increasing market access) are sound and sustainable from a social safeguards point of view; and (ii) because economic displacement of project-affected populations may occur. Such economic displacement may lead to requirements for land acquisition as compensation for lost assets or loss of livelihoods due to future investments as well as mitigation measures that consider potential social risks and impacts of the projects. Every MP and SME-subproject will undergo an environmental and social screening, and any MP and SME-subproject activities that will result in involuntary resettlement as defined by the Bank will be assessed. Expectations from beneficiary and non-beneficiary communities could be overly high regarding the overall benefit from the project intervention, and they should be effectively and efficiently managed during implementation. The breadth, depth, and type of analysis from a social safeguard standpoint depends on the nature, scale, and potential social impacts of the proposed MP and SME-subproject and requires the preparation of a Resettlement Policy Framework (RPF). The RPF addresses requirements under the World Bank's Social Safeguard Policies on involuntary resettlement (OP/BP 4.12) as well as the Government of Guinea's laws and regulations on social safeguards. The RPF provides clear guidance on minimizing land acquisition and resultant economic displacement; compensating project-affected persons; rehabilitating livelihoods; addressing grievances; and implementing the RPF through Resettlement Action Plans (RAPs) as needed by fully detailing the operational process of undertaking resettlement. If displacement does occur in any of the MPs and SME-subprojects, RAPs or Abbreviated Resettlement Action Plans (ARAPs), for the specific MP and SME-subproject will be prepared following the guidelines set out in the project's RPF. The resettlement process is meant to be inclusive to encompass vulnerable social groups and guarantee that they receive equitable treatment. The RPF was prepared, cleared and disclosed in-country on April 24, 2018 and through the World Bank website on May 5, 2018.



101. **Gender inclusion:** The project's design is expected to have positive social outcomes and emphasize inclusive participation. A key social aspect of the project is its impact on women. Given the fact that women are primary producers and caregivers in project communities, their role in implementing and ensuring the sustainability of the proposed activities cannot be over-emphasized. The project will (i) increase women's economic opportunities; (ii) provide appropriate services to women; and (iii) establish gender-disaggregated baseline data to measure the impact and results of the project. The structure of the project activities targeting women will be informed by their preferences and mobility constraints. The project will carry out a gender assessment in the project areas at the beginning of implementation to reveal constraints in access to inputs and productive resources, and gender-based preferences in access to inputs.
102. **Youth:** Guinea is one of the 30 countries that have the world's youngest populations.<sup>30</sup> Guinea's demographic profile has a significant youth bulge: more than 74 percent of the population is below the age of 30, 61.6 percent of the population is under the age of 25, and 42.2 percent is under the age of 15. Joblessness is the main problem facing Guinean youth. The government estimates youth unemployment at over 60 percent. Without an integrated plan to educate Guinean youth and provide employment opportunities for them, the country's demographic dividend will not materialize and may turn into a source of tension and conflict. Since women and youth are the main intended beneficiaries of the project, youth employment will be mainstreamed in project activities, with a focus on the targeted communities. While the size of the youth cohorts is increasing, their insertion in the labor market is important to boost local economic development within communities and contribute to social stability across the country.
103. **Citizens' engagement:** The government will undertake a series of beneficiary consultations to include, *inter alia*, key activities such as gender-representative consultations in all beneficiary communities. A community monitoring system will be implemented and complemented by a GRM that will allow project beneficiaries to submit questions, complaints, or suggestions via email, phone, text message, or regular mail. The project will incorporate a comprehensive citizen's engagement strategy, to be developed following community meetings prior to the identification of any works. The strategy will include semi-annual consultations throughout the duration of the project to share project progress and identify problem areas. In addition, the IBM is a feedback mechanism that will monitor beneficiaries of the project, starting when implementation begins, with the objective of improving project efficiency and increasing beneficiary satisfaction and engagement.

## F. Environment (including Safeguards)

104. **Environmental Assessment Category and safeguard policies triggered:** Potential adverse environmental impacts of the project could derive from activities to be supported under Components 1 and 2 and include but are not limited to water management and building or rehabilitating storage facilities. Because potential environmental and social adverse impacts and risks of the project are expected to be moderate and mostly site specific, with no significant or long-term negative impacts, the project is regarded as Category B (Partial Assessment) and triggers the following environmental policies in addition to OP/BP 4.12 under social safeguards: (i)

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<sup>30</sup> <https://www.worldatlas.com/articles/the-youngest-populations-in-the-world.html>



Environmental Assessment OP/BP 4.01; (ii) Pest Management OP 4.09; (iii) Physical Cultural Resources OP/BP 4.11; and (iv) Projects on International Waterways OP/BP 7.50.

105. **Environmental Assessment OP/BP 4.01:** Specific sites/locations for the subprojects are not yet identified at this stage, so a framework approach has been adopted. An Environmental and Social Management Framework (ESMF) has been prepared by the borrower, cleared by the World Bank and the *Bureau Guinéen d'Etude et d'Evaluation Environnementale* (Guinean Environmental Study and Assessment Office, BGEEE),<sup>31</sup> and disclosed in-country on April 24, 2018 and through the World Bank website on May 5, 2018. The Borrower has ensured a meaningful consultation process during the preparation of the safeguards instruments.
106. **Pest Management OP 4.09:** Project activities will likely increase the use of chemical pesticides, which could have negative environmental and health impacts. An Integrated Pest and Pesticides Management Plan (IPPMP) was prepared to mitigate this risk and disclosed in-country on April 24, 2018 and through the World Bank website on May 5, 2018. A significant consideration, however, is that the project will support the diffusion of environmentally-friendly agricultural practices, including integrated pest management practices combining chemical and biological control of pests and diseases to support sustainable agriculture. The project will collaborate with the *Service National de la Protection des Végétaux et des Denrées Stockées* (National Service for the Protection of Plants and Food Stocks, SNPV-DS) to implement the IPPMP.
107. **Physical Cultural Resources OP/BP 4.11:** The proposed operation will involve excavations and movement of earth to build irrigation infrastructure. During the development of the ESMF, physical cultural resources were taken into consideration and baselines defined. The ESMF includes clear procedures required for the identification and protection of cultural property from theft and the treatment of discovered artifacts, and it will be included in standard bidding documents. The ESMF also provides procedures for handling unforeseen situations or discoveries that may arise during implementation.
108. **Projects on International Waterways OP/BP 7.50:** This policy is triggered because some of the sites proposed for the rehabilitation of irrigation and drainage infrastructure are in the Niger River, Senegal River, or Kolenté River basins. Because the project is financing the rehabilitation of existing small-scale schemes, however, and does not finance works that would change the nature or expand the scope of the original schemes in those three river basins, an exception to the Riparian Notification Requirement under OP 7.50 has been granted<sup>32</sup>. To avoid any impact on riparian countries, the few new schemes to be developed will be located in lowland areas and will source water from rivers that are not tributaries to international waterways. The World Bank team will work closely with the government and the relevant respective basin authorities to ensure full compliance with the policy.
109. **Institutional arrangements for implementing safeguards:** The PCIU will have a qualified, full-time Social Development Specialist and a qualified, full-time Environmental Safeguard Specialist with the role and responsibility of ensuring the project's compliance with social and environmental

<sup>31</sup> The national environmental agency of Guinea.

<sup>32</sup> The exception to the Riparian Notification requirement under OP 7.50 (Projects on International Waterways) was granted by the Regional Vice President of the Africa Region on May 4, 2018.



safeguards. The BGEEE has extensive experience monitoring World Bank-funded operations in Guinea and has continuously dealt with World Bank safeguard policies, both in terms of project preparation and implementation. All subprojects will be systematically subject to safeguard screening, which will determine which safeguard instruments are relevant for the subproject's environmental and social risks and impacts and its mitigation measures. The PIM will detail the safeguard screening and mitigation processes, gender-based violence management measures, and the GRM.

110. **Technical feasibility studies and site-specific safeguard studies:** The consultants in charge of carrying out the technical feasibility studies will work closely with the PCIU and the consultants preparing the site-specific environmental safeguard instruments to avoid implementation delays.
111. **Consultation and disclosure:** During preparation of the safeguard instruments, the main stakeholders were consulted in the project areas and also in Conakry during the national validation workshop. The final safeguard documents have been made accessible to the key stakeholders, including sector ministries both in Conakry and in the regions. The main stakeholders will be consulted systematically through the life of the project, based on the consultation plan that will be prepared and implemented.
112. **Environmental and Social safeguards monitoring:** Regular monitoring reports on the implementation of environmental and social safeguard provisions will be provided to the World Bank for approval. These reports will be verified during project ISMs, which will include environmental and social safeguard experts.

#### G. Other Safeguard Policies

113. No other safeguard policies are triggered for the Project.

#### H. World Bank Grievance Redress

114. Communities and individuals who believe that they are adversely affected by a World Bank-supported project may submit complaints to existing project-level grievance redress mechanisms or the World 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 complaint to the World Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, visit [www.inspectionpanel.org](http://www.inspectionpanel.org).



## VII. RESULTS FRAMEWORK AND MONITORING

### Results Framework

#### Project Development Objective(s)

The project development objective is to increase agricultural productivity and market access for producers and agricultural small and medium enterprises (SMEs) in selected value chains in project areas.

PDO Indicators by Objectives / Outcomes	DLI	CRI	Unit of Measure	Baseline	Intermediate Targets				End Target
					1	2	3	4	
<b>Increase agricultural productivity and market access for producers and SMEs in selected value chains</b>									
Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish)			Percentage	0.00	0.00	5.00	10.00	15.00	20.00
Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish) - Rice			Percentage	0.00	0.00	10.00	20.00	30.00	30.00
Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish) - Potatoes			Percentage	0.00	0.00	5.00	10.00	20.00	20.00
Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish) - Maize			Percentage	0.00	0.00	5.00	10.00	20.00	20.00
Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish) - Egg			Percentage	0.00	0.00	5.00	10.00	20.00	20.00



PDO Indicators by Objectives / Outcomes	DLI	CRI	Unit of Measure	Baseline	Intermediate Targets				End Target
					1	2	3	4	
Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato , egg and fish) - Fish			Percentage	0.00	0.00	5.00	10.00	20.00	20.00
Percent increase in volume of market sales of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg, fish)			Percentage	0.00	0.00	20.00	30.00	40.00	40.00
Farmers reached with agricultural assets or services		Yes	Number	0.00	10,000.00	40,000.00	80,000.00	130,000.00	150,000.00
Farmers reached with agricultural assets or services - Women			Number	0.00	4,000.00	15,000.00	30,000.00	50,000.00	60,000.00
Farmers reached with agricultural assets or services - Youth			Number	0.00	3,000.00	10,000.00	20,000.00	40,000.00	45,000.00

Intermediate Results Indicators by Components	DLI	CRI	Unit of Measure	Baseline	Intermediate Targets				End Target
					1	2	3	4	
<b>Component 1: Increasing agricultural productivity</b>									
Area provided with new/improved irrigation or drainage services		Yes	Hectare(Ha )	0.00	0.00	0.00	1,500.00	3,000.00	3,000.00
Number of operational water user's associations created and/or strengthened			Number	0.00	0.00	0.00	25.00	50.00	50.00



Area under improved technologies diffused by the project		Hectare(Ha )	0.00	5,000.00	10,000.00	30,000.00	40,000.00	50,000.00
Number of users of improved technologies diffused by the project (disaggregated by gender)		Number	0.00	5,000.00	25,000.00	50,000.00	75,000.00	100,000.00
Number of users of improved technologies diffused by the project - Women		Number	0.00	2,000.00	10,000.00	20,000.00	30,000.00	40,000.00
Number of agricultural technicians trained (disaggregated by gender)		Number	0.00	500.00	700.00	800.00	1,000.00	1,000.00
<b>Component 2: Increasing market access</b>								
Number of Micro-Projects financed with Matching Grant		Number	0.00	0.00	200.00	600.00	900.00	900.00
Number of Subprojects financed through the Matching Grant for Small and Medium Enterprises (SMEs)		Number	0.00	0.00	20.00	50.00	50.00	50.00
Number of producers, agri-entrepreneurs and SMEs trained (disaggregated by gender and youth)		Number	0.00	0.00	500.00	1,000.00	1,500.00	2,000.00
Number of producers, agri-entrepreneurs and SMEs trained - Youth		Number	0.00	0.00	200.00	400.00	600.00	600.00
Number of producers, agri-entrepreneurs and SMEs trained - Women		Number	0.00	0.00	200.00	400.00	600.00	600.00
Number of producers, agri-entrepreneurs and SMEs trained - SMEs		Number	0.00	0.00	50.00	100.00	100.00	100.00
<b>Component 3: Strengthening institutional capacity</b>								
Agricultural and livestock census completed		Yes/No	N	N	N	N	Y	Y
<b>Component 4: Project coordination and implementation</b>								





Beneficiary satisfaction rate with services and assets provided by the project (by gender and youth)			Percentage	0.00			70.00	80.00	80.00
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Indicators to be mapped	DLI	CRI	Unit of Measure	Baseline	End Target
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**Intermediate Outcome Indicators**

**Monitoring & Evaluation Plan: PDO Indicators**

<b>Indicator Name</b>	Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish)
<b>Definition/Description</b>	This indicator measures the average productivity gain in terms of average percent increase in yield for the targeted products achieved by project direct beneficiaries. The end project target is an average percent yield increase of at least 20 percent.
<b>Frequency</b>	End of each cropping season or production cycle
<b>Data Source</b>	Monitoring and Evaluation data collect system
<b>Methodology for Data Collection</b>	Physical measurement of current production per hectare using GPS and application in smart phone
<b>Responsibility for Data Collection</b>	PCIU



<b>Indicator Name</b>	Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish) - Rice
<b>Definition/Description</b>	This indicator measures the average productivity gain in terms of average percent increase in yield for rice achieved by project direct beneficiaries. The end project target is an average percent yield increase of at least 30 percent.
<b>Frequency</b>	End of each cropping season
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Physical measurement of current production per hectare using GPS and application in smart phone
<b>Responsibility for Data Collection</b>	PCIU
<b>Indicator Name</b>	Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish) - Potatoes
<b>Definition/Description</b>	This indicator measures the average productivity gain in terms of average percent increase in potato yield achieved by project direct beneficiaries. The end project target is an average percent yield increase of at least 20 percent.
<b>Frequency</b>	End of each cropping season
<b>Data Source</b>	Monitoring and Evaluation and data collection system
<b>Methodology for Data Collection</b>	Physical measurement of current production per hectare using GPS and application in smart phone
<b>Responsibility for Data Collection</b>	PCIU



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<b>Indicator Name</b>	Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg and fish) - Maize
<b>Definition/Description</b>	This indicator measures the average productivity gain in terms of average percent increase in maize yield achieved by project direct beneficiaries. The end project target is an average percent yield increase of at least 20 percent.
<b>Frequency</b>	End of each cropping season
<b>Data Source</b>	Monitoring and Evaluation and data collection system
<b>Methodology for Data Collection</b>	Physical measurement of current production per hectare using GPS and application in smart phone
<b>Responsibility for Data Collection</b>	PCIU



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<b>Indicator Name</b>	Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato , egg and fish) - Egg
<b>Definition/Description</b>	This indicator measures the average productivity gain in terms of average percent increase in egg laid per 1000 hens and per cycle of six months, achieved by project direct beneficiaries. The end project target is an average percent yield increase of at least 20 percent.
<b>Frequency</b>	Annually from year 2
<b>Data Source</b>	Monitoring and evaluation data collection system
<b>Methodology for Data Collection</b>	Physical measurement of the increase of number of eggs produced per 1000 hens per cycle of six months
<b>Responsibility for Data Collection</b>	PCIU in partnership with Ministry of livestock



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<b>Indicator Name</b>	Percent increase in yield of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato , egg and fish) - Fish
<b>Definition/Description</b>	This indicator measures the average productivity gain in terms of average percent increase in fish farmed yield per hectare achieved by project direct beneficiaries. The end project target is an average percent yield increase of at least 20 percent.
<b>Frequency</b>	Annually from year 2
<b>Data Source</b>	Monitoring and Evaluation and data collection system
<b>Methodology for Data Collection</b>	Physical measurement of fish yield per hectare using digital application developed in smart phones.
<b>Responsibility for Data Collection</b>	PCUI in partnership with Ministry of Fisheries, Aquaculture Directorate



<b>Indicator Name</b>	Percent increase in volume of market sales of targeted products achieved by project direct beneficiaries (disaggregated by product: rice, maize, potato, egg, fish)
<b>Definition/Description</b>	This indicator measures the percent increase in the volume of sales of targeted products achieved by direct beneficiaries. It will be in percent increase in ton metrics for rice, maize, potato and fish and number of egg tray for eggs. The percent increase in the volume of sales is calculated as the ratio of the volume of the incremental sales (volume of sales by direct beneficiaries during the reporting year (Ni) minus the total volume of sales in the baseline year (N0)) and the value of sales at baseline time 100: $(Ni - N0) / N0 * 100$ . The data will be disaggregated by gender.
<b>Frequency</b>	End of each agricultural campaign/season
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registry from direct beneficiaries recording sale periodically. Develop digital application in smart phones to collect data from registry.
<b>Responsibility for Data Collection</b>	PCIU



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<b>Indicator Name</b>	Farmers reached with agricultural assets or services
<b>Definition/Description</b>	
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	Project Coordination and Implementation Unit (PCIU)
<b>Indicator Name</b>	Farmers reached with agricultural assets or services - Women
<b>Definition/Description</b>	Number of female farmers direct beneficiaries of the project either beneficiaries of project assets or services
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU



<b>Indicator Name</b>	Farmers reached with agricultural assets or services - Youth
<b>Definition/Description</b>	Number of youth (18-35 years age) direct beneficiaries of the project either by benefiting from assets or services.
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones.
<b>Responsibility for Data Collection</b>	PCIU

**Monitoring & Evaluation Plan: Intermediate Results Indicators**

<b>Indicator Name</b>	Area provided with new/improved irrigation or drainage services
<b>Definition/Description</b>	
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Physical measurement of area in hectare using GPS and digital application in smart phone
<b>Responsibility for Data Collection</b>	PCIU





<b>Indicator Name</b>	Number of operational water user's associations created and/or strengthened
<b>Definition/Description</b>	Number of operational water user's associations newly created and or strengthened.
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of water user's associations in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCUI
<b>Indicator Name</b>	Area under improved technologies diffused by the project
<b>Definition/Description</b>	Area under improved technologies diffused by the project including improved varieties of seeds, agricultural machinery, best cropping practices, improved plant protection, etc.
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Physical measurement of area in hectare using GPS and digital application in smart phone
<b>Responsibility for Data Collection</b>	PCIU



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<b>Indicator Name</b>	Number of users of improved technologies diffused by the project (disaggregated by gender)
<b>Definition/Description</b>	This indicator measures the number of beneficiaries using any of the improved technologies diffused by the project
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU
<b>Indicator Name</b>	Number of users of improved technologies diffused by the project - Women
<b>Definition/Description</b>	Number of women using any of the improved technologies diffused by the project
<b>Frequency</b>	Yearly
<b>Data Source</b>	Monitoring and Evaluation
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU



<b>Indicator Name</b>	Number of agricultural technicians trained (disaggregated by gender)
<b>Definition/Description</b>	Number of agricultural technicians trained working on the targeted value chains including technicians from ANPROCA, and other public advisory services (livestock and veterinary, fish farming). The indicator will be gender disaggregated and at least 30% of trained have to be women.
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU
<b>Indicator Name</b>	Number of Micro-Projects financed with Matching Grant
<b>Definition/Description</b>	This indicator measures the number of Micro-Project financed for individuals and groups of producers , processors, marketers and any other value chains actors through the matching grant mechanism. The data will be disaggregated by groups and individuals as well by youth (at least 30%), and gender (at least 40%).
<b>Frequency</b>	Annually from year 2
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU



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<b>Indicator Name</b>	Number of Subprojects financed through the Matching Grant for Small and Medium Enterprises (SMEs)
<b>Definition/Description</b>	Number of sub-projects financed for Small and Medium Enterprises (SMEs) through the Matching-Grant mechanism
<b>Frequency</b>	Annually from year 2
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU
<b>Indicator Name</b>	Number of producers, agri-entrepreneurs and SMEs trained (disaggregated by gender and youth)
<b>Definition/Description</b>	Number of producers, agri-entrepreneurs and SMEs trained disaggregated by gender and youth (18-35 years)
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU



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<b>Indicator Name</b>	Number of producers, agri-entrepreneurs and SMEs trained - Youth
<b>Definition/Description</b>	Number of young producers and agri-entrepreneurs trained (18-35 years)
<b>Frequency</b>	Annually from year 2
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU with support from specialized firm recruited
<b>Indicator Name</b>	Number of producers, agri-entrepreneurs and SMEs trained - Women
<b>Definition/Description</b>	Number of female producers and agri-entrepreneurs trained
<b>Frequency</b>	Annually
<b>Data Source</b>	Monitoring and evaluation and data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU



<b>Indicator Name</b>	Number of producers, agri-entrepreneurs and SMEs trained - SMEs
<b>Definition/Description</b>	Number of Small and Medium Enterprises (SMEs) trained
<b>Frequency</b>	Annually from year 2
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Registration of beneficiaries in a data base using digital application developed in smart phones
<b>Responsibility for Data Collection</b>	PCIU with support from specialized firm recruited
<b>Indicator Name</b>	Agricultural and livestock census completed
<b>Definition/Description</b>	This indicator measures the completion of the country agricultural and livestock census (RNAE). The RNAE should be completed by year 4 of the project (2022)
<b>Frequency</b>	Annually to track progress
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Assessment of progress reports. Review meeting with ANASAA, AFD, FAO and the specialized firm hired to assess progress made.
<b>Responsibility for Data Collection</b>	PCIU in partnership with ANASAA



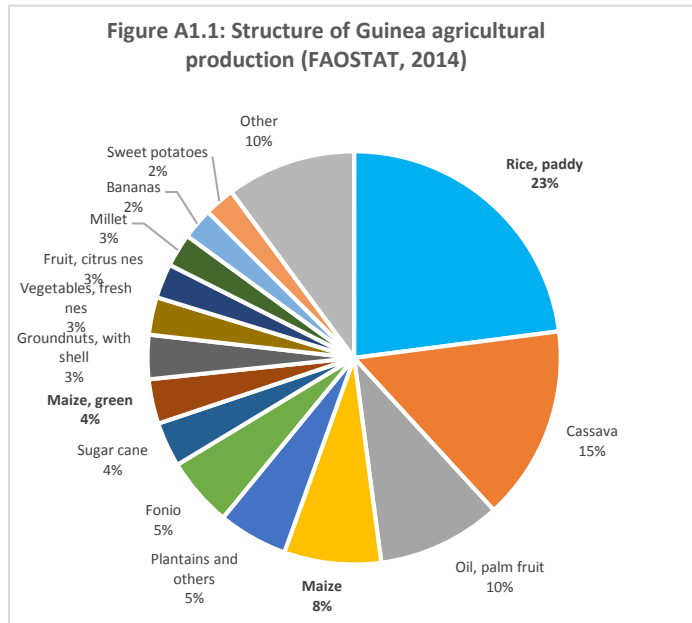
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<b>Indicator Name</b>	Beneficiary satisfaction rate with services and assets provided by the project (by gender and youth)
<b>Definition/Description</b>	This indicator measures the level of satisfaction of the beneficiaries with the different services and assets provided by the project. The data will be disaggregated by gender and youth (18-35 years) to measure the level of satisfaction of men, women and youth with the project. The target is at least 80% of the beneficiaries satisfied with project interventions by the end.
<b>Frequency</b>	Annually from year 3
<b>Data Source</b>	Monitoring and Evaluation data collection system
<b>Methodology for Data Collection</b>	Survey of beneficiaries from year 3 using digital application developed in smart phones using data base of beneficiaries already set up..
<b>Responsibility for Data Collection</b>	PCIU



**Annex 1: Detailed project description**

1. The design of the project considers the growing need for Guinea to transform its agricultural sector by increasing productivity and resilience to climate change, integrating value chains, developing markets, improving competitiveness, and reinforcing infrastructure to foster economic growth and improve food security and nutrition. With the increasing concern for youth employment, this transformation is also critical to enable agriculture to offer attractive business opportunities to youth.
2. The project will focus on five value chains selected for their important role in assuring food and nutrition security and generating income: rice, maize, poultry (eggs), potatoes, and farmed fish (fresh, dry, and smoked). Rice and maize are the major cereal crops produced in Guinea, with rice accounting for almost one-quarter of national food production and maize (including green maize) accounting for approximately 12 percent (Figure A1.1). Rice alone is the source of about 38 percent of daily food consumption. In these value chains, market opportunities exist and productivity gains can be achieved by improving water management, adopting proven technologies (leveraging those disseminated under WAAPP), and strengthening linkages between producers and buyers. Preliminary results from IFC’s agribusiness deep dive study indicate the existence of significant market opportunities and point to the potentially high development impact of investments in, and increased competitiveness of, these value chains (Table A1.1).



**Table A1.1: Development impact of investments, targeted market, and competitiveness in five value chains targeted by the Guinea Integrated Agricultural Development Project**

Value chain	Development impact of investment	Targeted market	Competitiveness
Rice	High	Local	Low (but with local market potential)
Maize	High	Local; regional	Medium / promising
Poultry (eggs)	Medium	Local; regional	High
Potato	Medium	Local; regional	High
Farmed fish (fresh, smoked)	Medium	Local; regional	High

Source: Guinea Agribusiness deep dive preliminary results, IFC, 2018. Completed by authors.

3. The project will be implemented in up to 10 prefectures out of 33 in the country (one third), providing significant coverage at the national level (see Table A1.2). The selected prefectures represent major production areas and offer great potential for the development of the selected agricultural products.





The proposed Transport, Mobility, and Connectivity Project (P164543, under preparation) will focus its interventions in six of these ten prefectures to improve producers’ access to markets, with the remaining four prefectures benefiting from rural road rehabilitation projects funded by AFD and IFAD. Synergies are also expected with the proposed Guinea Electricity Access Scale Up Project (P164225), which will focus on the same prefectures to address energy issues that impede increased marketing of agricultural commodities.

**Table A1.2: Prefectures selected for the Guinea Integrated Agricultural Development Project**

Prefecture	Value chain
1) Siguiri	Rice, fish farming, poultry
2) Mandiana	Rice, maize, poultry
3) Boké	Rice, fish farming, poultry
4) Labé	Maize, potatoes, poultry
5) Dalaba	Potatoes, fish farming, poultry
6) Beyla	Rice
7) Pita	Potatoes
8) Dinguiraye	Maize
9) Dubreka	Poultry
10) Coyah	Poultry

- The project is expected to increase productivity and production, increase marketing of selected commodities, improve product quality, increase efficiency in processing and marketing, and reduce post-harvest losses. In turn, these projected outcomes are expected to increase incomes for producers and other operators for the targeted agricultural commodities. The project activities will help create and enhance business opportunities and encourage entrepreneurial behavior that will contribute directly to the reduction of rural poverty, as production is dominated by poor smallholders. Furthermore, the project is expected to have a strong positive impact on women and women-owned small agricultural enterprises who are expected to benefit as producers, processors, marketers, and service providers. The project is also expected to offer innovative opportunities of interest to youth.
- The project will apply a market-oriented approach to improving the capabilities of beneficiaries and developing markets. The project will focus on increasing marketable surplus and strengthening linkages between producers and buyers. Project activities will be organized by agricultural commodity and discrete project area. Together, these two dimensions form “systems” that define specific producers, markets, and other actors.

**Project Beneficiaries**

- The project’s direct beneficiaries include producers, their organizations, and SMEs engaged in agribusiness in the selected agricultural value chains. The project is expected to benefit 150,000 producers directly, including men, women (at least 40 percent), and youth (at least 30 percent), as well as their organizations. Also, at least 100 SMEs are expected to benefit directly from the project through capacity building and matching grants. Table A1.3 displays the breakdown of beneficiaries by component and subcomponent.



**Table A1.3: Beneficiaries for the Guinea Integrated Agricultural Development Project**

Components	Estimated number of beneficiaries	Assumptions/comments
<b>Component 1: Increasing agricultural productivity</b>	<b>143,000</b>	
<i>Sub-component 1.1: Improving water management</i>	5,000	Between 0.25 ha and 2 ha per beneficiary, depending on the irrigation models
<i>Sub-component 1.2: Increasing access to technology, innovation and agricultural advisory services</i>	3,000	Potatoes: 3,000 producer beneficiaries of technology transfer
	45,000	Maize: seed multiplication – 1,000 tons in 2 harvests - 50,000 producers with 20 kg/ha per producer of which 5000 beneficiaries of irrigation (50,000-5,000)
	75,000	Rice: seed multiplication – 1,500 tons in 3 harvests: 75,000 producers, each with 20 kg/ha under Intensive Rice Production Systems (SRI)
	10,000	Dissemination of climate-smart technologies and innovations and agricultural equipment: 10,000 beneficiaries
	1,000	Users of communally-managed infrastructure (storage, drying, and processing platforms)
	1,000	Training of Agricultural Advisory Services Technicians: 1,000
	1,000	Fish farming training: 1,000 beneficiaries
	1,000	Beneficiaries of aquaculture activities: 50 ponds x 20 beneficiaries per pond = 1,000
	1,000	Training of women fish-smokers: 1,000
<b>Component 2: Increasing market access</b>	<b>7,850</b>	
	1,250	Strengthening producer and inter-professional organizations: 10 associations per value chain (5) x 25 members each
	300	SME beneficiaries: 100 x 3 beneficiaries per SME=300
	6,300	Beneficiaries of individual matching grants (MP) 900*7 members = 6,300
<b>Estimate of total number of beneficiaries</b>	<b>150,850</b>	

**Project Components**

- The project consists of four interconnected components, organized to remove constraints and address priorities sequentially: (i) increasing agricultural productivity; (ii) increasing market access; (iii) strengthening institutional capacity; and (iv) project coordination and implementation.
- Component 1: Increasing agricultural productivity (US\$20.37 million—US\$20.00 million (SDR 13.91 million) from IDA, US\$0.35 million from the Government of Guinea, and US\$0.02 million from beneficiaries).** The objective of this component is to increase agricultural productivity through climate-smart intensification of selected production systems focusing on enhancing water management and increasing access to improved technologies and innovations. All activities will mainstream gender and youth issues, notably to attract youth to agriculture production, improve



women's access to technologies, and alleviate women's work burden. This component comprises two subcomponents.

9. **Subcomponent 1.1: Improving water management (US\$16.03 million—US\$16.00 million from IDA, US\$0.01 million from the Government of Guinea, and US\$0.02 million from beneficiaries:** This subcomponent will draw on the recommendations of the national irrigation master plan currently being updated under the PASAG project. It will improve water management by rehabilitating and or developing small scale irrigation schemes for a total of about 3,000 ha, focusing particularly on lowland areas identified in the irrigation master plan. The focus on lowland and small-scale irrigation systems is aligned with the National Strategy for the Development of Rice Farming. Investments will cover, *inter alia*: (i) civil works for irrigation infrastructure; (ii) adoption of simple, efficient, and labor-saving water management technologies to modernize production systems; and (iii) the creation or strengthening of WUAs and the development of management procedures and guidelines for the operation and maintenance of irrigation infrastructure to ensure its sustainability. Men as well as women and youth groups will be involved in the WUAs. The National Directorate for Rural Engineering (DNGR) will implement this subcomponent.
10. **Irrigation site preselection criteria:** Feasibility and technical studies for 5,600 ha of irrigation works in the project area are underway under the PASAG. The project sites are selected out of these areas to allow the project to expedite procurement and construction of irrigation infrastructure. Irrigation sites were preselected based on a set of technical and socioeconomic criteria defined in preparing the Master Plan for irrigation development in Guinea. Technical criteria included topographic considerations (slopes), availability of water and land resources, and agronomic potential. Socioeconomic criteria included the location of sites within major agricultural production areas, access to markets, synergy with other projects, and the potential for maximizing project impact. The project intends to improve water management by mostly rehabilitating small scale irrigation schemes focusing particularly on low-land areas. The few new schemes to be developed will be located in low-land areas and sourcing water from rivers that are not tributaries of international waterways to avoid any impact on riparian countries. Development of low-land areas involves minimal and insignificant additional water withdrawal since this irrigation system mainly relies on naturally occurring flood waters.
11. **Irrigation infrastructure:** Given that the project will be implemented across different “natural” regions of Guinea, irrigation infrastructure and management models must be adapted to suit each local context. For example, in mangrove areas in Lower Guinea, the major constraint pertains to drainage and management of soil salinity, while the constraints of Middle and Upper Guinea pertain more to making water available during dry periods. Consequently, drainage systems will be strengthened in the sites located in Lower Guinea, and in Middle and Upper Guinea the project will emphasize ensuring water availability during the dry season.
12. **Cropping cycle:** Irrigation development under the project will allow for at least double cropping, with some areas presenting opportunities for triple cropping by taking full advantage of crop rotations. The development of irrigation systems based on solar pumps, especially for village-level irrigation schemes, will provide opportunities for double cropping focusing on high-value crops (mainly vegetables and potatoes), while minimizing operation and maintenance costs.



13. **Land tenure:** For existing irrigation schemes that need to be rehabilitated, land tenure was clarified when those schemes were first developed, and the project will build on the existing tenure system. For the final selection of any new irrigation development, clarity with respect to land tenure is a key criterion.
14. **Water User's Associations (WUAs):** Field visits confirmed the need to strengthen existing water user committees by providing appropriate training and clarifying their responsibilities. As a first step, the project will conduct a diagnostic study on the existing WUAs, the regulatory framework, and irrigation scheme maintenance policies and their effectiveness during the first year of project implementation. This diagnostic will provide a sound foundation and lessons for the strengthening or creating WUAs in project sites.
15. **Subcomponent 1.2: Increasing access to technology, innovation, and advisory services (US\$4.34 million—US\$4.00 million from IDA and US\$0.34 million from the Government of Guinea).** This subcomponent will finance the widespread adoption of improved, climate-smart technologies and innovation packages, including seed of high-yielding, early-maturing, and drought-resistant varieties, environmentally friendly practices for agricultural intensification in selected production systems (including poultry/egg and fish farming), as well as the promotion of solar-based technologies (as an alternative to wood for processing smoked fish, to preserve natural resources and reduce GHG emissions) and digital solutions for extension services. The direct beneficiaries will be smallholder farmers. The project will finance the transfer and wide diffusion of these technologies and innovations in partnership with producer organizations and research and extension services. In particular, the project will finance: (i) the multiplication of certified seed by cooperatives or firms to increase its availability and lower its cost to farmers; (ii) technical assistance, training, and equipment for public and private advisory services to strengthen technology transfer systems; and (iii) the development of an e-extension platform, using digital solutions and applications to modernize advisory services and extend their reach. Women will be deliberately targeted in the provision of these technologies and training. This subcomponent will be implemented by the PCIU in the Ministry of Agriculture in partnership with the National Agency for Rural Promotion and Agricultural Extension (ANPROCA), other public and private advisory services, and producer organizations.
16. A gender approach will be used, targeting both men and women. In supporting seed cooperatives, the project will encourage the dynamic participation of women members. In addition, women's associations or groups will be targeted in the seed multiplication programs to give women better access to improved seed to increase agricultural productivity and earn more income. Attention will be paid to women during project training activities to enhance their capacity to produce certified seed according to specifications related to cropping operations and post-harvest handling. Use of the e-extension platform will enable advisory services to reach more producers, including women.
17. **Component 2: Increasing market access (US\$12.66 million equivalent—US\$11.00 million (SDR 7.65 million) from IDA, US\$0.22 million from the Government of Guinea, and US\$1.44 million from beneficiaries).** The objective of this component is to help producers, small-scale processors, and their organizations to increase production and commercialization of marketable surplus for the targeted value chains for five agricultural commodities (rice, maize, potatoes, eggs, and fish). Activities will encourage market-oriented behavior and link buyers with sellers whenever possible. Through a Maximizing Financing for Development (MFD) approach, the project seeks to leverage private sector investment, including investments by smallholder producers and other value chain actors to build



sound commercial agriculture. Component 2 will: (i) strengthen producers and professional organizations, processors, SMEs, and inter-professional organizations through training, coaching, and mentoring; (ii) provide training and facilitate the preparation of sound business plans; and (iii) contribute to the funding of such business plans through a matching grant mechanism. Women and youth (18-35 years age) will benefit from preferential terms for matching grants. Implementation of Component 2 will be done by the PCIU with the recruitment of a specialized firm with experience in (i) delivering technical assistance to small-scale producers and agribusinesses and (ii) organizing activities to structure agricultural value chains. This component has three subcomponents.

18. **Subcomponent 2.1: Strengthening producer organizations (US\$3.21 million from IDA—US\$3.0 million from IDA and US\$0.22 million from the Government of Guinea).** Improving market access requires bringing producers and other value chain participants (input suppliers, wholesalers, aggregators, inter-professional organizations, financial institutions, agribusinesses, and others) together to identify pathways to win-win business relationships, and then accompanying them along this trajectory. Producers need to understand the market, the opportunities, and be empowered to solve business problems that constrain market access. This subcomponent will finance institutional support to professional organizations, technical assistance to identify promising markets and obstacles to increasing sales, develop action plans to resolve problems, and build communally-managed infrastructure (markets, aggregation areas, basic storage structures, and basic conditioning areas).
19. Working with producer and inter-professional organizations, the project will: (i) establish or strengthen professional and inter-professional entities (including producer organizations, cooperatives, women's and youth groups) with a focus on better governance, and preparation and implementation of their action plans; (ii) finance convening events and other knowledge-sharing activities and tools (demonstrations, publications, instructional videos, radio programs); and (iii) rehabilitate and/or build communally-managed infrastructure for market access. Such infrastructure is required to increase value chain activity but is unlikely to be profitable as private investments.
20. The technical assistance provided under this subcomponent will be organized and coordinated by a specialized firm with extensive experience in developing producer organizations, strengthening agricultural value chains in Africa, and building partnerships between producers and other agricultural value chain participants. The PCIU is developing terms of reference and expects to issue a Request for Proposal prior to effectiveness.
21. The project will finance the services of the specialized firm to train producers and small-scale processors and their organizations and SMEs, undertake studies as described earlier, deliver technical assistance and organize convening events. Producer organizations, women's groups (*groupement d'intérêt économique*), cooperatives, agricultural businesses, inter-professional organizations, buyers, and service providers will participate in and be beneficiaries of these activities. The specialized firm will also seek to identify partners in the value chain with common interests for matchmaking. These efforts will be supervised by the PCIU.
22. The project will develop capacity-building plans to strengthen inter-professional and producer organizations, associations, and youth and women's groups. While the needs of each of these organizations may differ, capacity-building plans will be oriented toward enabling these organizations to perform the following actions: organize producers, provide capacity building services to members,



develop and advocate good policies, manage their finances, implement climate-smart solutions, and plan and deliver on their commitments to members, stakeholders, suppliers, and customers. After developing these capacity-building plans, the project will fund training to strengthen the technical, entrepreneurial, and management skills of these stakeholders. The range of business and technical subjects will include: financial management, operations and logistics, marketing, accounting, advocacy, technology-enabled business, and innovative personal initiative training that encourages entrepreneurial thinking and problem solving. Beneficiaries will also be exposed to concepts relevant for developing market-oriented agribusinesses.

23. The Ministry of Agriculture has conducted research on agricultural value chains in Guinea that will assist in developing these capacity plans, but additional information will also be obtained. The WAAPP and PASAG projects have generated extensive research, plans, and feasibility studies on almost all aspects of the value chains and areas covered by the project. These include master plans for irrigation and rural roads, an agricultural sector review, and cost structure data on value chains. IFC performed a nationwide value chain study in 2017 and is preparing a more detailed agribusiness “Deep Dive” that will contribute to this effort. Furthermore, the Ministry of Agriculture has assembled research on value chains from several other donors and organizations, such as USAID.
24. The project will finance communally-managed assets that are required to increase producer and small processor income but unlikely to be profitable as a private enterprise. These assets may include storage facilities, small processing platforms, and collection points. Climate-smart technologies, designs, and processes will be prioritized. A list of potential communally-managed infrastructure investments will be developed during the first year of implementation from the analysis funded under this subcomponent and led by a specialized firm (value chain studies and capacity building plans). The specialized firm, working with the producer and inter-professional organizations, will also consider communally-managed infrastructure needs expressed in local development plans, and reconcile these needs with the objectives of the project to determine which should be included in the list. The specialized firm will work with producers and inter-professional organizations to develop the business cases for these investments. The specialized firm will perform feasibility studies for them, and assess the infrastructure from a management perspective (design, value for money, ease of maintenance, operating cost, and management/ownership structure), and present its findings to the PCIU for funding. The PCIU will select, fund, and manage construction and commissioning of these facilities according to processes and procedures elaborated in the PIM. The specialized firm will coordinate supervision of the works, engineering services, training for users, and implementation of management systems on behalf of the PCIU. The estimated cost of these structures will be between US\$20,000 and US\$150,000 each. These structures will be owned and managed by producer associations whose capacity will be enhanced ahead of the completion of the infrastructure.
25. **Subcomponent 2.2: Promoting business development services (US\$1.00 million—US\$1.00 million from IDA).** This subcomponent will finance business development services for individuals or groups of producers and small processors willing to engage in micro-projects (MPs) (including activities such as agricultural intensification, mechanization, small-scale processing, efficiency improvements, marketing and storage investments), as well as for agribusiness SMEs (SME-subprojects) in Guinea. The project will assist promoters of MPs and SME-subprojects by helping them develop business plans and coaching them to make their projects successful. This subcomponent will provide technical assistance and capacity building to strengthen technical, entrepreneurial, and management skills of





project promoters. Beneficiaries will be accompanied by agriculture/agribusiness advisors (through service providers who will work with them to customize sound projects and business plans, as well as identify specific capacity-building needs and prerequisites for their success). In addition, the SME Business Center, created under the Guinea Micro, Small, and Medium Size Enterprises Project (P128443), will receive technical assistance to develop into a robust partner providing training services. This subcomponent will be implemented by the PCIU in partnership with the SME business center and with support from the specialized firm recruited as described in subcomponent 2.1.

26. **Subcomponent 2.3: Financing productive investment projects (US\$8.44 million—US\$7.0 million from IDA and US\$1.44 million from beneficiaries).** This subcomponent will provide co-funding and implementation support for competitively selected investment initiatives by producers, small processors, and marketers (MPs) and producer groups and agricultural SMEs (SME-subprojects). Project funding will be provided under a single matching grant mechanism composed of two separate windows, each having distinct conditions and processes, funding levels, terms, and arrangements, which will be defined in manuals approved as a disbursement condition (Table A1.4). These windows are:

- i) **Micro-project window (MPs):** This window will co-fund at least 900 MP business plans through a competitive matching grant mechanism for investment of up to US\$5,000 in total cost for individuals and up to US\$10,000 in total cost for groups. The MP window will be divided into two sub-windows accommodating individual and group-promoted MPs, respectively. The MP window will target vulnerable groups, particularly women and youth. MP beneficiaries will be individual producers or groups of producers, agri-entrepreneurs, processors, and marketers, who will contribute at least 20 percent of the project cost in cash or in kind. The project will provide up to 80 percent in matching funds. MP beneficiaries will be required to have a bank account in a Financial Institution (FI), including a commercial bank or a micro-financial institution (MFI), to receive funds. The use of climate-smart technologies will be strongly encouraged.

Potential MP business plans may finance diverse investments to increase incomes and help beneficiaries develop more market-oriented behavior. Expenses funded by MP matching grants may include the purchase of equipment, working capital and other business startup costs, improvements to facilities, farm inputs, training and professional services, transport services, or other needs. Impact on beneficiaries' income will be a key selection criterion for MPs, as well as the sustainability of increased income resulting from the MP investment.

- ii) **SME subproject window (SME-subproject):** This window will co-fund approximately 50 business plans through a competitive matching grant mechanism with total project costs ranging from US\$10,000 to US\$50,000. The project will cover up to 60 percent of eligible expenditures, while the remaining 40 percent will be provided by beneficiaries through cash or through loans from FIs. SME-subproject beneficiaries will be required to have a bank account in an FI (a commercial bank or MFI) to receive funds, as one of the purposes of this mechanism is to develop sustained business relationships between beneficiaries on the one hand and FIs on the other, starting at investment inception. Business plans that incorporate climate-smart technologies will be strongly encouraged.



**Table A1.4: Matching grant business plan windows and financing sources for the Guinea Integrated Agricultural Development Project**

Total project size (USD)	Project funding Matching capital (%)	Individual cash contribution (%)	Estimated total recipients (Business plans)
<b>Micro-project window (MP)</b>			
Sub-window 1: Up to 5,000 for individuals	Up to 80%†	Minimum of 20%	900
Sub-window 2: Up to 10,000 for groups			
<b>SME subproject window (SME-subproject)</b>			
10,000–50,000	Up to 60%	Minimum of 40%	50

† Concessional terms to MPs headed by women and youth is 90% matching grant from project and 10% contribution from beneficiaries.

27. Under both windows, women and youth (18-35 years of age) will receive preferential treatment, particularly rural youth and young professionals who have graduated from agricultural and business schools. These two groups will be required to finance only 10 percent of eligible expenditures under the MP window and 30 percent under the SME-subproject window.
28. The matching grant processes, procedures, selection criteria, eligibility criteria, obligations of beneficiaries, and other dimensions will be elaborated in detail in the project Matching Grant Implementation Manual (MGIM) to be prepared and validated prior to disbursement under the matching grant component. The MGIM will be informed by experiences from successful agricultural sector and agribusiness development matching grant activities implemented elsewhere in the Africa region as well as lessons learned from matching grant activities in Guinea.
29. **Matching grant eligibility criteria:** The eligibility criteria for beneficiaries of matching grants are outlined in Table A1.5 and will be further detailed in the PIM.





**Table A1.5: Eligibility criteria for matching grants under the Guinea Integrated Agricultural Development Project**

	Matching Grant Windows	
	Micro-projects	SME-subprojects
<b>Beneficiary eligibility criteria</b>	<p style="text-align: center;"><b>GROUPS</b> (e.g., producer organizations, associations, farmer cooperatives, commodity interest groups)</p> <ul style="list-style-type: none"> <li>▪ Their principal activities must be concerned with production, processing, or marketing in the priority value chains indicated by the project, and situated in the project area.</li> <li>▪ Established at least one year prior to requesting project support.</li> <li>▪ Provide proof of juridical existence (registration certificate).</li> <li>▪ Documented availability of resources (in kind or cash) for contribution to matching grant as shown in a costed micro-project.</li> <li>▪ Must have a bank account with FI (commercial bank or micro-finance institution).</li> <li>▪ Commit to participate in capacity-building activities as prescribed by the project, such as training and technical assistance to develop a business plan acceptable to the project.</li> <li>▪ Commit to respect all safeguard requirements of the project.</li> <li>▪ Beneficiary can submit only one subproject at a time and cannot benefit more than one time from any of the funding windows.</li> <li>▪ Beneficiary must be the primary beneficiary of the micro-project.</li> </ul> <p style="text-align: center;"><b>INDIVIDUALS</b></p> <ul style="list-style-type: none"> <li>▪ Must have a bank account with FI (commercial bank or micro-finance institution).</li> <li>▪ Principal activities of the individual must be concerned with production, processing, or marketing in the priority value chains indicated by the project, and the individual must be situated in the project area.</li> <li>▪ Must prove identity and residency in the targeted prefectures.</li> <li>▪ Documented availability of resources (in kind or cash) for contribution to matching grant as shown in a costed micro-project.</li> <li>▪ Commit to participate in capacity-building activities as prescribed by the project, such as training and technical assistance to develop a business plan acceptable to the project.</li> <li>▪ Commit to respect all safeguard requirements of the project.</li> <li>▪ Beneficiary can submit only one micro-project at a time and cannot benefit more than one time from any of the funding windows.</li> <li>▪ Beneficiary must be the primary beneficiary of the micro-project.</li> </ul>	<ul style="list-style-type: none"> <li>▪ SMEs must demonstrate that investments are financially viable and serve to increase marketable surplus or the provision of goods or services specifically for project value chains, improve quality, or increase productivity.</li> <li>▪ SMEs must be legally registered and functioning for at least 2 years prior to the date of submitting their project concept.</li> <li>▪ SMEs must commit to participate in capacity-building activities as prescribed by the project, such as training and technical assistance to develop a business plan acceptable to the project.</li> <li>▪ SMEs must have a bank account with FI (commercial bank or micro-finance institution).</li> <li>▪ SMEs must meet all safeguard requirements and measures imposed on this investment lending operation.</li> <li>▪ SMEs can submit only one subproject at a time and cannot benefit more than one time from any of the funding windows.</li> <li>▪ SMEs must be the primary beneficiary of the subproject.</li> </ul>
<b>Women and youth</b>	<ul style="list-style-type: none"> <li>▪ Women:               <ul style="list-style-type: none"> <li>○ Women-led groups and groups that have a majority of women.</li> <li>○ Women-led SMEs.</li> <li>○ Eligible for start-up without prior experience.</li> </ul> </li> </ul>	



- Youth:
  - Defined as women and men aged between 18 and 35 years at the time of submission, interested in any of the eligible value chains.
  - Eligible for start-up without prior experience.
  - Youth-led groups and groups that have a majority of youth.
  - Rural youth: interested in expanding their agricultural businesses, regardless of education level.
  - Urban youth:
    - Graduated from agricultural institutes or business school.
    - Graduated from entrepreneurial training, business incubator programs, or agricultural training programs, or willing to participate in such a training program.

30. **Information and communication:** The project will advertise and promote matching grants through communication channels appropriate for reaching producers, small-scale processors, agricultural SMEs, and their organizations in the prefectures where the project is active. Efforts will be made to reach women and youth through promotional activities specifically targeting these groups. The project will work closely with the Ministry of Youth to create synergies with their ongoing initiatives on youth insertion in agricultural value chains.
31. **Screening:** Proposals will be selected for the development of full business plans by the PCIU after being ranked according to criteria laid out in the project MGIM. The selection methodology will be available to the public. Selected beneficiaries will be required to enter into an agreement with the project, and they must meet all obligations with respect to eligibility requirements and their required participation in training and advisory activities. With the support of the specialized firm and other business support service providers, beneficiaries will be trained, coached, and assisted to develop viable business plans for submission to a selection committee. There will be a clear division of responsibilities between providers of technical assistance to create business plans, and the selection process to avoid conflicts of interest. Projects selected for funding will sign a matching grant agreement and receive funding per the terms of the agreement.
32. **Selection:** Business plan proposals will be submitted to a selection committee. The selection committee composition will be proposed by the Project Steering Committee (PSC) and approved by the World Bank. The criteria and procedures will be detailed in the project MGIM. It is envisioned that the committee will be composed of PCIU staff (Project Coordinator, technical and financial specialists) and other experts as determined by the PSC, and that it will include representation of any FIs that may be providing credit for a specific project. The objectives for constituting the selection committee are technical skills, impartiality, efficiency, economy, confidentiality, and avoiding conflicts of interest. For MPs, a regional approval committee composed of stakeholders will be established to vet funding requests in each prefecture where the project is active.
33. **Coaching and technical support for beneficiaries:** For MPs, coaching and continued technical assistance for implementation of business plans will be delegated to the specialized firm or a member of the specialized firm’s consortium with expertise in strengthening small agricultural businesses, or other business support service provider in partnership with Guinea’s national extension service (ANPROCA). Every effort will be made to encourage the use of local business support service providers where possible and to leverage the knowledge of the specialized firm to build their capacity. There are potential subcontractors, business incubators, and entrepreneur support service providers operating in Guinea that the project may access. The PCIU will be responsible for managing the matching grant program and supervising the technical assistance provided through the specialized



firm or other service providers, monitoring, and results reporting. The PCIU will maintain fiduciary responsibility for all aspects of this activity.

34. The project will finance MP and SME-subproject business plans through matching grants provided under Subcomponent 2.3. However, the project will seek to facilitate financing from FIs for beneficiaries through identifying partnership opportunities with FIs. There is evidence that FIs are more likely to finance agriculture if their understanding of acceptable levels of risk for agricultural activities is improved. These efforts will fall within the research, technical assistance, and convening activities of the specialized firm in coordination with IFC. The project will evaluate beneficiaries' needs for financial services, the supply and demand of these services, and opportunities for partnering with FIs to meet these needs.
35. Furthermore, under both windows the project will emphasize appropriate and sustainable agricultural mechanization. The SME window will encourage businesses plans for offering machinery services as well as digitally-enabled technology. With IFC support, leasing may be explored to help provide access to machinery. The MP window will encourage projects centered on small motorized machinery and artisanal production of agricultural equipment, because they offer a way to promote sustainable mechanization and modernization of farming systems. Several examples of improved motorized machinery were developed throughout the region under the WAAPP and in other regions like South Asia. Grants provided under this subcomponent present an opportunity to increase the mechanization of Guinean agricultural production systems, which are predominantly manual and extensive. The MP window will also provide financial support for expanding the use of agricultural machinery, appropriate technology prototypes, and related systems for entrepreneurs. Grants may be used to fund training and study tours to strengthen the technical and managerial skills of local artisans. In addition, the project may link these entrepreneurs with regional and international incubators focused on the use of innovation and appropriate technology for agriculture.
36. **Component 3: Strengthening institutional capacity (US\$5.20 million—US\$5.00 million (SDR 3.48 million) from IDA and US\$0.20 million from the Government of Guinea).** The objective of this component is to strengthen institutional capacity, with a particular focus on the agricultural statistics system, and to plan for a rapid response in the case of severe crises and emergencies.
37. **Subcomponent 3.1: Strengthening the public agricultural statistics system (US\$5.20 million—US\$5.00 million from IDA and US\$0.20 million from the Government of Guinea).** Reliable agricultural statistics are crucial for capturing progress made in improving productivity and production, assessing the impact on the macroeconomic performance of the sector, and developing relevant agricultural policies. This subcomponent will aim to strengthen the public agricultural statistics system. This is a collaborative effort, with AFD providing parallel financial support (US\$6.0 million) and the Food and Agriculture Organization of the United Nations (FAO) providing technical assistance. The objectives of the overall effort are: (i) to reinforce institutional structures and establish the coordination of the sector, (ii) to revive regular quality statistical production, (iii) to carry out the National Agriculture and Livestock Census (*Recensement National de l' Agriculture et de l' Elevage - RNAE*), and (iv) to install an annual agricultural survey system. The project will focus particularly on the RNAE, while AFD will focus on strengthening the institutional capacity of the National Agency for Agricultural and Food Statistics (ANASAA). This subcomponent will be implemented by the ANASAA with technical assistance from FAO and specialized firms to be contracted.



38. This subcomponent will finance consultants, operating costs (for recruiting of enumerators, team leaders and data entry operators, travel, telephony, internet access...), and equipment necessary for (i) developing and testing the methodology; (ii) collecting, entering, processing, and analyzing the data; and (iii) preparing and disseminating reports. Other expenses include technical support services, the national project personnel management, and general operating expenses.
39. The RNAE will focus on three modules. The basic module of traditional agro-pastoral farms is the first census module. Based on a complete enumeration, this module will collect basic data on the socioeconomic and demographic characteristics of households (size and composition, characteristics of household head, household activity, farm assets, and so on) as well as their farming practices (type of farm crop, irrigation, livestock, fishing, aviculture, fish farming, forestry, and so on). The second census module, also based on a complete enumeration, focuses on the characteristics of modern agro-pastoral farms and will collect information on farm characteristics (such as legal status, management, main activities, accounting, and so on), labor, materials and equipment, and other variables. The third module is a community module, which will collect information on the type of village or community, basic infrastructure (road, water, and electricity), school and health infrastructure, socioeconomic infrastructure, communication networks, natural resources (forest, land, wildlife, rivers, and so on), socioeconomic and cultural organizations, and other features. In addition to the three modules, a complementary module based on a complete enumeration of livestock will be financed. Data generation will include the production of statistics to be used for adaptation to climate change. The system will be designed to allow production of gender-disaggregated agricultural statistics.
40. **Subcomponent 3.2: Contingency Emergency Response (US\$0 million).** Given Guinea's vulnerability to shocks, a Contingency Emergency Response subcomponent (CERC), with a zero-dollar provision, is included in the project design to create a financing mechanism for emergency demands arising from natural disasters and other shocks. If such a crisis develops, the government may request the World Bank to reallocate project funds to cover some costs of emergency response and recovery. An operational manual acceptable to the World Bank for implementing the project CERC is being prepared. All expenditures under this CERC will be in accordance with paragraphs 11, 12, and 13 of World Bank OP10.00 (Investment Project Financing). They will be appraised and reviewed to determine if they are acceptable to the World Bank before any disbursement is made. Disbursements will be made against an approved list of goods, works, and services required to support crisis mitigation, response, recovery, and reconstruction.
41. **Component 4: Project coordination and implementation (US\$4.33 million—US\$4.00 million (SDR 2.78 million) from IDA, US\$0.33 million from the Government of Guinea).** This component aims at ensuring that the project is efficiently managed and monitored and that performance and outcomes are carefully tracked, all in partnership with the implementing agencies and technical services of involved ministries. The main activities will consist of: strategic planning, coordination and management; monitoring, evaluation, and communication; and the management of safeguard policies. Under this subcomponent, the project will finance: (i) the incremental expenses incurred in implementing the project through the PCIU, the participating field implementing agencies, and various service providers; (ii) technical assistance provided through consultancies, audits, and training to enhance the implementation capacity of the PCIU; (iii) communication, knowledge production and sharing, and outreach activities; (iv) M&E of project outcomes and impacts; (v) citizen engagement;



(vi) oversight of social and environmental safeguard measures in accordance with agreed-upon procedures; and (vii) institutional strengthening to ensure sustainability of project results.



## Annex 2: Financial and economic analysis

1. **Overview:** The aim of the economic and financial analysis (EFA) is to determine whether the project is financially and economically profitable. Market prices are used for the financial analysis. The economic analysis is based on social prices—that is, the market price net of taxes and other transfers such as personal income taxes, corporate income taxes, import duties, and production subsidies for crops where data is available (rice). For other businesses like fish farming, fish smoking, and maize and rice processing, net income was estimated based on research, studies, and historical cost, revenue, and production data. The EFA assumes a macroeconomic environment with price and exchange rate stability.
2. The project beneficiaries are primarily agricultural producers and SMEs involved in the production, processing, and marketing of selected agricultural commodities, namely rice, maize, poultry (eggs), potatoes, and farmed fish. The project will generate a variety of direct and indirect financial and economic benefits accruing to different groups of beneficiaries. Some of these benefits are possible to estimate with reasonable accuracy. Indirectly, family members of direct beneficiaries and citizens in the project area will derive benefit from the increased economic activity and spending of direct beneficiaries, the improved services available from public and private organizations, and the ability to avail themselves of enhanced productive assets in the project area.
3. **Assumptions:** The guiding tenet of the economic analysis is conservatism for the estimates and assumptions used. The team is also committed to simplicity. Attempts to model elements that are highly speculative, such as future changes in local inflation rates, commodity price changes, or changes in input costs over time, are likely to add complexity without increasing accuracy. For this reason, the economic analysis focuses on the estimated impact on the net income of producers and agricultural SMEs in each value chain and the growth of this net income arising from project activities. Other indirect economic and financial impacts, as well as the net counterfactual, are accounted for by using a conservative multiplier of 1.25 on positive cash flows. The team believes that additional positive economic and financial benefits will arise from the project and that they may be considerable, such as benefits that arise from improvements in the business environment or from the creation of tools, technology, and services that enhance income for producers and SMEs. The team cannot estimate these benefits with any precision, however, because they cannot be meaningfully disaggregated from the multiplier effect.
4. Project activities will positively impact net incomes for producers and agricultural SMEs across all project value chains. These producers and agricultural SMEs will improve their productivity, increase their efficiency, reduce their costs, produce more, and increase sales. The EFA estimates the impact on the net income of these beneficiary businesses based upon a base case for typical producers and agricultural SMEs in the value chains targeted by the project and in the project areas. For rice producers, a per hectare farm model was used to estimate project impact on net income, because the project will rehabilitate 3000 ha. The producers and agricultural SMEs themselves may operate as individual producers, or as members of associations, producer groups, or through other affiliations. They may benefit from better storage or access to machinery and financing through these affiliations.
5. While the exact location and nature of investments in irrigation are not yet known, when the specific irrigation schemes are selected, the corresponding detailed feasibility studies will also include an EFA



to ensure that only those schemes that provide a positive NPV and represent good value for money will be eligible for irrigation infrastructure investment. Similarly, all investments in subprojects financed under Component 2 will have to meet financial viability criteria (defined by a minimum IRR and positive NPV) to be considered eligible. This additional EFA will be used in the project M&E system, and it will provide a basis to update the EFA at the Mid-Term Review and at project completion.

- 6. The value chains prioritized by the project include some of the most widely produced food crops in Guinea (rice, maize, potato). Significant potential exists to increase net incomes of market-oriented producers and agricultural SMEs. Presently, 95 percent of agriculture is rainfed. Only approximately 10-15 percent of production is marketed, and losses are high. Producers of horticultural crops lose 24 percent of their production on average, and losses for cereals, pulses, roots, and tubers are 30-60 percent. Rice and maize yields are one-third to one-half of the potential yields with intensive production practices using improved seed and inputs. Given the low level of marketable surplus currently produced, and the project’s proposed investments in irrigation and market connectivity, the economic analysis hypothesizes reasonable increases in net income arising from the project and an expansion in the number of agricultural SMEs reached by the project (see Table A2.1).

**Table A2.1: Estimated increase in net income of producers and agricultural SMEs**

Estimates	Project year:						
	1	2	3	4	5	6	7
Estimated increase in net income due to project	0%	0%	5%	10%	20%	25%	30%
Percentage of target for number of businesses per value chain reached in each year of the project	0%	25%	50%	75%	90%	100%	100%

- 7. Table A2.2 provides the assumptions of the average net income at year zero of an individual beneficiary producer enterprise or agricultural SME (except for rice, for which the project modeled net income per hectare). These figures are based on multiple value chain studies, government data, discussions with experts, and research obtained during missions, including discussions with businesspeople and other stakeholders.
- 8. The estimates of financial and economic benefits are based on cash flows modeled over ten years. Estimates were made both for rice production from planned irrigation infrastructure, as well as for the project overall, which includes the other commodities and agricultural businesses that will receive matching grants, technical assistance, and other support from the project. Using a discount rate of 6 percent, the FNPV and ENPV were computed for the irrigated rice activities and for the project overall.
- 9. The project will generate significant financial value, as indicated by the positive FNPV and by the financial IRR, which exceeds the interest rate on Guinea’s financial market (Table A2.3). This result supports evidence that agricultural activities are profitable if water is adequately managed, quality inputs and best practices used, and technical assistance provided.





**Table A2.2: Estimated annual net income of market-oriented producers and agricultural SMEs (US\$)**

Type of producer enterprise or agricultural SME	Estimated average annual net income at Year 0 (US\$)
Rice farm model	1,239 (per hectare)
Fish—smokers	500
Fish—fresh	990
Poultry and eggs	2,080
Maize	606
Potatoes	537
Other producers	500
Rice processing units	27,081
Farm input suppliers and service providers	900

10. The economic analysis displays a positive ENPV for both irrigated rice and the overall project (Table A2.3). The economic IRR is much higher than the opportunity cost of capital for large public investments (17-25 percent). This result suggests that the project is economically sound.
11. **Greenhouse gas accounting.** The net carbon balance quantifies GHGs emitted or sequestered because of the project compared to the without project scenario. Over the project duration of 20 years, the project constitutes gross GHG emissions of **-1,878,259 tCO<sub>2</sub>-eq** and net GHG emissions of **-2,393,661 tCO<sub>2</sub>-eq**. The project provides a sink of **119,683 tCO<sub>2</sub>-eq per year**. The main carbon sink (**4,167,524 tCO<sub>2</sub>-eq**) arises from improved practices on annual crops. Following World Bank guidance, these benefits have been valued at a social value of carbon that is increasing over time in real value from **US\$35 per tCO<sub>2</sub>-eq in 2020** to **US\$50 per tCO<sub>2</sub>-eq in 2030**. The estimation confirmed the economic soundness of the project as shown by the high ENPV and IRR levels when the social cost of sequestered carbon is valued (Table A2.3). In addition, the climate co-benefit assessment showed that the project’s total climate co-benefit amounts to US\$14.17 million (35.4 percent).

**Table A2.3: Financial and economic analysis results**

Activities	Parameters	Financial analysis	Economic analysis	Economic analysis with carbon benefit
Irrigated rice	Net present value (USD)	8,320,930	14,822,783	10,910,189
	Internal rate of return (%)	19	32	26
Overall Project	Net present value (USD)	19,723,489	26,225,341	49,997,018
	Internal rate of return (%)	23	31	51

12. The sensitivity analysis, based on adverse scenarios, confirmed that the results of the analysis are robust. The sensitivity analysis showed positive FNPV and ENPV as well as high IRR, confirming that the project is sound (Table A2.4).





**Table A2.4: Results of the sensitivity analysis**

Scenario	Economic analysis		Financial analysis	
	IRR (%)	ENPV (US\$)	IRR (%)	FNPV (US\$)
<b>Base case</b>	31%	26,225,341	23%	\$19,723,489
<b>High 1:</b> 10 percent more beneficiary businesses reached by project and 10 percent greater number of hectares for rice over base case.	37%	32,049,077	27%	\$24,906,470
<b>High 2:</b> Higher impact on net income of beneficiary businesses and 10 percent higher margin for rice over base case.	38%	33,002,898	29%	\$26,103,761
<b>Low 1:</b> 10 percent fewer beneficiary businesses, and 10 percent fewer hectares for rice over base case.	26%	20,451,760	19%	\$14,540,508
<b>Low 2:</b> Lower impact on net income of beneficiary businesses and 20 percent lower margin for rice over base case.	12%	6,059,943	6%	\$352,660

13. Table A2.5 presents the assumptions regarding producers and agricultural SMEs used in the analysis.

**Table A2.5: Assumptions used in the analysis**

Type of producer enterprise or agricultural SME	Assumptions
Rice	Rice production income is based on an improved cropping model for a farm of 1 ha. It assumes 4 beneficiaries per hectare, with yields improving from 1.2 metric tons (t) per hectare per year to 8 t/ha/yr using double cropping. This yield increase will result in substantial increases in total output (566%), with costs increasing by 200.4% (106% from improved inputs and practices and the balance from the depreciation of irrigation facilities). Tables A2.6 and A2.7 contain a comparison of rice production income with and without the project. The EFA incorporates anticipated incremental income from the 3,000 ha the project will rehabilitate. The incremental net income for this model is estimated at US\$1,239/ha.
Fish—smokers	This estimate is derived from discussions with members of a fish smoking association in Kamsar. These members are women who smoke and market fish. An average member has an estimated income of US\$500 per year. This assumption was endorsed by Ministry of Agriculture and Ministry of Fisheries technicians.
Fish—fresh	A feasibility study for average fish-raising operations in Guinea provides the basis for modeling the average net income for these beneficiaries. A diverted-source pond design is assumed with a surface of 0.3 ha, an annual production of 1.5 t of marketable output, and a net income of US\$990.
Poultry and eggs	Based on a recent feasibility study specific to costs in Guinea, the EFA assumes a case of a production unit with 1,000 laying hens requiring 200 m <sup>2</sup> of terrain and producing 260,000 eggs per year. Revenues are estimated based upon 260 eggs per hen, 1% breakage, 12% mortality over startup of the facility to 18 months total operational period assessed. This setup provides an income of US\$3,120 (total sales of eggs, old hens, and guano) or an annualized income assuming a continuing concern of US\$2,080.
Maize	Information comes from the pro-forma 2015 season income statement prepared by the Agricultural Research Institute Guinée-Bordo. It estimates a farm with 3 t of production and a selling price of GNF 2,500/ kg and a net income of GNF 4,365,000 (US\$606 at the pre-season 2015 exchange rate of GNF 7,200/US\$). In the estimate, 1.25 t/ha is equal to a farm of 2.4 ha.



Type of producer enterprise or agricultural SME	Assumptions
Potatoes	Information was obtained directly from potato producer associations in the project area and is based on the 2016-17 season. Individual producers on average cultivate 1.2–2.4 ha per small farm enterprise or 4–8 people per hectare, and a per hectare income average of US\$3,222 per year. Using the mid-point of 6 producers per hectare, the net income per year estimated per small farm enterprise is US\$537. This assumes an average estimated yield of 29 t/ha.
Other producers	The EFA also estimates the net income of other producers, such as those producing and marketing tree crops and horticultural products. These producers will most often produce cereal crops as well. There is a diversity of potential incomes depending on the products marketed. The EFA estimates US\$500 per year to account for these producers as an average. Some may be more successful with higher incomes, such as producers of cashews, onions, mangos, or pineapples, or some may be less successful with lower profits, such as small-scale producers of chilis, okra, or eggplant.
Rice processing units	Rice is the crop most widely marketed in Guinea, and the rice sector will benefit from the project. The EFA has taken the case of a typical rice-processing operation (decorticator and parboiler), for which the model was developed by the WAAPP. The basis is for 396 t parboiled and 317 t decorticated rice per year with a net income of US\$27,081 per year.
Farm input suppliers and service providers	Input suppliers, processors, and other businesses will increase their incomes or be created as a result of project activities. These farm input and service providers are meant to represent a range of different SMEs that have producers and other value chain actors as clients. They may sell inputs or seed, rent machinery, provide transport, or perform other services. The assumption used to model their net income is US\$900.

14. **Rationale for public sector financing:** Neither private nor public capital is available in sufficiently large amounts to provide adequate financing for small producers, processors, and agribusinesses, particularly for entrepreneurs seeking to carry out more innovative investments that may have high economic, financial, and social returns but that also feature high levels of risk. This is a significant obstacle to agricultural producers, even those working together in associations, to increase their marketable surplus and take advantage of market opportunities. Additionally, the current options for capacity building and the availability of services that could help these beneficiaries engage in business activities are minimal, emphasizing the need for public investment. Public investment in support of agribusiness will increase the competitiveness of these producers and agricultural SMEs, decrease investment risk, and encourage private investment. Using the MFD approach, the proposed project addresses some of the market failures related to access to inputs, markets, technologies, and services that are prevent farmers and small businesses from increasing their competitiveness. By providing public goods, semi-public goods, and services through matching grants and capacity building, the project will help to mobilize domestic private investment, notably in the form of farmers’ and SMEs’ contributions to the matching grants. These actions will create markets for local providers of goods and services along value chains. Upcoming reforms and a proposed agribusiness project will further enhance private participation in the development of agricultural value chains. Increasingly, government spending will focus on pure public goods and regulations.

15. **Value added of World Bank support:** Government and donor interventions to develop the agricultural sector, increase productivity, and enable small producers have not yet created the conditions to engender the structural change that Guinea requires to participate adequately in dynamic, rapidly growing domestic and regional markets. By its strong presence and engagement in Guinea, along with its ability to mobilize relevant experience from throughout sub-Saharan Africa and elsewhere in the



world, the World Bank is in a unique position to aggregate knowledge and mobilize the efforts of development partners to unlock Guinea's potential to produce, process, market, and export agricultural products. IDA financing will support the much-needed strengthening of producer and inter-professional organizations, businesses, and public service providers, as well as encourage private investments in agriculture.



**Table A2.6: Farm budget for rice production with project**

FARM BUDGET FOR RICE PRODUCTION (1ha per harvest)						
Items	Description	Measurement unit	Quantity	Unit Cost (GNF)	Amount in GNF	Amount in US\$
INPUTS	Seeds (improved/certified)	Kg	70	4,000.00	280,000.00	30.8
	Fertilizers (2 bags of NPK and 3 bags of urea)	Bag	5	135,000.00	675,000.00	74.25
SOIL PREPARATION	Weeding (herbicide)	Liter	5	35,000.00	175,000.00	19.25
		Labor/lump sum	1	25,000.00	25,000.00	2.75
	Ploughing (hired animal traction)	Pair of Oxen	4	220,000.00	880,000.00	96.8
	Offsetting (hired animal traction)	Pair of Oxen	2	80,000.00	160,000.00	17.6
SEEDING	Seedings	Pair of Oxen	1	100,000.00	100,000.00	11
	Birds surveillance at seeding (12 days)	Worker-day	48	10,000.00	480,000.00	52.8
WEEDING (manual and chemical)	Application of selective herbicide	Liter	4	35,000.00	140,000.00	15.4
		Labor/lump sum	1	25,000.00	25,000.00	2.75
	Weeding	Worker-day	5	10,000.00	50,000.00	5.5
FERTILIZERS	Fertilizer spreading	Worker-day	2	15,000.00	30,000.00	3.3
OTHER	Maintenance of dikes and canals	Worker-day	2	10,000.00	20,000.00	2.2
	Cleaning	Lump sum	1	50,000.00	50,000.00	5.2
BIRD OVERSIGHT	Bird surveillance at harvest	Worker-day	60	10,000.00	600,000.00	66
HARVEST (manual & mechanical)	Harvest and transportation (one day)	Worker-day	20	25,000.00	500,000.00	55
SHREDDING (manual and mechanical)	Shredding (production 4 t/ha)	Ton	4	200,000.00	800,000.00	88
THRESHING	Threshing (manual/mechanical)	Liter of gasoline	5	10,000.00	50,000.00	5.5
		Labor/lump sum	1	25,000.00	25,000.00	2.75
BAGGING	Drying and bagging	Worker-day	9	20,000.00	180,000.00	19.8
<b>TOTAL</b>					5,245,000.00	576.95
				Revenues		
Total rice production (kg)	Marketable 100% (kg)	Unit price	Total amount	Double cropping		
3,800	3,800	3,000 (GNF/kg)	11,400,000 (GNF)	22,800,000 (GNF)		
		0.33 (USD/Kg)	1,254.00 (USD)	2,508 (USD)		
Total cost	Total revenue for one cropping cycle	Net income for one cycle	Net annual income			
5,245,000 (GNF)	11,400,000 (GNF)	677 (USD)	1,354 (USD)			
577 (USD)	1,254 (USD)					
<b>Incremental net revenue (with Project minus without Project):</b>			<b>\$1,239 USD per hectare</b>			

Assumptions: 1/ Average paddy yield per hectare for one harvest = 4000 kg  
 2/ Post-harvest losses (under improved conditions) = 5%



**Table A2.7: Farm budget for rice production without project**

FARM BUDGET FOR RICE PRODUCTION (1ha per harvest - actual)					
Items	Description	Measurement unit	QTE	Unit Cost (GNF)	Amount in GNF
INPUTS	Seeds (improved/ certified)	Kg	70	4,000.00	280,000.00
	Fertilizers (2 bags of NPK and 3 bags of urea)	Bag	2	135,000.00	270,000.00
SOIL PREPARATION	Weeding (herbicide)	Liter	0	35,000.00	
		Labor/lump sum	0	25,000.00	
	Ploughing (hired animal traction)	Pair of Oxen	0	220,000.00	
	Offsetting (hired animal traction)	Pair of Oxen	2	80,000.00	160,000.00
SEEDING	Seedings	Pair of Oxen	1	100,000.00	100,000.00
	Birds surveillance at seeding (12 days)	Worker-day	48	10,000.00	480,000.00
WEEDING (manual and chemical)	Application of selective herbicide	Liter	0	35,000.00	
		Labor/lump sum	0	25,000.00	
	Weeding	Worker-day	5	10,000.00	50,000.00
FERTILIZERS	Fertilizer spreading	Worker-day	1	15,000.00	15,000.00
OTHER	Maintenance of dikes and canals	Worker-day	4	10,000.00	40,000.00
	Cleaning	Lumpsum	1	50,000.00	50,000.00
BIRD SURVEILLANCE	Bird surveillance at harvest	Worker-day	40	10,000.00	400,000.00
HARVEST (manual & mechanical)	Harvest and transportation (one day)	Worker-day	6	25,000.00	150,000.00
SHREDDING (manual and mechanical)	Shredding (production 4t/ha)	Ton	0	200,000.00	
THRESHING	Threshing (manual/mechanical)	Liter of gasoline	2	10,000.00	20,000.00
		Labor/lump sum	2	25,000.00	50,000.00
BAGGING	Drying and bagging	worker-day	4	20,000.00	80,000.00
<b>TOTAL</b>					2,145,000.00
<b>Revenues</b>					
<b>Total rice production (kg)</b>	<b>Marketable (100% kg)</b>	<b>Unit price</b>	<b>Total amount</b>		
1,275	1,275	2,500 (GNF/kg)	3,187,500 (GNF)		
		0.28 (USD/kg)	351 (USD)		
<b>Total cost</b>	<b>Total revenue for one cropping cycle</b>	<b>Net income for one cycle</b>			
2,145,000 (GNF)	3,187,500 (GNF)	1,042,500 (GNF)			
236 (USD)	351 (USD)	115 (USD)			

Assumptions: 1/ Average paddy yield per hectare for one harvest = 1500 kg

2/ Post-harvest losses = 15%



### Annex 3: Greenhouse gas accounting

1. **Corporate mandate:** In its 2012 *Environment Strategy*, the World Bank has adopted a corporate mandate to conduct 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 it is becoming a 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), developed by FAO in 2010. EX-ACT allows the assessment of a project’s net carbon-balance, defined as the net balance of CO<sub>2</sub> equivalent GHGs 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<sub>2</sub> (tCO<sub>2</sub>-eq) per hectare and year.
3. **Project boundary:** Component 1 of the project (Increasing agricultural productivity) will enable the diffusion of improved, climate-smart technologies and innovations, including seed of improved, high-yielding, and drought-resistant varieties; best and environmentally-friendly practices for the intensification of production systems; agricultural machinery; and new improved technologies related to poultry, aquaculture, and fish processing that are developed in the country. Component 1 will also improve water management and small-scale irrigation systems, focusing particularly on lowland areas. Component 2 (Increasing market access) will fund critical public infrastructure. Project activities related to GHG emissions or sequestration include:

*a. Improved practices on annual crops:* See examples in Table A3.1.

**Table A3.1: Climate-smart intervention practices (for example)**

Crop	Improved agronomic practices	Nutrient management	No tillage/ residue management	Water management	No residue burning	Manure application	Area (ha)
Rice	✓	✓		✓	✓	✓	40,000
Maize	✓	✓			✓	✓	30,000
Potatoes	✓	✓		✓	✓	✓	10,000

*b. Improved flooded rice systems:* See examples in Table A3.2.

**Table A3.2: Flooded rice intervention practices (for example)**

Flooded rice systems	Water regime during the cultivation period	Water regime before the cultivation period	Organic amendment type	Area (ha)
120 days double cropping	Irrigated–intermittently flooded	Non-flooded preseason < 180 days	Green manure	3,000
120 days double cropping	Rainfed and deep water	Flooded preseason > 30 days	Green manure	3,000
Traditional 130-150 days single cropping	Rainfed and deep water	Non flooded preseason < 180 days	Straw burnt	6,000

*c. Application of fertilizers and pesticides:* 100 kg/ha/yr of urea will be applied to 3,000 ha with the project instead of 300 ha without the project; 150 kg/ha/yr of N fertilizer will be applied to 3,000



- ha with the project instead of 300 ha without the project; 18 kg/ha/yr of P<sub>2</sub>O<sub>5</sub> will be applied to 3,000 ha in both the with-project and without-project scenarios; 8 liters/ha/yr of herbicides will be applied to 3,000 ha in both the with-project and without-project scenarios.
- d. Livestock management:** It is assumed that poultry production will increase from 5,000 head to 100,000 head with project.
  - e. Irrigation and infrastructure construction:** It is assumed that 1,000 ha of potato fields with drip irrigation systems will be fitted with permanent sprinkler systems. It is also assumed that 10,000 m<sup>2</sup> of poultry production farms will be constructed.
  - f. Management of lowland area:** The percentage of drained area will increase from 10 percent to 100 percent, and the area drained (with the project) will be 3,000 ha; the percentage of rewetted area will increase from 10 percent to 100 percent, and the area rewetted (with the project) will be 3,000 ha.
  - g. Aquaculture:** Annual production of tilapia will increase from 0 (without the project) to 1,000 t (with the project).
- 4. Baseline scenario:** The assumed baseline (or without-project) scenario is consistent with the EFA. For instance, traditional annual crops are not produced with the most climate-smart agricultural practices (such as improved agronomic practices, no tillage, nutrient management, water management, no burning, and manure application).
  - 5. Data sources:** The M&E data collection system, managed by the PCIU for the project.
  - 6. Key assumptions:** The project region has a **tropical** climate with a **moist** moisture regime. The dominant soil type is **low activity clay**. The project implementation phase is **five years**, and the capitalization phase is assumed to be **15 years**. The 20-year implementation period is standard in the use of EX-ACT.
  - 7. Results:** The net carbon balance quantifies GHGs emitted or sequestered as a result of the project compared to the scenario without the project. Over the project duration of 20 years, the project constitutes gross GHG emissions of **-1,878,259 tCO<sub>2</sub>-eq**, net GHG emissions of **-2,393,661 tCO<sub>2</sub>-eq**. The project provides a sink of **119,683 tCO<sub>2</sub>-eq** per year. The main carbon sink of **4,167,524 tCO<sub>2</sub>-eq** arises from the use of improved practices on annual crops.



**Table A3.3: Results of the ex-ante GHG analysis**

Project activities	Over the economic project lifetime (tCO <sub>2</sub> eq)			Annual average (tCO <sub>2</sub> eq/yr)		
	GHG emissions of without-project scenario (1)	Gross emissions of project scenario (2)	Net GHG emissions (2-1)	GHG emissions of without-project scenario (3)	Gross emissions of project scenario (4)	Net GHG emissions (4-3)
Improved varieties (rice, maize, potato)	298,885	-3,868,639	-4,167,524	14,944	-193,432	-208,376
Flooded rice	149,074	503,443	309,369	9,704	25,172	15,468
Livestock management	443	7,804	7,361	22	390	368
Coastal wetlands	0	1,345,575	1,345,575	0	67,279	67,279
Inputs and investments	22,000	119,708	97,709	1,100	5,985	4,885
Aquaculture	0	13,850	13,850	0	692	692
<b>Total</b>	<b>515,401</b>	<b>-1,878,259</b>	<b>-2,393,661</b>	<b>25,770</b>	<b>-93,913</b>	<b>-119,683</b>
<i>Per ha</i>	<i>6</i>	<i>-20</i>	<i>-26</i>	<i>0.3</i>	<i>-1.0</i>	<i>-1.3</i>





**Annex 4: Project costing**

**Table A4.1: Project costs summary (in US\$ )**

<b>Project Components</b>	<b>Project cost</b>	<b>IDA Financing</b>	<b>Beneficiaries</b>	<b>Government</b>
<b>1. Increasing agricultural productivity</b>	<b>20,374,000</b>	<b>20,000,000</b>	<b>21,000</b>	<b>353,000</b>
1.1. Improving water management	16,031,000	16,000,000	21,000	10,000
1.2. Increasing access to technologies, innovations, and advisory services	4,343,000	4,000,000	0	343,000
<b>2. Increasing market access</b>	<b>12,664,000</b>	<b>11,000,000</b>	<b>1,446,000</b>	<b>218,000</b>
2.1. Strengthening producer organizations	3,218,000	3,000,000	0	218,000
2.2. Business development services	1,000,000	1,000,000	0	0
2.3. Financing productive investment projects	8,446,000	7,000,000	1,446,000	0
<b>3. Strengthening institutional capacity</b>	<b>11,207,000</b>	<b>5,000,000</b>	<b>0</b>	<b>207,000</b>
3.1. Strengthening agricultural statistics system	5,207,000	5,000,000	0	5,207,000
3.2. Contingency Emergency Response	0	0	0	0
<b>4. Project coordination and implementation</b>	<b>4,330,000</b>	<b>4,000,000</b>	<b>0</b>	<b>330,000</b>
4.1. Strategic planning, coordination, management	2,500,000	2,500,000	0	0
4.2. Monitoring and evaluation, communication, safeguard	1,830,000	1,500,000	0	330,000
▪ <i>Monitoring and evaluation</i>	<i>700,000</i>	<i>700,000</i>	<i>0</i>	<i>0</i>
▪ <i>Communication outreach activities, knowledge production</i>	<i>500,000</i>	<i>500,000</i>	<i>0</i>	<i>0</i>
▪ <i>Social and environmental safeguards</i>	<i>630,000</i>	<i>600,000</i>	<i>0</i>	<i>30,000</i>
<b>Total Project Costs</b>	<b>42,575,000</b>	<b>40,000,000</b>	<b>1,467,000</b>	<b>1,108,000</b>
<b>Total Financing Required</b>	<b>42,575,000</b>	<b>40,000,000</b>	<b>1,467,000</b>	<b>1,108,000</b>



## Annex 5: Institutional and implementation arrangements

- 1. The existing WAAPP PCIU oversaw the preparation of the project and will be responsible for project implementation. Its staffing will be strengthened to meet the specific needs of the project.** Additional staff will include a director of operations; a rural engineer in charge of irrigation infrastructure and WUAs; a grant management specialist; a procurement specialist; a social development specialist in charge of social safeguards, gender, and youth; an M&E specialist; an accountant; an internal auditor; a communication specialist; and support staff. The reinforced WAAPP PCIU under the responsibility of the Ministry of Agriculture will coordinate the overall implementation of the project on a day-to-day basis. It will coordinate and consolidate the AWP&Bs and oversee all other technical implementing agencies. It will be responsible for all fiduciary aspects of the project, including procurement, disbursement, accounting, financial reporting, and M&E of the project, and for ensuring the auditing of project accounts. It will prepare bi-annual reports recording the progress of the project. All project accounts will be audited annually by independent auditors acceptable to IDA and should be submitted to IDA no later than six months after the closing of the fiscal year in Guinea. The PCIU will act as the Secretariat for the PSC (including preparing the meetings, developing the documents for the meeting, recording the minutes of the meeting, and so on).

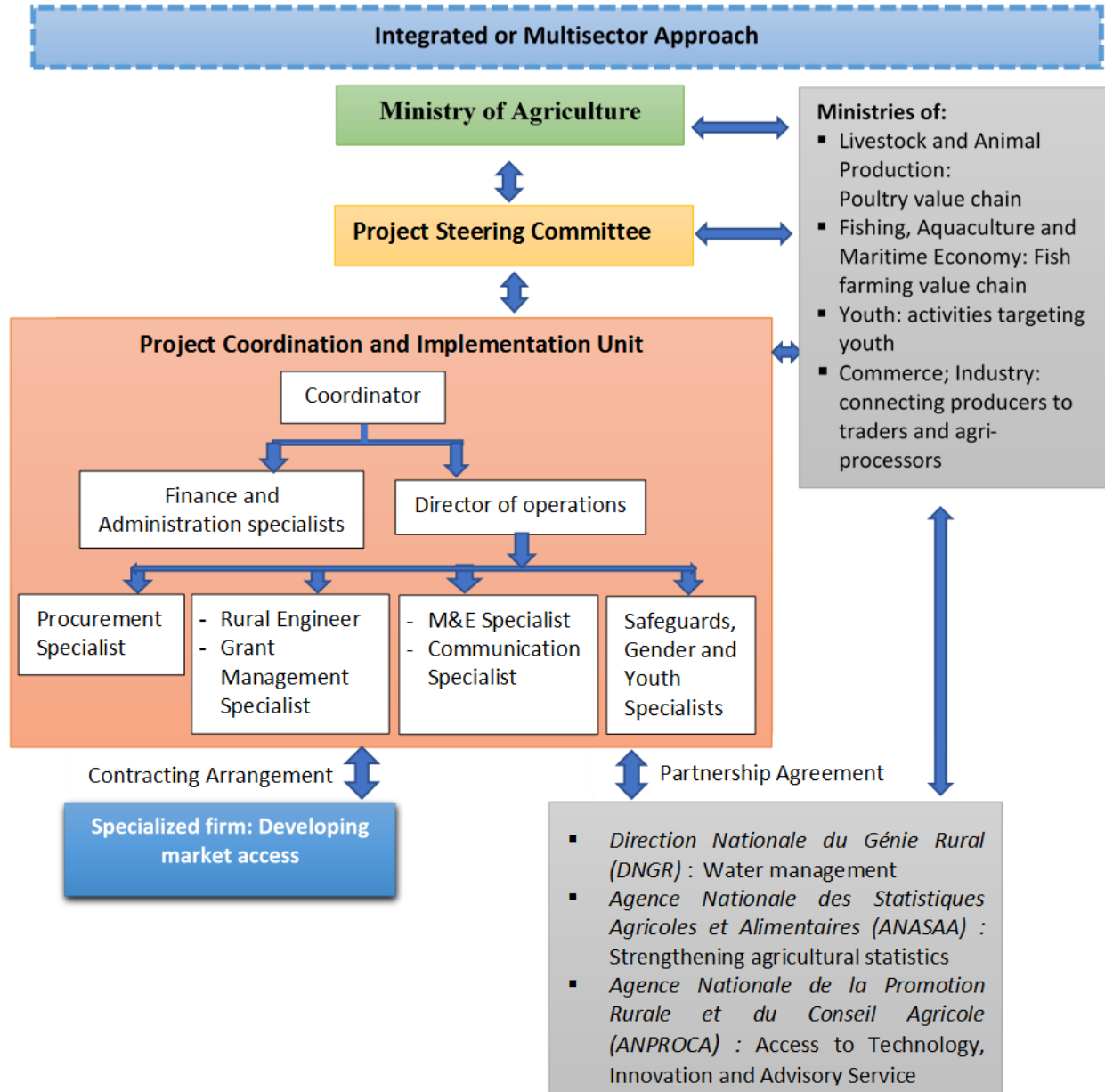
### *Project implementing agencies*

- 2. Specific implementation arrangements are defined for each component and subcomponent, under the overall oversight of the PCIU.** The PCIU will sign results-based partnership agreements with each directorate or institution in charge of implementing a component or subcomponent. The partnership agreements define the assigned objectives; annual action plan; obligations and responsibilities of contracting parties; administrative, technical and financial implementation modalities; date of effectiveness and duration; allocated budget; and categories of eligible expenditures. The PCIU will delegate, through the partnership agreements, the responsibility for component and subcomponent implementation to the relevant directorate or partner while keeping the whole fiduciary responsibility. Partnership agreements will be signed by PCIU with the following agencies:
  - i) Direction Nationale du Génie Rural* (National Directorate for Rural Engineering, DNGR) of the Ministry of Agriculture, for the implementation of Subcomponent 1.1: Improving water management.
  - ii) Agence Nationale de la Promotion Rurale et du Conseil Agricole* (National Agency for Rural Promotion and Agricultural Extension, ANPROCA) and other public and private advisory services for the implementation of parts of Subcomponent 1.2: Increasing access to technology, innovation, and advisory services.
  - iii) Agence Nationale des Statistiques Agricoles et Agro-Alimentaires* (National Agency for Agricultural and Food Statistics, ANASAA) for the implementation of Subcomponent 3.1: Strengthening agricultural statistics system.
- 3. Component 2 (Increasing market access) will be implemented by the PCIU through contracting arrangement with specialized consulting firms.** The PCIU will also work closely with the Chamber of Agriculture; the Chamber of Commerce, Industry; and Craft; as well as CNOP-G and other networks of producer associations. The implementation of Subcomponent 2.3 (Financing productive investment projects) will be managed by the PCIU. Component 4 will be implemented by the PCIU.



4. Figure A5.1 summarizes the organizational structure of the project.

Figure A5.1: Project organizational structure



**Matching grant mechanism**

5. The matching grant processes, procedures, selection criteria, eligibility criteria, obligations of beneficiaries, and other dimensions will be described in detail in the project Matching Grant Implementation Manual (MGIM) to be prepared and validated prior to any disbursement under the matching grant subcomponent. The MGIM will be informed by experiences from successful



agricultural sector and agribusiness development matching grant activities implemented elsewhere in the Africa region (as well as lessons learned from matching grant activities in Guinea).

6. The PCIU will have a matching grant program specialist who will be responsible for the management of the subcomponent and coordination with other parties involved, such as the matching grant selection committee, technical assistance providers, the specialized firm, and the beneficiaries. Grant agreements and financial management will be managed by the Finance and Administration team of the PCIU using a matching grant software module that will capture financial transactions and other information to facilitate M&E reporting needs.
7. **Information and communication:** The PCIU will advertise and promote matching grants through communication channels appropriate for reaching producers, small-scale processors, agricultural SMEs, and their organizations in the prefectures where the project will be active. Efforts will be made to reach women and youth by promotional activities specifically targeting these groups. The project will work closely with the Ministry of Youth to create synergies with their ongoing initiatives on youth insertion in agricultural value chains. The first round of matching grants is expected to be advertised between 12 and 18 months after effectiveness and will be informed by the action plans and initial research anticipated under Subcomponent 2.1. The project is expected to include three rounds of calls for proposals for matching grants no later than the fourth year of project implementation to ensure that all subprojects are completed by the project closing date. These rounds will be staggered by 6-8 months after the first round so that the team can assess impact and make improvements and adjustments before the next round.
8. The PCIU will organize outreach activities to inform beneficiaries about the project, followed by training sessions at the local level where beneficiaries can receive assistance in preparing their concepts. This assistance may only be necessary for promoters of MPs.
9. **Screening:** The first step in the selection process will require prospective beneficiaries to submit concept proposals to the PCIU to assess their eligibility and then perform a high-level screening of projects and beneficiaries. The project will develop separate templates for MPs and SME-subprojects to be screened and selected for business plan development under Subcomponent 3.2. Templates for MPs (for both individual and group sub-windows) will be simpler than those used for SME-subprojects, because the latter will require more financial information, project detail, and information on the promoter's experience and capabilities. Templates will be made available in hard copy for rural target groups and made available online as well. The concept submission process will be implemented through a digital application portal to be developed and posted on the project website, and this application process will be facilitated for "off the grid" beneficiaries.
10. The PCIU will select matching grant concepts to develop into full business plans after the concepts are ranked according to criteria laid out in the project MGIM. The selection methodology will be available to the public, including the criteria and the weights. Criteria will include, among others, return on investment, likelihood of project sustainability and growth, jobs created, feasibility of technical approach, estimated positive externalities of the project, and inclusiveness of the project with respect to the livelihoods of women and youth.
11. After project concepts are screened and selected to go forward, beneficiaries will be required to enter into an agreement with the PCIU, meet all obligations with respect to eligibility requirements, and pledge their participation in training and advisory activities. With the assistance of the specialized firm



and other business support service providers, prospective beneficiaries of the SME-subproject window will be trained, coached, and assisted to develop viable business plans. The team anticipates that up to four months may be needed to develop each SME-subproject business plan, build sufficient technical capacity, and put other prerequisites into place for signing an agreement with SME-subproject grant recipients. The training and business plan development process will be shorter for MPs (for both individual and group sub-windows) and may be completed within 1-2 months, followed by the selection process and signing of the matching grant agreement. A transparent process validated by stakeholders and approved by the World Bank is necessary, as the MP grants are likely to be heavily oversubscribed.

12. **Selection:** Selection criteria and their weights will differ for the two windows. Selection criteria for the MP window will focus more on the impact on vulnerable beneficiaries like women and youth, and on helping producers to start increasing their marketable surplus. These criteria will also be important for the SME-subproject window, but selection criteria will also consider and assign different weight to the novelty of the approach, put more emphasis on the potential for positive externalities for others in the community and sector, and encourage investment by groups and businesses already demonstrating market-oriented behavior.
13. Business plan proposals for both MPs and SME-subprojects will be submitted to a selection committee. The selection committee composition will be proposed by the PSC and approved by the World Bank. Because the business plans anticipated under each window will differ in complexity, the composition of the selection committee that decides which MPs and SME-subprojects to fund may differ. In general, it is envisioned that the committee will be composed of PCIU staff (Project Coordinator, technical and financial specialists), other experts as determined by the PSC, and representation of any FIs that may be providing credit for a specific project. The objectives for constituting the selection committee are technical skill, impartiality, efficiency, economy, confidentiality, and avoiding conflicts of interest. For MPs, a regional approval committee composed of stakeholders will be established to vet funding requests in each prefecture where the project is active. Projects selected for funding will sign a matching grant agreement, and received financing per the terms of the agreement.



## Annex 6: Financial management

### FM and Disbursements arrangements

1. An FM assessment of the implementing unit (PCIU) of WAAPP designated to manage the Guinea Integrated Agricultural Development Project (GIADP/PDAIG), was carried out in February 2018. The objective of the assessment was to determine whether the PCIU has acceptable FM arrangements in place to ensure that the project funds will be used only for the intended purposes, with due attention to considerations of economy and efficiency. The assessment complied with the Bank Directive Financial Management Manual for World Investment Project Financing operation effective March 1, 2010 and last revised on February 10, 2017.
2. Arrangements are acceptable if they are capable of accurately recording all transactions and balances, supporting the preparation of regular and reliable financial statements, safeguarding the project's assets, and are subject to auditing arrangements acceptable to the Bank. These arrangements should be in place when project implementation starts and be maintained as such during project implementation. The assessment concluded that the PCIU satisfies the Bank's minimum FM requirements and therefore is adequate to provide, with reasonable assurance, accurate and timely FM information on the status of the project as required by the Bank.
3. The overall fiduciary risk rating is assessed as substantial, and the mitigation measures proposed (see Table A6.1) will strengthen the internal control environment, maintain the continuous timeliness and reliability of information produced by the PCIU, and maintain an adequate segregation of duties.

Table A6.1: FM action plan

Action	Responsible party	Deadline and conditionality
1- Elaborate PIM, including fiduciary procedures.	PCIU	Before effectiveness
2- Recruit a Senior Accountant with qualifications and experience satisfactory for the Bank	PCIU	Before effectiveness
3- Customize accounting software	PCIU	Three (3) months after effectiveness
4- Recruit internal auditor	PCIU	Three (3) months after effectiveness
5- Recruit an external auditor	PCIU	Six (6) months after effectiveness

4. **Internal control system.** The internal control system will comprise a steering committee to oversee the project activities, an FM procedures manual to define control activities, and an internal audit function to carry out ex-post reviews and to evaluate the performance of the overall internal control system. The composition, the mandate, and frequency of meetings of the steering committee will be strengthened to ensure adequate oversight of the project.
5. **Planning and budgeting.** The PCIU will prepare a detailed annual work plan and budget (AWP&B), which should be approved by the project steering committee. The PCIU will submit the approved AWP&B to the Bank for no objection before the end of previous calendar year.
6. **Accounting.** The SYSCOHADA assigned accounting system in West African Francophone countries will be applicable. The PCIU will customize the existing accounting software to meet project requirements.



7. **Interim financial reporting.** The interim unaudited financial reports (IFRs) are prepared every quarter and submitted to the Bank regularly (**45 days after the end of each quarter**) and on time. The frequency of IFR preparation as well as the format and content of IFRs will remain unchanged.
8. **Annual financial reporting.** The PCIU will produce project annual financial statements, which will comply with SYSCOHADA and Bank requirements. Financial statements may comprise:
  - Project presentation and project developments and progress during the year, to provide context to (or other explanations of) financial information reported.
  - Statement of sources and uses of funds which recognizes all cash receipts, cash payments, and cash balances.
  - A statement of commitments.
  - Accounting policies adopted and explanatory notes.
  - A management assertion that project funds have been expended for the intended purposes as specified in the relevant financing agreements.
9. **Auditing.** The PCIU will submit audited project financial statements satisfactory to the Bank every year within six months after closure of the fiscal year. A single opinion on the audited project financial statements in compliance with the International Federation of Accountants will be required in addition to a management letter. The management letter will contain auditor observations and comments and recommendations for improvements in accounting records, systems, controls, and compliance with financial covenants in the Financial Agreement. The PCIU should recruit a technically competent and independent auditor no later than six months after the project effectiveness date.

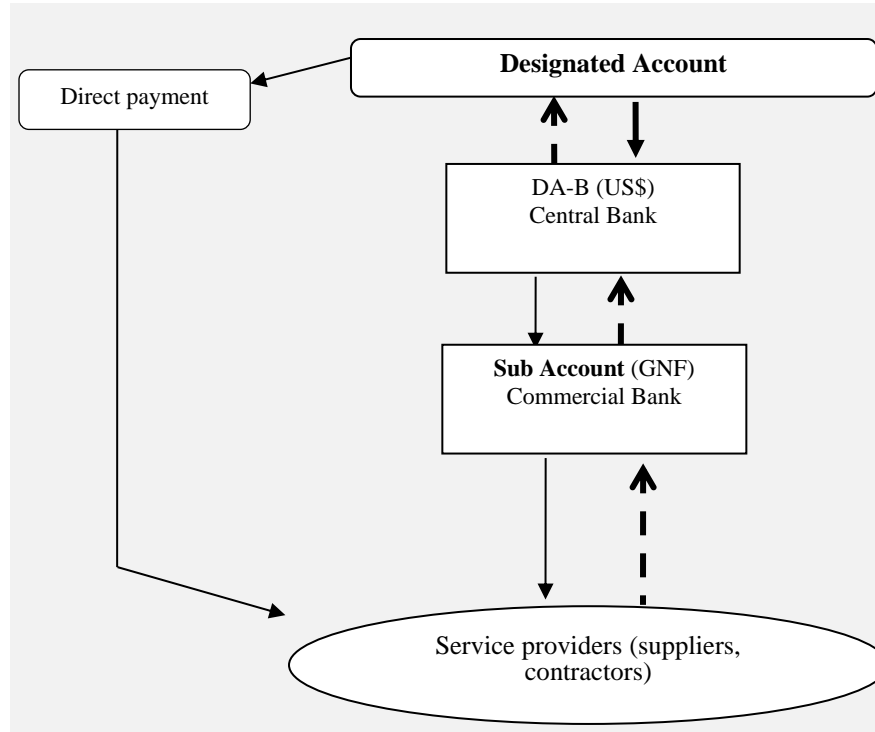
**Table A6.2: Audit Report Requirements**

Report	Deadline	Responsible
Audited financial statements, including audit report and management letter	6 months after the end of the year	MEF/PCU

10. The project will comply with the Bank disclosure policy of audit reports and place the information provided on the official website within one month of the report being accepted as final by the team.
11. **Upon Credit effectiveness, transaction-based disbursements will be used.** The project will finance 100 percent of eligible expenditures inclusive of taxes. Figure A6.1 depicts the flow of funds. A new Designated Account (DA) will be opened at the Central Bank (*Banque Centrale de la République de Guinée*) and a Project Account (PA) in a commercial bank under terms and conditions acceptable to IDA. An initial advance up to the ceiling of the DA will be made and subsequent disbursements will be made against submission of Statements of Expenditures (SOE) reporting on the use of the initial/subsequent advances. The option to disburse against submission of quarterly unaudited IFR (also known as the Report-based disbursements) could be considered, as soon as the project meets the criteria. The other methods of disbursing the funds (reimbursement, direct payment, and special commitment) will also be available to the project. The minimum value of applications for these other methods is 20 percent of the DA ceiling. The authorized signatory for each entity will sign and submit Withdrawal Applications electronically using the eDisbursement module accessible from the Bank’s Client Connection website.



Figure A6.1 Flow of funds



12. **Support to the implementation plan.** FM supervisions will be conducted over the project’s lifetime. Project supervision will take a risk-based approach. Based on the outcome of the FM risk assessment, the following implementation support plan is proposed (Table A6.3). The objective of the implementation support plan is to ensure the project maintains a satisfactory FM system throughout its life.

Table A6.3: FM Implementation Support Plan

FM activity	Frequency
<b>Desk reviews</b>	
Interim financial reports review	Quarterly
Audit report review of the program	Annually
Review of other relevant information such as interim internal control systems reports	Continuous as they become available
<b>On-site visits</b>	
Review of overall operation of the FM system (Implementation Support Mission)	Every 6 months for substantial risk rating
Monitoring of actions taken on issues highlighted in audit reports, auditors’ management letters, internal audits, and other reports	As needed
Transaction reviews	As needed
<b>Capacity-building support</b>	
FM training sessions	During implementation and as and when needed





### Annex 7: Procurement

1. Table A7.1 summarizes the requirements and actions for National Open Competitive Procurement.

**Table A7.1: Requirements and actions for National Open Competitive Procurement**

Requirements	Actions
Open advertising of the procurement opportunity at the national level.	No action needed.
The procurement is open to eligible firms from any country.	The eligibility conditions stated in Art. 51 of the <i>Code des Marchés Publics de Guinée</i> (Guinea Procurement Code) must be validated by the World Bank to ensure compliance with its rules. This is reflected in the approved PPSD.
The request for bids/request for proposals will require that bidders/proposers submitting bids/proposals present signed acceptance at the time of bidding to be incorporated in any resulting contracts, confirming application of, and compliance with, the Bank’s Anti-Corruption Guidelines, including without limitation the Bank’s right to sanction and the Bank’s inspection and audit.	The form elaborated by OPCS must be added to each contract agreement with bidders/consultants.
Contracts with appropriate allocation of responsibilities, risks, and liabilities.	The country bidding documents are largely inspired by the Bank’s standard procurement documents but have not yet been assessed by the Bank. These include requirement for consistency with NPF.
Publication of contract award information.	The contract award information stated in Art. 12 of Procurement Law and in Art. 67 of Procurement Code. Publication is required for all contracts awarded by competitive methods. The requirement must be extended to all contracts.
Rights for the Bank to review procurement documents and activities.	The requirement should be included in the Procurement Plan.
An effective complaints mechanism.	The PCIU will refer to Art. 123-132 of Procurement Code.
Maintenance of records of the Procurement Process.	Art. 15 of the Procurement Code requires the ARMP to collect and maintain records of all procurement processes. For other actors, the requirement is not specified. The PCIU must spell out the practical modalities and the appropriate documentation to archive.

#### Procurement risk assessment

2. A procurement assessment was conducted as part of project preparation in February 2018. It shows that: (i) the main procurement risk lies in the fact that the PCIU is required to interact with various partners within the government that will be involved in the procurement process; (ii) in the Ministry of Agriculture there are: (a) one Procurement Officer (*Personne Responsable des Marchés Publics*, PRMP), who is responsible for the ministry’s public procurement activities; and (b) a tender committee, which will be involved in the project procurement process; (iii) the existing ministry staff and the tender committee members have varied procurement skills and some with insufficient experience in Bank procurement procedures; (iv) outside the Ministry of Agriculture, two (2) other actors are involved in the public procurement process—the *Direction Nationale des Marchés Publics*,



under the Ministry of Finance, and the Direction du Contrôle des Procédures de Passation et d'exécution des Marchés Publics (ACGPMP). There are significant time delays in the procurement process. The assessment has rated the overall procurement risk as high.

**Procurement mitigation measures**

- 3. Based on the PPSD and procurement risk assessment, the procurement mitigation measures shown in Table A7.2 are proposed.

**Table A7.2: Proposed procurement risk mitigation measures**

Implementation agency	Procurement mitigation measures	By when
MoA (PCIU)	Recruitment of Procurement Specialist (PS) with adequate qualifications and experience	Effectiveness condition
MoA / World Bank	Train the PS, PRMP, Tender Committee in the Bank's New Procurement Framework	As soon as possible after effectiveness
MoA-PCIU	Elaborate and submit a Project Implementation Manual (PIM), with a Procurement section, for IDA approval	Effectiveness condition
PCIU	Set up an acceptable filing system in the PCIU	Needs to be described in the PIM



## ANNEX 8: IMPLEMENTATION SUPPORT PLAN

### Strategy and Approach for Implementation Support

1. The strategy for supporting project implementation will focus on successfully mitigating the risks identified at various levels, and supporting the risk management efforts proposed in the Systematic Operations Risk-rating Tool (SORT). The approach entails close monitoring of the implementation of the project's technical design, as well as governance, fiduciary, and safeguard matters. It will consist of (a) implementation support missions, carried out jointly with development partners as needed for technical support; and (b) technical assistance (TA) in areas of weakness and where new approaches and/or procedures have been introduced.
2. One of the biggest implementation challenges identified is that overall capacity of many ministerial services is weak. To respond to this challenge, and to ensure that project resources are being used effectively to achieve the PDO, the supervision strategy is composed of measures to review progress and respond to implementation issues that include the following:
  - (a) *Implementation support missions.* The World Bank Task Team will conduct semiannual review and implementation support missions to review project implementation performance and progress toward the achievement of the PDO. Given the overall project design and scope, a multidisciplinary team comprising technical specialists, along with fiduciary, environmental, social, and operations specialists, will be needed to support the government in implementing the Project. The first implementation support mission will take place as soon as possible after credit effectiveness to provide startup support through direct and timely feedback on the quality, soundness, and acceptability of implementation plans.
  - (b) *Midterm Review.* A Midterm Review will be carried out midway in the implementation phase, by the end of Project Year 3. It will include a comprehensive assessment of progress in achieving the project objectives laid out in the Results Framework. The Midterm Review will also serve as a platform for revisiting design issues that may require adjustment to ensure satisfactory achievement of the Project's objective.
  - (c) *Other reviews.* Each year, the Bank and the Ministry of Agriculture will consider the need for additional analytical, advisory, and knowledge-sharing activities and/or third-party reviews. Such reviews will be planned over and above the semiannual implementation support missions.
  - (d) *Implementation completion.* At the close of the Project, the Bank will carry out an implementation completion review to assess the success of the Project and draw lessons from its implementation.
3. *Objective of implementation support missions.* The implementation support missions will have the combined aim of reviewing the quality of implementation, providing solutions to implementation problems, and assessing the likelihood of achieving the PDO. More specifically, they will:
  - (a) Review implementation progress by component, including institutional development aspects;
  - (b) Provide solutions to implementation problems as they arise;



- (c) Review with the PCIU the project action plan and disbursement programs for the next six months;
  - (d) Review the project's fiduciary aspects, including disbursement and procurement;
  - (e) Verify compliance of project activities with the Bank's environmental and social safeguard policies;
  - (f) Determine progress toward the PDO against targets in the Results Framework and assess the quality of implementation by reviewing case studies and results of surveys to measure results indicators; and
  - (g) Review the quality of capacity-building activities, which are crucial to implementing the Project effectively.
4. The missions will combine field visits, interactive workshops with stakeholders for feedback, and regional and national workshops to highlight implementation issues, pick up lessons emerging from implementation, and share mission recommendations, including agreements on actions moving forward. Missions will also review quarterly/annual reports and various studies.
  5. *Technical assistance (TA)*. Implementation support will include technical support from the Bank, FAO, and possibly other bilateral/multilateral agencies for critical aspects of the Project, to ensure proper financial management and procurement, and to monitor social and environmental safeguards. The objective of the technical support would be to help the project teams internalize good practices and remove implementation bottlenecks as they are identified during implementation support missions.

### **Implementation Support Plan and Resource Requirements**

6. *Technical support*. Project coordination will remain somewhat complex, albeit based on existing experience with the ongoing projects in Guinea. The first two years of implementation will focus more on technical support. Thereafter, the focus will shift to more routine monitoring of progress, troubleshooting, and assessments based on the Results Framework. The support missions will be complemented by regular short visits by individual specialists to follow up on specific thematic issues as needed. In addition to the Bank's core supervision team, the FAO Investment Center, as well as several consultants, may be mobilized periodically to provide TA to implementing agencies in the form of hands-on training and mentoring.
7. *Financial support*. The Project Financial Management (FM) Specialist, based in the country office, will review the FM systems, including their continued adequacy; evaluate the quality of the budgets and implementing agencies' adherence to these budgets; review the cycle of transaction recording through to final report generation; evaluate the internal audit function; review Interim Financial Reports and/or annual Financial Statements; follow up on the advances to the designated accounts; follow up on both internal and external audit reports; and periodically assess the Project's compliance with the FM Manual and Financial Agreement. Table A6.3 in Annex 6 summarizes the FM implementation support plan.
8. *Procurement support*. With regards to procurement, the Bank will provide implementation support to the client through a combination of prior and post-reviews, procurement training to project staff and



relevant implementing agencies, and periodic assessment of the Project’s compliance with the procurement manual. Implementation support missions will be geared toward (a) reviewing procurement documents, (b) providing detailed guidance on the Bank’s Procurement Guidelines, and (c) monitoring procurement progress against the detailed Procurement Plan. Based on the recommendations of the fiduciary assessments of the implementing agencies, and in addition to the prior review supervision to be carried out from the Bank office, the semiannual supervision missions will include field visits, of which at least one mission will involve post-review of procurement activities.

9. *Safeguards.* The Bank specialists in social and environmental safeguards will have responsibility for supervising safeguard activities. They will conduct supervision of the Project’s safeguard activities at least twice a year and draft action plans to improve implementation.

10. *Focus of implementation support.* Table A8.1 summarizes the focus of implementation support during the project’s implementation.

**Table A8.1 Main implementation support activities**

Time	Focus	Skills needed
<b>First 12 months</b>	<ul style="list-style-type: none"> <li>Finalization of the terms of reference for the recruitment of:               <ul style="list-style-type: none"> <li>Consultants for the project implementation and matching grant manuals</li> <li>PCIU staff</li> <li>Specialized firms</li> </ul> </li> <li>Monitoring of the effectiveness conditions and dated covenants</li> <li>Project official and technical launching</li> <li>Outreach activities, consultations and communication about project targeting potential beneficiaries</li> <li>Finalization of the feasibility study for irrigation</li> <li>Close monitoring of the procurement process for diligence in the selection of firms for the irrigation works</li> <li>Capacity building or training for PCIU staff</li> <li>Guidance on applying safeguard instruments</li> <li>Establishment of the M&amp;E system and baseline study</li> <li>Support for project effective startup of activities</li> </ul>	<ul style="list-style-type: none"> <li>Agricultural economics</li> <li>Private sector and finance</li> <li>Water resource management</li> <li>Statistics - econometrics</li> </ul>
<b>12–48 months</b>	<ul style="list-style-type: none"> <li>Monitoring implementation performance and assessing progress toward achieving PDO</li> <li>Review of annual work plans and disbursement schedule</li> <li>Assess quality of participatory process and capacity-building activities</li> <li>Review quality of quarterly/annual reports, data, and various produced studies</li> <li>Assess quality of implementation process</li> <li>Assess quality of M&amp;E system: indicators and quality of data collected</li> <li>Review of audit reports and Interim Financial Reports</li> <li>Review adequacy of the FM system and compliance with financial management covenants</li> <li>Assess quality of safeguards instruments and their application</li> <li>Intensive field visit to measure progress and exchange with beneficiaries for feedback</li> <li>Formulate recommendations and agree on actions plans</li> <li>Policy dialogue through meeting with Ministries to build ownership</li> </ul>	<ul style="list-style-type: none"> <li>Financial management</li> <li>Procurement</li> <li>Social development</li> <li>Environment</li> <li>Communication</li> <li>Operations</li> </ul>



## Annex 9: References

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### Annex 10: Map

