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Report No: PAD2029

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED LOAN

IN THE AMOUNT OF EUR 105.5 MILLION
(US$130 MILLION EQUIVALENT)

TO THE

REPUBLIC OF ANGOLA

FOR THE

COMMERCIAL AGRICULTURE DEVELOPMENT PROJECT

May 7, 2018

Agriculture Global Practice
Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective March 30, 2018)

Currency Unit = Angolan Kwanza (AOA)
US$1.00 = AOA 167.5
AOA 1.00 = US$0.0060
US$1.00 = EUR 0.8115
EUR 1.00 = US$ 1.2322

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AFD	French Development Agency (*Agence française de développement*)
AfDB	African Development Bank
APPSA	Agricultural Productivity Program for Southern Africa
CADP	Commercial Agriculture Development Project
CPS	Country Partnership Strategy
DA	Designated Account
DL	Disbursement Letter
EOI	Expression of Interest
EFA	Economic and Financial Analysis
ENDE	National Electricity Distribution Company (*Empresa Nacional de Distribuição de Electricidade*)
ERR	Economic Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FGC	Credit Guarantee Fund (*Fundo de Garantia de Crédito*)
FM	Financial Management
GDP	Gross Domestic Product
GEPE	Studies, Planning, and Statistics Unit (*Gabinete de Estudos, Planeamento e Estatística*)
GHG	Greenhouse Gas
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
GBV	Gender-based Violence
IFC	International Finance Corporation
IFR	Interim Financial Report
IIA	Agriculture Research Institute (*Instituto de Investigação Agronómica*)

INEA	Angolan Institute of Roads (*Instituto de Estradas de Angola*)
INHIA	National Irrigation Development Institute (*Instituto Nacional de Hidráulica Agricola*)
IPF	Investment Policy Financing
ISP	Implementation Support Plan
M&E	Monitoring and Evaluation
MINAGRIF	Ministry of Agriculture and Forestry
MINEA	Ministry of Energy and Water
MINFIN	Ministry of Finance
MIS	Management Information System
MOSAP	Market Oriented Smallholder Agriculture Project
MTR	Midterm Review
MVA	Megavolt Amperes
NDP	National Development Plan
NGO	Nongovernmental Organization
NPL	Nonperforming Loan
NPV	Net Present Value
O&M	Operation and Maintenance
PAD	Project Appraisal Document
PAPAGRO	Program for the Acquisition of Agro-livestock Products (*Programa de Aquisição de Produtos Agropecuários*)
PCG	Partial Credit Guarantee
PDA	Provincial Directory of Agriculture
PDMPSA	Medium-Term Agriculture Sector Development Plan (*Plano de Desenvolvimento de Médio Prazo do Sector Agrário: 2018 -2022*)
PFI	Participating Financial Institution
PEMFAR	Public Expenditure Management and Financial Accountability Review
PFM	Public Financial Management
PIAFOM	Program for Market-Oriented Family Poultry Production
PIS	Project Implementation Subcommittee
PIU	Project Implementation Unit
PLR	Performance and Learning Review
PMP	Pest Management Plan
POM	Project Operational Manual
PPA	Project Preparation Advance
PPIT	Provincial Project Implementation Team
PRODESI	Program to Support Production, Diversification of Exports, and Import Substitution
PSC	Project Steering Committee
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SADCP	Smallholder Agriculture Development and Commercialization Project
SIGFE	Integrated Financial Management System
SMEs	Small and Medium Enterprises
SOE	Statement of Expenditures
SORT	Systematic Operations Risk-Rating Tool
STEP	Systematic Tracking of Exchanges in Procurement
TIC	Technical Investment Committee

TOR	Terms of Reference
TSP	Technical Service Provider
UN	United Nations

Regional Vice President:	Makhtar Diop
Country Director:	Elisabeth Huybens
Senior Global Practice Director:	Juergen Voegele
Practice Manager:	Dina Umali-Deininger
Task Team Leader(s):	Maria de Fatima de Sousa Amazonas, Zenaida Hernandez Uriz

BASIC INFORMATION

Country(ies)	Project Name	
Angola	Angola: Commercial Agriculture Development Project	
Project ID	**Financing Instrument**	**Environmental Assessment Category**
P159052	Investment Project Financing	B - Partial Assessment

Financing & Implementation Modalities

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

Expected Approval Date	Expected Closing Date
29-May-2018	31-May-2024

Bank/IFC Collaboration

Yes

Proposed Development Objective(s)

The proposed Project Development Objective is to increase productivity and market access for selected beneficiaries in the project areas.

Components

Component Name	Cost (US$, millions)
Promotion and Support for Agribusiness Development	78.86

Infrastructure for Production and Marketing	94.27
Institutional Strengthening and Improved Business Environment	39.43
Project Management, Monitoring and Evaluation	14.79

Organizations

Borrower:	Ministry of Finance
Implementing Agency:	Ministry of Agriculture

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	227.35
Total Financing	227.35
of which IBRD/IDA	130.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	130.00

Non-World Bank Group Financing

Other Sources	97.35
FRANCE: Govt. of [MOFA and AFD (C2D)]	97.35

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2018	2019	2020	2021	2022	2023	2024	2025
Annual	0.00	3.39	11.30	17.00	33.90	45.20	11.30	7.91
Cumulative	0.00	3.39	14.69	31.69	65.59	110.79	122.09	130.00

INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture

Contributing Practice Areas

Energy & Extractives, Environment & Natural Resources, Finance, Competitiveness and Innovation, Transport & Digital Development

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	High
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Substantial
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
Not later than three (3) months from the effective date, purchase and install a computerized accounting software for the project acceptable to the Bank.

Sections and Description
Not later than two (2) months from the effective date, appoint two accountants under terms of reference and with qualifications and experience acceptable to the Bank.

Sections and Description
Not later than four (4) months from the effective date, appoint an independent external auditor under terms of reference and with qualifications and experience acceptable to the Bank.

Sections and Description
Not later than six (6) months from the effective date, appoint an internal auditor under terms of reference and with qualifications and experience acceptable to the Bank.

Sections and Description
No later than three (3) months after the effective date, establish, and thereafter maintain throughout project implementation, the Project Steering Committee with composition and mandate acceptable to the Bank.

Sections and Description
No later than two (2) months after the effective date, the Borrower shall furnish a for the Bank's review and final approval the first work plan and budget for the project for the first two (2) years.

Sections and Description
The Borrower shall ensure that: (a) during Project implementation, the FGC uses the proceeds of the Subsidiary Financing for purposes of providing partial credit guarantees to cover credits extended by eligible PFIs to eligible farmers and agribusiness SMEs to finance eligible activities to be carried out by said eligible farmers and agribusiness SMEs, all in accordance with the POM and PCG Fund Operations Manual; and (b) after the Closing Date, the FGC uses the proceeds of any Subsidiary Financing, which are remaining after any payments under said partial credit guarantees, for purposes of providing partial credit guarantees to cover credits extended by eligible PFIs to eligible farmers and agribusiness SMEs to finance eligible activities to be carried out by said eligible farmers and agribusiness SMEs.

Conditions

Type	Description
Effectiveness	Article 5.01. (a). The Co-financing Agreement has been executed and delivered and all conditions precedent to its effectiveness or to the right of the Borrower to make withdrawals under it (other than the effectiveness of this Agreement) have been fulfilled.
Effectiveness	Article 5.01. (b). The adoption by the Borrower of a Project Operational Manual, in form and substance satisfactory to the Bank.
Disbursement	Section III. B. 1. (b). No disbursement shall be made under Category 1 unless and until a Matching Grants Operations Manual, in form and substance satisfactory to the Bank, is

	approved by the Borrower.
Type Disbursement	Description Secion III. B. 1. (c). No disbursement shall be made under under Category 2 unless and until (i) the Subsidiary Agreement is executed, in form and substance satisfactory to the Bank; (ii) the PCG Fund Operations Manual, including, *inter alia*, the identification and details of the account for the capitalization of the FGC for purposes of Part 1.2. of the Project, is adopted by the competent body of the FGC, in form and substance satisfactory to the Bank.
Type Disbursement	Description Secion III. B. 1. (d). No disbursement shall be made under under Category 3 unless and until at least two PFIs are selected by the FGC, in a manner acceptable to the Bank, and in accordance to the PCG Fund Operations Manual.
Type Disbursement	Description Secion III. B. 1. (e) and (f). No disbursement shall be made under under Category 4 unless and until the amounts allocated for the First Capitalization and the Second Capitalization have been fully committed in partial credit guarantees to cover eligible loans of farmers and agribusiness SMEs, on terms and conditions acceptable to the Bank
Type Disbursement	Description Secion III. B. 1. (e) and (f). No disbursement shall be made under under Category 5 unless and until the amounts allocated for the First Capitalization and the Second Capitalization have been fully committed in partial credit guarantees to cover eligible loans of farmers and agribusiness SMEs, on terms and conditions acceptable to the Bank
Type Disbursement	Description Secion III. B. 1. (g). under Category 7 unless and until (i) the Inter-ministerial MoU is executed, in form and substance satisfactory to the Bank; and (ii) a detailed rural electrification pipeline and plan for the Project Areas, in form and substance satisfactory to the Bank, is approved by the MINEA and MINAGRIF.

ANGOLA
ANGOLA: COMMERCIAL AGRICULTURE DEVELOPMENT PROJECT

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I. STRATEGIC CONTEXT

A. Country Context

1. **The Republic of Angola faces important development challenges despite its oil and mineral wealth.** With around 25.8 million inhabitants, of which 63 percent are urban,[1] Angola is the seventh most populous country in Africa. Angola is one of the largest oil exporters in the region and is rich in diamonds and other mineral resources. Yet, despite the country's middle-income status with gross domestic product (GDP) per capita of over US$3,500, poverty remains pervasive with 28 percent of the population, in 2014, living at or below the international poverty line of US$1.90 per day.[2] Rural areas house 64 percent of the Angolan poor. Large parts of the rural population lack access to basic services. Life expectancy is 52.3 years and the country ranks 149 out of 188 on the Human Development Index.

2. **Propelled by the expansion of the oil sector, Angola experienced record growth until the collapse of oil prices after 2014, which drove the country into a deep macroeconomic crisis.** This was inevitable because oil still represents about one-third of GDP, over 95 percent of export earnings, and 75 percent of government revenue. Fiscal and external deficits, rising public debt and high inflation have weakened economic activity. Lower government expenditures and a reduced public-sector wage bill, compounded by the elimination of fuel subsidies have depressed private consumption. Foreign exchange controls, introduced to contain depreciation of the Angolan kwanza, fueled a parallel currency market and delayed private investments by limiting imports of essential inputs. Private credit was hampered by financial sector fragility, including the rising level of non-performing loans (NPLs) and government debt.

3. **A new growth model, grounded in private sector participation and economic diversification, is an urgent priority.[3]** Years of economic diversification policies based on import substitution and large-scale government-sponsored projects made little progress; most goods consumed in Angola continue to be imported.[4] Angola's private sector is small and dual, with a large population of mostly informal microenterprises, and key sectors dominated by state-owned or government-affiliated firms. New and better jobs are needed for Angola's youth: 65 percent of the population is under 24 years of age. However, private investment in non-oil sectors has been hampered by the lack of competitiveness and a challenging investment climate. The World Economic Forum's Global Competitiveness Report 2014–2015 ranked Angola 140 out of 144 economies, while the country ranked 175 of 190 economies in the Doing Business 2018 Report. Angola also lagged other Sub-Saharan Africa countries in the 2016 Worldwide Governance Indicators, including on control of corruption, government effectiveness, and rule of law.

4. **The presidential transition in 2017 has led to an ambitious reform program for a more balanced growth, driven by a strong private sector.** Former Minister of Defense, João Lourenço,

[1] Population Census, 2014.
[2] *Inquérito sobre o Bem-Estar da População* 2009, INE, UNICEF, World Bank. At US$3.00 per day, this increases to 55 percent.
[3] World Bank. Republic of Angola, Policy Notes 2018.
[4] See National Development Plan (NDP) 2013–2017 and its predecessor. Angola has the potential to export building materials, coffee, honey, fishery products and byproducts, woods, iron ore, alcoholic and nonalcoholic beverages, vegetables, and tubers.

succeeded President dos Santos who had been in power for the previous 38 years. Initial policy measures outlined in the Government's six-month plan (*Plano Intercalar*) aimed at: (a) continuing the fiscal consolidation process and ensuring public debt sustainability; (b) consolidating and strengthening monetary and foreign exchange policies; (d) strengthening the financial sector; (e) improving the business environment and the productivity and competitiveness of local companies, and attracting foreign direct investment. The Government has followed through on these measures, including fiscal consolidation and re-balancing of the foreign exchange market by un-pegging the currency from the U.S. dollar and allowing the Angolan kwanza to depreciate. Revising the investment law, removing restrictions to foreign investment, easing visa requirements, opening markets to competition, launching a privatization program, and fighting corruption are important steps that the Government is taking to increase investor confidence in Angola. Building on previous efforts to improve business start-ups and labor laws, the Government is stepping up business environment reforms. The Government is also launching a program to support diversification and improve competitiveness, including cross-cutting and sector-specific measures (*Programa de Apoio à Produção, Diversificação das Exportações e Substituição das Importações,* PRODESI).

B. Sectoral and Institutional Context

5. **Angola's agriculture sector has underperformed in recent decades, but it is the main opportunity and government priority for economic diversification and food security.** The country has an abundance of land and water and diverse climatic and soil conditions to produce a large variety of crops. Yet, only 8 to 14 percent of its 59 million ha of agricultural land is cultivated, mainly by small-scale family farms with limited access to inputs, mechanization and infrastructure, and have low productivity.[5] The agricultural sector employs 46 percent of the workforce and represents around 10 percent of GDP. It remains the main source of income for 90 percent of the 8.5 million Angolans living in rural areas. Smallholders represent over 80 percent of the agricultural production and 92 percent of land under cultivation.[6] These are primarily farms used communally for subsistence farming, but include smallholders selling surplus production in the market. Of the many cooperatives and producer groups, few are registered and/or active, and market-oriented, and collective decision making is uncommon. However, the foundation for more organized approaches does exist. Past efforts to strengthen producer organizations, including under the World Bank-supported Market Oriented Smallholder Agriculture Project (MOSAP) have yielded positive results. Small and medium size commercially oriented farmers that market their produce typically do so individually through informal channels and have the potential to strengthen their role as aggregators.[7]

6. **Protracted conflict eroded the sector's technical capacity, destroyed basic infrastructure, and isolated production areas from markets.[8]** Angola's once thriving production and export of coffee,

[5] United Nations Food and Agriculture Organization (FAOSTAT, 2017). Some 4.9 million ha are arable land, 0.29 million ha have permanent crops, and 54 million ha are permanent prairies and pasture.
[6] Smallholders in Angola typically have landholdings of up to 2 ha.
[7] FAO. 2018. *Rapid Assessment Characterization of Potential Beneficiaries*.
[8] The 27-year civil war following independence in 1975 killed 1 million people; displaced another 4 million; and devastated the country's infrastructure, technical knowledge, and skills.

cotton, tobacco, and sugarcane all but ceased by the 1990s.[9] Yields in maize, beans, and soybean remain significantly lower than other lower-middle-income countries in Africa, such as Kenya, Ghana, and Zambia.[10] Agriculture statistics are also weak but should improve with the agricultural census planned under the World Bank-financed Angola Statistics Project (P157671).

7. **Commercial agriculture is an emerging sector in Angola with high potential, opportunity, and demand.** A small but growing agribusiness sector is developing linked to rising demand in urban centers. Spending in food and nonalcoholic beverages is expected to increase from US$15 billion in 2017 to US$21 billion by 2021.[11] A formal food distribution sector has developed, mainly to serve the Luanda market. According to investors consulted during project preparation, food processing presents opportunities to grow from its nascent size, provided the macroeconomic environment improves. Supermarket chains have started developing commercial partnerships with small and medium producers to reduce imports and increase freshness and control over quality. Interviews with national off-takers (distributors of fresh products, supermarkets, manufacturing companies, and hotels) revealed strong interest in the development of commercial agriculture, in close alignment with the new Government's expressed priorities. Primary factors constraining commercial agriculture—and where this project intends to intervene—are summarized in the following paragraphs.

8. **Access to finance is hindering the commercial agriculture sector.** Overall, banks' appetite to lend has decreased with the economic slowdown and rising non-performing loans (NPLs),[12] despite liquidity being available for additional lending to the private sector.[13] Agriculture's share of overall credit has remained low—less than 5 percent. The enabling environment for promoting agricultural finance remains undeveloped.[14] While government programs such as *Angola Investe* offer subsidized credit, guarantees, and a public risk capital fund, most supported projects are in the non-agribusiness sectors and concentrated in Luanda. The Angola Development Bank also offers lines of credit for agriculture and a new agency, the Agriculture Development Fund, was created to promote agriculture financing. The Commercial Agriculture Development Project (CADP) would catalyze the engagement of commercial banks in agriculture.

9. **Infrastructure, an essential enabling factor for market access and competitiveness, is poor.** Market links are constrained by poor road connectivity, storage, and commercial infrastructure. The total road network in Angola is about 76,000 km, much of which needs rehabilitation.[15] The Government has invested heavily in improving the transport network over the last decade, including roads and railways, but limited budget has been available for rural roads. Furthermore, the limited reach of the electricity grid and the high cost of operating generators hamper the competitiveness of agro-

[9] Jose de Assunção Sambo Tomas. 2013. "Agriculture as a Tool for Development in Angola." *African Journal of Agriculture*. 8 (50): 6643–6644.
[10] FAOSTAT, latest year available. http://www.fao.org/faostat/en/#home.
[11] BMI Research. 2017 Angola Retail Report. Q2 2017.
[12] State-owned *Banco de Poupança e Crédito* concentrates 80 percent of NPLs and is being rescued by the Government.
[13] As of December 2012, liquid assets over total assets was 34 percent, liquid assets to short-term liabilities was 43 percent, and the loan to deposit ratio was 49 percent.
[14] Including agricultural insurance, warehouse receipts, equipment leasing, and a mobile collateral registry.
[15] Road density is 6 km per 100 km², one of the lowest in Southern Africa. The rural access index is 42 percent, which is the fourth lowest in the world after South-Sudan, Chad, and Mali (World Development Indicators).

processing, irrigated agriculture, and livestock. The so-called 'last-mile' infrastructure investments would have a high payoff for agribusiness small and medium enterprises (SMEs) and will be a focus of the CADP in the selected project areas.

10. **Lack of technical knowledge, skills, and access to inputs limit the agricultural sector's growth and development.** Poor agronomic practices, including scant use of improved technology (for example, seeds, fertilizers, and irrigation), undermine productivity, diversification, and the expansion of land under cultivation. Most agricultural inputs and technologies are imported and remain beyond the reach of most farmers and agribusiness SMEs. These shortcomings are compounded by low technical capacity all along the value chain. This starts with weak, underfunded agriculture research institutions and few higher education or vocational skills training centers, affecting opportunities for youth in higher-value agriculture. The Agricultural Development Institute (*Instituto de Desenvolvimento Agrário*) of the Ministry of Agriculture and Forestry (MINAGRIF) provides extension services: around 700 agronomists/technicians service about 4 million smallholders—a ratio of one extension worker to 5,722 producers.[16] The Smallholder Agriculture Development and Commercialization Project (SADCP) (P154447) is strengthening extension services for smallholders, while the CADP will provide technical support to eligible commercial farmers and agribusiness SMEs.

11. **Women constitute over 70 percent of the active agricultural labor force and dominate food crop production and informal marketing channels.**[17] Women are responsible for household food security and have few economic alternatives outside agriculture. The identified gender gaps in the agricultural sector include access to economic resources—land, cash, machinery, and credit—and to market institutions and public infrastructure; access to agricultural inputs and technical knowledge; and access to income-generating projects.[18] Effort is required to help women improve their technical capacity and access to capital, enabling their transition to higher-value activities and increasing their participation in commercial agriculture. The CADP will finance training and organization and ensure women's access to credit and technical support for the implementation of viable business plans. Women's participation in the project will be encouraged by providing targeted awareness raising, priority focus on women producers, and dedicated technical support to women farmers and SME owners. The project databases will collect gender-disaggregated data.

12. **Climate change requires major advances in the agricultural sector.**[19] Angola's estimated total greenhouse gas (GHG) emission stands at 41.6 ktCO_2e in 2012, of which 95 percent stems from fossil fuel consumption. CADP will implement adaptation and resilience-building measures supporting the Government's Long-Term Strategy for the Development of Angola (2025). The agriculture sector could make a significant contribution to GHG reduction by adopting productivity enhancing, sustainable approaches which integrate crops and agroforestry efficiently, prevent runoff and limit soil loss, increase water use efficiency, and have the potential to increase the resilience of farming systems to climate

[16] World Bank: Agriculture Policy Note, Angola, 2017. Analyses showed that the yields of cereals, potato, and beans were generally higher for farmers who received such services.
[17] An Overview of Women's Work and Employment in Angola - Decisions for Life MDG3 Project, Country Report #2: University of Amsterdam/Amsterdam Institute for Advanced Labor Studies, and van Klaveren, Tijdens, Hughie-Williams and Martin, 2009.
[18] Angola: Country Gender Profile, African Development Bank/African Development Fund, August 2008.
[19] Climate change is expressed in protracted drought, flash floods, forest fires, reduced crop production and water resources and impacts on fishing resources, all of which are affecting the Angolan economy.

changes and variability.[20] This is aligned with the mitigation target of 50 percent relative emission reduction compared to business-as-usual in 2030.

13. **Information on available land is underdeveloped.** The current state of land information in Angola hinders the identification of potentially promising land for investment. Most rural lands are not formally registered or part of a database which, among other things, increases the potential for disputes. Furthermore, the incoherence of the legal framework with the socially accepted norms of land governance creates tenure insecurity that hinders the sector's development. Even so, investments in agriculture and agribusiness activities are being undertaken, with actors securing land tenure rights to ensure land utilization and security to safeguard investments and reduce/eliminate conflict. An assessment of land tenure in the project areas is being prepared with Project Preparation Advance (PPA) support. Based on this study, the CADP will support, as an initial step, the development of land use planning and governance mechanisms linked to the project investments.

14. **Sector institutions are generally weak, hindered by limited technical capacity, unclear mandates, and centralized decision making.** The responsibility for agricultural policy and program development falls under MINAGRIF, the Provincial Directories of Agriculture within the Provincial Governments, and the municipal *Estação de Desenvolvimento Agrário*. The project will complement the World Bank-financed SADCP to strengthen MINAGRIF's ability to develop policies and programs in support of a competitive agribusiness sector.[21] The project will also work with and reinforce the capacities of other public institutions which influence agricultural investment and intersect with the project.[22] Private sector perspectives in the definition of agriculture policies are hindered by the lack of an effective public-private dialogue, a constraint that the CADP will help address.

15. **Low and declining public spending in agriculture highlights the need for mobilizing private investment.** The share of agriculture in the national budget declined from 1.10 percent in 2013 (US$702 million) to 0.41 percent (US$544.0 million) in 2015. In the current fiscal environment, there is a need to improve the effectiveness and efficiency of public expenditures on critical infrastructure, strengthen regulations and institutional capacity, and improve research and development services to catalyze private investment in agriculture. The CADP is expected to contribute to advancing these goals.

C. Higher Level Objectives to which the Project Contributes

16. **The proposed project is expected to make a strong contribution to the Government's economic diversification agenda** by supporting the transition from subsistence to more market-oriented, competitive agriculture while improving food security and reducing food imports. This approach is outlined in the Government's program, which will form the basis of the National Development Plan (NDP) 2018–2022 that is currently under development. A more diversified economy is critical to reducing the country's vulnerability to oil sector shocks and to creating job opportunities

[20] Angola Nationally Determined Contribution Content Brief, Climate Policy Team, World Bank. 2016.
[21] World Bank MOSAP I, closed March 2016 and SADCP (effective December 2017).
[22] Ministry of Economy and Planning (manages the *Angola Investe* program providing subsidized credit to productive investments), Angola Development Bank, Ministry of Commerce and Industry (manages investment promotion through Angolan Agency to Promote Investment and Exports and the Program for the Acquisition of Agro-livestock Products, [PAPAGRO]), Ministry of Construction (Roads), Ministry of Transport, and Ministry of Energy and Water (MINEA).

and income generation in agri-food systems that help reduce extreme poverty and malnutrition. The Government's program highlights agricultural development as essential to its objective of promoting sustainable growth and diversification with social and economic inclusion. It emphasizes the role of the private sector in developing productive value chains, an objective to which this project will contribute.

17. **The project is closely aligned with national and regional priorities for agricultural development.** By supporting the development of commercial agriculture, the project aligns with Angola's updated Medium-Term Agriculture Sector Development Plan (PDMPSA) (2018–2022) which seeks to improve food security, reduce the trade deficit in agro-livestock products, and contribute to economic and social development. Accordingly, the project provides technical support and access to capital to private actors along key agriculture value chains, investments in critical infrastructure, and a better enabling environment. The project will also help strengthen MINAGRIF's capacity to boost private investment in food systems, contributing to the PDMPSA's pillar to make MINAGRIF a more relevant and competent institution.

18. **Supporting economic diversification is a key pillar of the World Bank's Country Partnership Strategy (CPS) FY14–16, extended to FY19.**[23] The revitalization of the rural economy and development of the agriculture sector through productivity increases and market links are important sources of growth, employment creation, and poverty reduction. Greater dynamism in the rural economy is expected to have far-reaching effects on achieving shared prosperity. The Performance and Learning Review (PLR) extended the CPS and reformulated its objectives to respond to the macroeconomic challenges emerging from the decline in oil prices, with economic diversification remaining a key objective.

19. **This project will build synergies with, and draw on the experiences of other World Bank Group projects.** These include the SACDP (P154447), the Agricultural Productivity Program for Southern Africa (APPSA) (P094183), the Angola Statistics Project (P157671), and the Angola Local Development Project (P160105). Other World Bank operations approved recently by the Board or under preparation can also provide important guidance on viable approaches to key activities contemplated by this project,[24] as does a 2016 comprehensive study on the experience of the World Bank's productive alliance investments in Latin America.[25] Further, close coordination between the International Finance Corporation (IFC) and the World Bank can play an important role in mobilizing investment and sector financing, where each institution will contribute based on its respective mandate.

[23] Performance and Learning Review of the Country Partnership Strategy for the Republic of Angola for the Period FY14–FY16. Report No. 125072 - AO.

[24] Including Mali Support to Agro-industrial Competitiveness Project (P151449), Cameroon Agriculture Investment and Market Development Project (P143417), Zambia Agriculture and Trade Project (P156492), and Congo Commercial Agriculture Project (P159979).

[25] World Bank. 2016. *Linking Farmers to Markets through Productive Alliances: An Assessment of World Bank Experience in Latin America*.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

20. The proposed Project Development Objective (PDO) is to increase productivity and market access for selected beneficiaries in the project areas.

21. The selected beneficiaries are value chain actors comprising eligible farmers and agribusiness SMEs benefiting from direct support (technical assistance (TA), Matching Grants, and Partial Credit Guarantee (PCGs)) and infrastructure investments supported by the project.

B. Project Beneficiaries

22. **Direct beneficiaries.** The project's direct beneficiaries include: (a) individual and organized farmers (cooperatives, associations) in the project areas; (b) SMEs in the agribusiness sector; (c) rural women and youth within the typologies in (a) and (b); and (d) MINAGRIF as well as financial and credit guarantor institutions for activities linked directly to Matching Grants and PCGs, to benefit from technical assistance.

23. In addition, the project will indirectly benefit: (a) rural populations in the project areas living close to rehabilitated rural roads; (b) other firms upstream or downstream of agribusiness value chains benefiting from improvements in agriculture policies and regulations supported by the project; and (c) business associations and academic and research institutions.

C. PDO-Level Results Indicators

24. The proposed PDO-level indicators include:

(a) Aggregate increase in yields per standard unit of selected crop and non-crops by participating farmers (percent);

(b) Increase in average gross sales by crop/non-crop activities of beneficiary farmers and SMEs (percent); and

(c) Farmers reached with agricultural assets or services (number), of which female (number).

III. PROJECT DESCRIPTION

25. **Geographic coverage.** The project follows a spatial approach to removing existing bottlenecks to the development of commercial agriculture (including technical knowledge, finance, and critical infrastructure) along two 'roads corridors'. These corridors link—through the road network—the central highlands, traditional agricultural areas and those most affected by the conflict, with the large urban market of Luanda. The two corridors comprise the following provinces: (A) Luanda-Bengo-Cuanza Norte-Malanje; and (B) Luanda-Bengo-Cuanza Sul-Huambo-Bié-and the North of Huila province. These corridors represent highly productive areas with favorable agro-climatic conditions to produce maize,

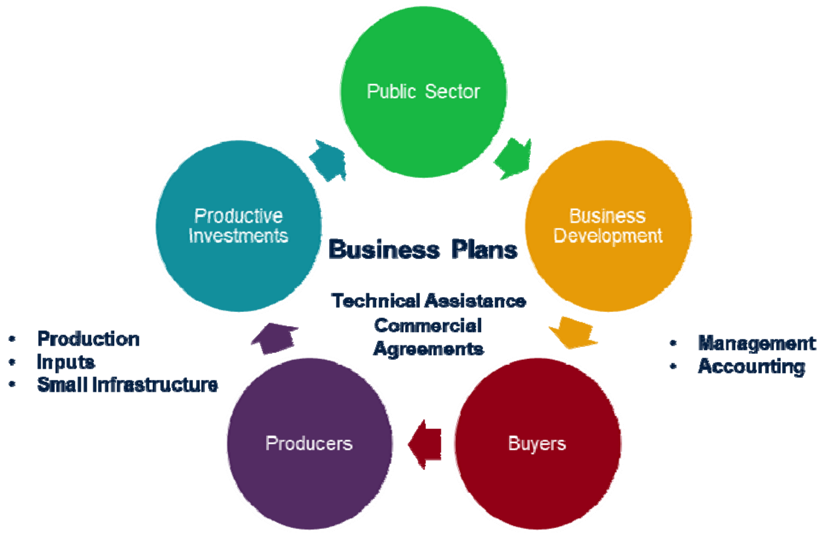
soybeans, beans, and coffee (in addition to other crops such as vegetables, groundnuts, and fruits). Annex 6 presents maps for the area.

26. **Gradual implementation.** Within the two corridors, project activities will initially focus on 12 municipalities in three provinces: Cuanza Norte, Malanje, and Cuanza Sul. In Cuanza Norte and Malanje Provinces (Corridor A) project implementation will be launched first in the municipalities of Cazengo, Lucala, Camambe, Gulungo Alto, Cacuso, and Malanje; and in Cuanza Sul Province (Corridor B), in the municipalities of Quibala, Libolo, Cela, Mussende, Quilenda, and Amboim. The initial focus on 12 municipalities seeks to concentrate project investments and test implementation arrangements and is consistent with the following criteria for the selection of the project's geographic coverage: (a) concentration of organized producers and small, and medium agribusiness firms relative to other areas so as to promote collaboration, knowledge spillovers among producers, development of specialized labor and, in some cases, centralized input purchasing; (b) aggregation/proximity of these municipalities; (c) existence of infrastructure in production and surrounding areas (within 50 km) based on the PPA-financed infrastructure mapping exercise; (d) access to consumer centers and transport hubs. The appendix to Annex 1 summarizes key characteristics of these three provinces.

27. **The CADP design draws from previous and current experiences of the World Bank-supported operations in Africa and other regions. It will promote the 'productive alliances' approach[26] to value chain development.** A productive alliance will identify market opportunities mutually beneficial to its constituents in priority value chains, detailed in the form of a business plan, which will also include a financial feasibility assessment (figure 1). Productive alliances can foster value-added processing, compliance with sanitary standards, and certification and enable a scale response to verified market demand. As the first of its type in Angola, the CADP seeks to establish: (a) improved access to the capital needed to boost farm and SME asset accumulation—physical, financial, human, and/or social (through technical assistance, Matching Grants, and PCGs); (b) improved access to productive infrastructure—rural roads, irrigation, last-mile electricity connections, post-harvest management, and input/output markets; (c) technological innovation—product, process, and organization—reducing down-side risks affecting productivity, including production losses; and (d) strengthened sector institutions, market intelligence services, and an improved business environment with enhanced public-private dialogue to enable agribusiness development.

[26] Productive alliances are competitiveness clusters consisting of (a) farmers and SMEs; (b) off-takers, (c) technical service provider (TSPs), both public and private; (d) financial and academic institutions; and (e) nongovernmental organizations (NGOs), all located in the borrower's territory in 'win-win' arrangements, in the context of the project strategies for value chains.

Figure 1. Core Elements of a Productive Alliance



28. **Priority value chains.** Initially, the project will support a set of value chains—maize, coffee, soybeans, beans, and eggs/poultry[27]—according to the Government's priorities—while developing value chain studies in the selected corridors and leaving open the possibility of expanding to other value chains following those studies. This is consistent with the CADP's role as a foundational commercial agriculture project aligned with the Government's economic diversification and food security objectives. Developing these value chains would contribute to reducing import dependency in basic food products—Angola currently produces 50 percent of the cereals and 55 percent of the beans it needs to meet its consumption needs, and just 10 percent of the chicken meat consumed—and, in the case of coffee, increase export revenues. Angola offers the agro-climatic conditions for the production of these commodities and, especially for coffee, a long history and experience (at its peak, the coffee area under production exceeded 550,000 ha, now around just 50,000 ha).[28] Furthermore, a large critical mass of farmers and entrepreneurs are already working on those value chains—approximately 9,000 families in soybean production, 430,000 families in beans, and 25,000 families in coffee production at the national level.[29] There are also support institutions (national and international) involved in their development, basic infrastructure investments, and private interest in investing in those value chains.[30] Detailed PPA-supported value chain studies are being conducted in the selected corridors, which will underpin project-supported value chain development activities, as well as the Government's broader policy and planning.

[27] Production of soybeans and chicken meat is small to have reliable values to calculate targets for productivity increases. Soybeans and chicken meat are expected to represent a small percent of business plans supported. However, these are value chains that the Government has prioritized them. It was agreed that productivity measures will focus on maize, coffee, and eggs. Other value chains will be tracked through the indicators on increased sales and farmers reached. Therefore, the project MIS will track specific results for the different value chains (including chickens and soybeans).
[28] CodespaPro, Fundación Codespa, and Incatema Consulting (2015). *Non-oil sectors Value-chain analysis in Angola - RFP/UNDP/AGO/SPE and 00087942/2014*. Document prepared for the United Nations Development Program.
[29] Ibid.
[30] For example, a 1,000 ha investment in Arabica coffee in Kwanza-Sul, as well as several medium- and large-scale investments in maize production in Malanje.

A. Project Components

29. The project has four interlinked components to be implemented simultaneously, following the logical sequence of activities for each component. Component 1 seeks to catalyze agriculture and agribusiness potential by supporting eligible farmers and agribusiness SMEs in the project areas. Support to eligible farmers will follow a productive alliance approach through which these producers target new markets and seek to establish commercial relationships with off-takers. Support to agribusiness SMEs will focus on helping the firms connect with specific off-takers and markets (both domestic and export), through strengthening business practices, supply chain development, and ability to meet market requirements. Component 2 will support public investments in agricultural service roads and other infrastructure (irrigation and 'last-mile infrastructure') selected based on the location (clustering) of the demand for subprojects from farmers and agribusiness SMEs in Component 1. Component 3 will contribute to creating a more enabling environment for sustainable agribusiness development by addressing constraints to value chain development identified through public-private dialogue, supporting new technologies in priority value chains in Angola, and strengthening MINAGRIF's institutional capacity. Component 4 focuses on project management and monitoring and evaluation (M&E). Two basic principles will guide project investments design: (a) a demand-driven approach based on business opportunities along the value chain; and (b) the geographical concentration and targeting of project interventions where commercial opportunities exist and the need for support has been identified by market actors.

30. The project will seek to crowd in the private sector across all components. The project is 'Maximizing Finance for Development-enabling' for the following reasons: (a) Component 1 addresses (i) the limited financing of agriculture by commercial banks by de-risking agriculture projects with PCGs and (ii) underinvestment in agriculture technologies and business practices due to coordination failures in input and product markets; (b) component 2 addresses constraints to access to infrastructure by investing in irrigation, rural roads, and 'last-mile' electricity connections linked to private sector needs; (c) component 3 addresses regulatory constraints and weaknesses in public support to enable agribusiness, including public research and development. These constraints have been identified as prerequisites to spur sectoral transformation through private sector solutions in the agriculture sector in existing studies and private sector consultations during project preparation.[31] The project will help facilitate the Government's plan to develop a competitive agribusiness sector as identified in the PDMPSA 2018–2023.

Component 1: Promotion and Support for Agribusiness Development (EUR 64 million [US$ 78.9 million, of which EUR 53 million [US$ 65.3 million] IBRD and EUR 11 million [US$ 13.6] from the French Development Agency [AFD])

31. This component will support eligible farmers and agribusiness SMEs—including those led by/made up of women and youth—to adopt better technologies, improve their skills, access financial

[31] This activity includes developing a methodology for identifying promising value chains, grounded in evidence of economic impact and competitiveness. Pending detailed analytical results from these studies, two recent assessments conducted during preparation provide a window onto the types of challenges faced by the priority value chains in selected provinces and municipalities. See annex 1, appendix 1.

markets, and process and commercialize their products. The proposed subcomponents are detailed in the following paragraphs.

Subcomponent 1.1: Strengthening Skills, Productivity, and Commercialization (EUR 44 million [US$ 54.2 million], of which EUR 33 million [US$ 40.7 million] IBRD and EUR 11 million [US$ 13.6] AFD)

32. **Objective and scope.** This subcomponent will finance technical assistance to promote the project; conduct market studies; define beneficiary needs; and identify, prepare, and implement market-driven business plans with economic, financial, technical, and commercial viability within priority value chains. Business plans will be financed through Matching Grants, accessible to eligible farmers[32] and agribusiness SMEs on a competitive basis.

33. The subcomponent will support two types of beneficiaries: (a) eligible farmers using a productive alliances model; and (b) agribusiness SMEs, upstream and downstream in the value chain, using a market linkages model. The project will support the strengthening of producer organizations for the successful adoption of productive alliances. It will also support agribusinesses in building linkages across the value chain and strengthening their skills and expertise in aggregation, agro-processing, and order fulfilment. The project will draw on the experience of agricultural innovation centers, such as those supported by InfoDev,[33] for guidance on structuring such technical assistance to develop agribusiness SME linkages.

34. At least two internationally recruited and specialized Technical Service Provider (TSP) firms will be hired to help identify and evaluate viable subprojects, prepare business plans, provide technical oversight of their implementation, support applicants for bank loans, and provide technical and business management support. Specific activities include: (a) developing a communication strategy/plan to promote transparent access to information about project objectives and activities; (b) training and certification of local service providers in business plan development and implementation; (c) brokering of links between off-takers/buyers and eligible farmers/agribusiness SMEs; (d) strengthening of farmer organization and managerial capacity; (e) improvement to the business practices of agribusiness SMEs; and (f) help to farmer organizations and agribusiness SMEs to obtain essential registrations and approvals to meet project eligibility criteria.

35. Gender-specific training for women will focus on strengthening the capacity of farmer organizations and ensuring balanced access to project benefits. Furthermore, in the scoring of business plans, additional points and/or additional support will be awarded to business plans incorporating women in leadership positions and youth. In addition, female-owned and managed enterprises will have access to a dedicated technical assistance package that includes technology, business skills development, leadership coaching and networking for business management. The project will favor the participation of youth in several types of activities for example, training, technical assistance, and research and development, among others.

[32] Eligible farmers are individual or organized producers, members of associations, cooperatives, and SMEs.
[33] InfoDev is a global program sponsored and managed by the World Bank to promote innovative projects on the use of information and communication technologies.

36. **Matching Grants.** The Matching Grants will be accessible to eligible farmers and agribusiness SMEs competitively to finance approved business plans in the priority value chains. The goal is to help unlock agribusiness potential through a demand-based approach for overcoming market failures in accessing financial resources for productive investments (e.g. inputs, agricultural technologies, services, production processing, and post-harvest equipment and facilities). Technical assistance will systematically accompany equipment requests to ensure the proper use and maintenance of the investment. The grants are intended to promote investments that forge commercial partnerships between eligible farmers and agribusiness SMEs and other value chain players. Eligibility criteria for presenting a business plan include, among others, having: (a) a legal status (as a farmer organization or SME); (b) acceptable formal land tenure/security arrangements (if land is involved in the business proposal); (c) track record; and (d) less than 500 ha (in case land is involved).[34] The Matching Grant recipients will need to contribute a minimum of 10 percent of their own resources, and the grant portion decreases with project size. See details in Annex 1.

Subcomponent 1.2: Partial Credit Guarantees (EUR 20 million [US$ 24.6 million], IBRD)

37. **Objective and scope.** This subcomponent will finance PCGs, to be issued by the existing Credit Guarantee Fund (*Fundo de Garantia de Crédito,* FGC) through a project-specific window. The PCGs are intended to promote access to finance for the project's eligible beneficiaries by reducing the financial institutions' risk exposure, thereby increasing their incentive to finance agricultural activities. The project PCG fund will use the existing structure of the FGC, established in 2012 under the Ministry of Finance (MINFIN) and supervised by the Central Bank, with a track record in providing guarantees for SME loans.[35] This subcomponent will facilitate access to credit by eligible farmers and agribusiness SMEs by providing a guarantee to a commercial bank loan. The loan could cover the contribution not covered by the Matching Grants or the beneficiary's own resources. The PCG window would also be open to eligible project beneficiaries who have not applied for a Matching Grants, up to a certain amount, to be detailed in the PCG Operations Manual. The manual will describe the eligibility criteria for beneficiaries of guarantees (in size of operations, landholdings, revenue, and so on) and the types of activities supported by loans eligible for guarantees. The PCG would charge a fee to cover the cost of risk (defaults) plus administrative costs. Guarantees will be partial, covering 65 percent of the loan, *pari passu*.

38. **Eligible banks.** PCGs will be open to qualified banks, based on transparent and market-driven criteria, specified in the PCG Operations Manual, to ensure good performance.[36] Technical assistance

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[34] The core scoring and selection criteria will be detailed in a Matching Grants Operations Manual and will be based on technical, financial, and economic soundness; demonstrated access to markets; gender and youth considerations; socio-environmental safeguards; and sustainability.
[35] The FGC had issued over 400 guarantees as of September 2017, for a total amount of almost US$307 million and made payouts on four guarantees.
[36] Such criteria would include adequate capitalization, appropriate governance, solid risk management systems, low levels of NPLs, existing experiences in financing agriculture and using the guarantees of the FGC, among others. Any bank that meets such criteria should be able to access the guarantees. It is expected that initially, 4–5 banks would qualify (based on their interest and meeting the criteria) but enrollment would be open to other qualified banks.

will be provided to participating banks to help them fully understand the PCG objectives and processing cycle, as well as to the FGC to support its management of this activity.[37]

39. **PCG financing.** With the existing FGC leverage ratio of 2.5, the project will provide the capitalization of about EUR 20 million that would be necessary to back guarantees in the amount of EUR 50 million. With a guarantee coverage of 65 percent, this amount would cover about EUR 77 million in loans to eligible farmers and agribusiness SMEs. Sixty-five percent is the average currently provided by the FGC and in line with global averages, based on the World Bank's review of international experience with PCGs. Pricing will be market based and will cover the expected losses plus administrative costs.[38] The latter will be covered by the project for the first two years, until the scheme accumulates enough loans and fees to cover expenses. These costs could be deducted from the capital of the FGC.

Component 2: Infrastructure for Production and Marketing (EUR 76.5 million [US$ 94.3 million], of which EUR 36 million [US$ 44.4 million] IBRD and EUR 40 million [US$49.3] AFD)

40. This component will finance critical enabling infrastructure for the development of commercial agriculture in the project areas, including: (a) rehabilitation of rural roads: (b) small-scale public irrigation infrastructure: and (c) 'last-mile' connection to the electricity grid and conversion to three-phase. The location of these investments aims to facilitate investments supported under Component 1.

Subcomponent 2.1: Rehabilitation of Rural Roads (EUR 36 million [US$ 44.4 million], of which EUR 12 million [US$ 14.8 million] IBRD and EUR 24 million [US$29.6 million] AFD)

41. **Objective and scope.** The project will improve producers' market access in the selected project areas by facilitating access between the main roads and the location of their activities. Farmers will thus have easier access to inputs, equipment, technical advice, and processing and commercialization centers. The project will finance: (a) rehabilitation and improvement of existing priority tertiary rural roads (within 50 km of main roads) in the areas of influence of the two project corridors, using appropriate technologies to increase their overall sustainability and climatic resilience; the priority would be to address critical points such as those affecting transit during the rainy season and to minimize future climate-related damages; (b) technical assistance to develop a strategy for rural road asset management and to assess and strengthen the existing capacity of provincial and municipal governments to maintain rural road infrastructure; and (c) routine maintenance of roads rehabilitated by the project.

42. **Prioritization criteria.** The main criteria for the selection of road portions are the following: (a) they connect beneficiary producers to markets; (b) the works demonstrate technical, socio-environmental, and economic-financial viability; and (c) there is commitment of provincial and/or

[37] The World Bank Group Principles on Designing PCG Schemes (2014) can be accessed at http://documents.worldbank.org/curated/en/2015/12/25665897/task-force-design-implementation-evaluation-public-credit-garantee-schemes-small-medium-enterprises-principles-public-credit-guarantee-schemes-smes.
[38] Usual/typical price range (from global experience) ranges from 1.5 to 2.5 percent per year on the outstanding loan principal balance.

municipal governments to their maintenance. Selection of the road portions will be finalized based on discussions with MINAGRIF.[39]

Subcomponent 2.2: Support to Public Irrigation Projects (EUR 24 million [US$ 29.6 million], of which EUR 8 million [US$ 9.9 million] IBRD and EUR 16 million [US$ 19.7 million] AFD)

43. **Objective and scope.** This subcomponent will support increased agricultural productivity and climate resilience of farmers by improving their access to irrigation. The goal is to develop/rehabilitate about 2,500 ha of irrigated land within the project area and support the pilot management of two irrigation schemes developed with public resources. On-farm irrigation will be supported as part of the business plans developed under Component 1. The development of irrigation schemes will start with identification and feasibility studies and will include the design of the schemes. MINAGRIF's National Irrigation Development Plan (*Plano Irriga*) will be the basis for identifying activities under this subcomponent which will finance: (a) the upgrading of the area around the water intake and main canals; (b) the construction of water collection structures; (c) the installation of control structures; and (d) the upgrading of the main canals.

44. **Support services**. The subcomponent will finance technical assistance by service providers to assist in the establishment and/or strengthening of the capacity of irrigator-producers, water user associations and unions, and their members. These include support on: (a) technical and economic aspects related to production, agricultural advice, and action research for agroecological intensification; (b) organizational and infrastructure management aspects: governance and functioning of irrigators' associations, development and implementation of a maintenance policy, royalty management; and (c) accounting and legal aspects: drawing up of statutes, certification of accounts, and relations with financial institutions for access to credit.

45. **Prioritization criteria.** The initial identification of potential irrigation sites will be led by a technical team in coordination with MINAGRIF's Department of Rural Engineering. Development will be based on a clearly articulated investment proposal and beneficiaries' commitment to contribute to recovery of the operation and maintenance (O&M) costs. The schemes will be assessed by a technical team before investment is considered to ensure social, environment, economic, and financial feasibility of the investments. Beneficiaries will have to secure the land rights before investment takes place. The project is also expected to pilot improved management in two existing schemes by establishing water user associations for their management. The schemes will be selected based on criteria agreed with the Government; technical, economic, and social and environmental considerations, and overall feasibility and availability of users.

Subcomponent 2.3: Last-mile Rural Electricity Connections (EUR 16.5 million [US$ 20.3 million] IBRD)

46. **Objective and scope.** The project will support the 'last-mile' connection of project beneficiaries in the selected areas to the main/national electricity transmission grid. Access to electricity will address

[39] Those selected will not be part of the basic road network as defined by INEA (Angola's National Institute of Roads). A PPA-supported, geo-referenced mapping of existing rural roads in the target municipalities is being finalized.

a key constraint to investments in processing, irrigation, and livestock by the eligible farmers and agribusiness SMEs, which would benefit from Component 1. These investments are currently not viable due to the high cost of operating generators. MINAGRIF will work closely with the Ministry of Energy and Water's (MINEA's) National Directorate for Rural Electrification to implement this subcomponent, and this collaboration will be formalized in a Memorandum of Understanding, to be approved by the World Bank as a disbursement condition for investments under this subcomponent. The public electricity distribution company (*Empresa Nacional de Distribuição de Electricidade*, ENDE) will be responsible for the O&M of infrastructure built by the project.

47. **Prioritization criteria.** A PPA-financed mapping exercise is assessing the status of the electricity distribution network in the initial 12 municipalities.[40] Planned grid extensions in the project areas are expected over the project implementation period, based on the NDP for the Energy Sector 2018–2022. The location of the 'last-mile' electricity connections will be defined based on the results of the analysis and the clustering of electricity connection needs based on the business plans supported by the project. Detailed criteria, to be spelled out in the Project Operational Manual (POM), will outline the methodology to define the connections to be financed, the conditions for which include maximum length of the connection, maximum cost, cost-sharing by beneficiaries, and a strong public good dimension.

Component 3: Institutional Strengthening and Improved Business Environment (EUR 32 million [US$ 39.4 million], of which EUR 10 million [US$ 12.3 million] IBRD and EUR 22 million [US$ 27.1 million] AFD)

48. This component intends to improve the business environment and institutional capacity to support private sector competitiveness in selected value chains. The project subcomponents are summarized below.

Subcomponent 3.1: Value Chain Strategy Development (EUR 12 million [US$ 14.8 million], of which EUR 3 million [US$ 3.7 million] IBRD and EUR 9 million [US$ 11.1 million] AFD)

49. **Objective and scope.** This subcomponent will finance the preparation of development strategies for priority value chains, using a public-private dialogue mechanism (at national and local levels) which includes private sector actors in each value chain. A TSP will facilitate the dialogue and conduct market studies and other analysis supporting an action plan to address the constraints in private participation in value chains. By promoting private sector engagement in identifying essential actions to reduce constraints, the project seeks to improve trust between the Government and the private sector and ensure better targeted policies for commercial agriculture. The action plan is expected to focus on: (a) technical assistance to improve regulations, including reducing regulatory barriers to entry and competition; (b) improving food safety regulations and strengthening product quality by improving standards and piloting certification; (c) development of processing, marketing, and investment promotion strategies; (d) development of information and risk-management systems for the value chain; and (e) facilitating of value chain finance through studies and workshops. The subcomponent will

[40] Government's program includes ambitious plans to increase electricity generation; expand the central distribution network connecting the North, Central, and South systems; invest in renewable energy; and develop mini-grids for remote areas.

also finance studies of other potential value chains beyond the five prioritized, based on government priorities and private sector feedback. Support to regulatory reform under this subcomponent will leverage the World Bank Group's support to improve the investment climate, including the Angola Business Environment Reform (P163713) and the Financial Sector RAS (P147800), and analytical studies such as the Enabling the Business of Agriculture, which is expected to include Angola in the next edition.

Subcomponent 3.2: Research and Development (estimated total cost EUR 12 million [US$ 14.8 million], of which EUR 3 million [US$ 3.7 million] IBRD and EUR 9 million [US$ 11.1 million] AFD)

50. **Objective and scope.** This subcomponent seeks to strengthen the national research system, specifically the Agriculture Research Institute (IIA), National Coffee Institute of Angola, and the Angolan Institute of Veterinary Research to expand access to productivity-enhancing technologies, including climate change adaptation and mitigation, for farmers' organizations and poultry chain producers. Complementarity between the activities of the CADP, and SADCP and the proposed APPSA project will be promoted.[41] The CADP will prioritize research in the coffee and chicken value chains. This subcomponent will complement Subcomponent 3.1 in areas where specific knowledge is needed to implement strategic value chain action plans. The financed activities will include: (a) production of improved plant varieties in nurseries; (b) development of recommended technological packages for coffee growing and commercial breeding of chickens; (c) improvement of soil analysis services and use of recommended fertilizers; and (d) training of national researchers and extension officers and establishment of demonstrations centers when appropriate. The project will also support cooperative partnerships—competitively accessed—with foreign universities, the CGIAR, and research institutes. The Project Implementation Unit (PIU) will prepare an implementation plan in collaboration with national research entities, in the first year.

Subcomponent 3.3: Institutional Capacity Strengthening (EUR 8 million [US$ 9.9 million], of which EUR 4 million [US$ 4.9 million] IBRD and EUR 4 million [US$ 4.9 million] AFD)

51. **Objectives and scope.** This subcomponent will finance technical assistance and equipment to strengthen MINAGRIF's capacity in areas linked to project objectives. Activities in partnership with other government agencies may be included. The identified activities include: (a) development of a business intelligence system managed by the Studies, Planning, and Statistics Unit (*Gabinete de Estudos, Planeamento e Estatísica*, GEPE) to process information and data for the agricultural sector and improve policy making and planning; (b) development of land policy and governance mechanisms in the project area linked to project investments; (c) weather index-based crop insurance development studies, for enabling improved climate change and climate variability risk coverage, such as against floods and droughts; and (d) strengthening of the newly created National Irrigation Development Institute (*Instituto Nacional de Hidráulica Agricola,* INHIA) to implement an updated *Plano Irriga* (e.g. irrigation development strategy and planning, public asset management, supervision of studies and construction, and land use planning in irrigated areas). Relevant agriculture policy studies to strengthen MINAGRIF's

[41] This subcomponent will leverage the regional Agricultural Productivity Program for Southern Africa - Angola and Lesotho (P164486), which supports agricultural research, technology dissemination, and capacity-building activities associated within a regional collaborative framework around priority farming systems/commodities and value chains, where Angola will take the lead on cassava. It will also leverage other initiatives to strengthen agricultural research and development under the SADCP and other projects.

ability to support a competitive agribusiness sector, as well as training and knowledge exchanges for MINAGRIF officials and other relevant entities, are also considered here.[42]

Component 4: Project Management, Monitoring, and Evaluation (EUR 12 million [US$ 14.8 million], of which EUR 6 million [US$ 7.4 million] IBRD and EUR 6 million [US$ 7.4 million] AFD)

52. **Objectives and scope.** This component will finance: (a) PIU operational costs and multisector coordination—technical, fiduciary (procurement and financial management [FM]), and social and environmental safeguards—at the central and decentralized levels; (b) institutional and technical capacity building for project implementation at all levels; (c) M&E and information systems; (d) project website design, implementation, and maintenance; (e) baseline, midterm, and final project evaluations, including impact; (f) communications strategy and information dissemination; (g) diverse knowledge exchanges; and (h) project results dissemination. Strong M&E systems for project implementation will be a top priority as will be strengthening the PIU's capacity to plan and execute them.

B. Project Cost and Financing

53. **The project is designed as an Investment Policy Financing (IPF) to be implemented over six years starting in 2018 (see table 1).** The total project cost is EUR 184.5 million (US$230 million equivalent) financed by an IBRD loan of EUR 105.5 million (equivalent to US$130 million) and an AFD credit of EUR 79 million (equivalent to US$100 million). Selection of the IPF was based on its flexibility and suitability to incorporate financing for a broad range of activities, including a number of specific investments, technical assistance, and capacity enhancement measures. The World Bank and AFD will provide funds as joint co-financing on a *pari passu* basis, as shown in table 1. The AFD co-financing will be subject to World Bank policies and procedures including procurement, FM, and safeguards. The World Bank and AFD will sign a project-specific co-financing agreement, based on the framework agreement, in which the parties will agree that the World Bank procurement framework will apply for the execution of the project, on the terms established in such agreement(s). Bidding documents will be amended to reflect the role of the AFD as co-financier. While the AFD's priority is family agriculture, the project's transitional nature bridging the World Bank-financed MOSAP I 'graduates' to the next level of organized commercial activity is also of specific interest.

[42] Preparation of an agriculture policy review; training and knowledge exchanges for MINAGRIF officials and other stakeholders to build capacity for market-oriented agriculture policies and programs; and technical assistance to enhance competition dynamics in agricultural inputs and product markets, review of food safety regulations, and the institutional framework.

Table 1. Project Cost and Financing (millions)

Project Components	Project Cost EUR	Project Cost US$	IBRD Financing EUR	IBRD Financing US$	%	AFD EUR	AFD US$	%
1. Promotion and Support for Agribusiness Development	**64.00**	**78.86**	**53.00**	**65.31**	**82.81**	**11.00**	**13.55**	**17.19**
1.1. Strengthening Skills, Productivity, and Commercialization	44.00	54.22	33.00	40.66	75.00	11.00	13,55	25.00
1.2 Partial Credit Guarantees	20.00	24.64	20.00	24.64	100.00	0.00	-	0.00
2. Infrastructure for Production and Marketing	**76.50**	**94.27**	**36.00**	**44.36**	**47.37**	**40.00**	**49.29**	**52.63**
2.1 Rehabilitation of Rural Roads	36.00	44.36	12.00	14.79	33.33	24.00	29.57	66.67
2.2 Support to Public Irrigation Projects	24.00	29.57	8.00	9.86	33.33	16.00	19.72	66.67
2.3 Last-mile Rural Electricity Connections	16.50	20.33	16.50	20.33	100.00	0.00	-	0.00
3. Institutional Strengthening and Improved Business Environment	**32.00**	**39.43**	**10.00**	**12.32**	**31.00**	**22.00**	**27.11**	**69.00**
3.1 Value Chain Strategy Development	12.00	14.79	3.00	3.70	25.00	9.00	11.09	75.00
3.2 Research and Development	12.00	14.79	3.00	3.70	25.00	9.00	11.09	75.00
3.3 Institutional Capacity Strengthening	8.00	9.86	4.00	4.93	50.00	4.00	4.93	50.00
4. Project Management, Monitoring, and Evaluation	**12.00**	**14.79**	**6.00**	**7.39**	**50.00**	**6.00**	**7.39**	**50.00**
Total Costs	**184.50**	**227.35**	**105.50**	**130**	**56.57**	**79.00**	**97.3**	**43.43**
Total Project Costs			**105.50**					
Front-end Fees			0.264					
Total Financing Required			**105.236**					

54. **To ensure that the project achieves its PDO,** the World Bank is also seeking potential synergies and complementarities with other projects already being executed in Angola involving the European Union (EU), the African Development Bank (AfDB), and the Food and Agriculture Organization of the United Nations (FAO).

C. Lessons Learned and Reflected in the Project Design

55. **The project builds on the lessons identified in the independent evaluation of MOSAP, the first World Bank-supported agricultural development project in Angola**.[43] First, an internationally experienced TSP will help producer organizations develop and implement business plans, to avoid delays, provide continuity of expertise and institutional memory, and establish high technical standards. At least two TSPs will be recruited/contracted through an international competitive process. Second, procurement, FM, safeguards, and M&E teams will be involved from the early stages of project design. Due to the lack of local, qualified professionals familiar with World Bank procedures, extensive and continuous training is needed for locally recruited staff. With support from the PPA, key fiduciary staff are being recruited. Extensive training is envisaged under CADP, including support from specialists trained under MOSAP which is currently supporting the SADCP. Third, intensive effort is required to ensure that women gain access to producer organizations and influence project investment decisions. Gender-specific training will be provided to ensure balanced access to project benefits. Fourth, support to preparing and implementing demand-driven subprojects under MOSAP was generally successful, with over 70 percent of the subprojects being judged sustainable by the independent evaluation. The CADP is adopting a demand-driven approach for Component 1 investments, which will be selected based on the business plan viability. Finally, building the Government's capacity accelerates project implementation and increases the ownership of results. The CADP will finance institutional development and capacity building through Components 3 and 4.

56. **Lessons were drawn from similar projects based on the productive alliance model.** The productive alliance approach can be a cost-effective way to boost productivity, expand production, improve competitiveness, and link producers to markets. The main lessons expounded in the World Bank's 2016 study and applied in CADP are summarized below.[44]

57. **Beneficiary targeting and selection.** Experience shows that geographic focus and value chains need to be prioritized during project preparation based on a realistic assessment of local/regional comparative advantage. A strategic value chain analysis is being prepared in the CADP's priority geographic areas to determine comparative advantage in certain products, competitive advantages which could be developed, and the challenges/market failures faced by producers. Beneficiary targeting and selection must consider producers' existing endowments and assess their ability to comply with market requirements. A beneficiary mapping analysis defines targeted producers' productive status and endowments. Minimum criteria would include a bank account, basic accounting capacity, registrations, guarantees, buyer contracts, and/or relevant sector training.[45] A separate diagnostic examines the status of supporting infrastructure in the project areas.[46]

[43] de Carvalho Melo, R. J., and C. Barbosa. 2015. *Projeto de Agricultura Familiar Orientada para o Mercado (MOSAP): Lições Aprendidas, Conclusões e Recomendações para Futuras Intervenções*. *Instituto de Desenvolvimento Agrário*.
[44] World Bank. 2016. *Linking Farmers to Markets through Productive Alliances: An Assessment of the World Bank Experience in Latin America*.
[45] FAO 2018: Rapid Assessment – Characterization of Potential Beneficiaries.
[46] Diagnostic of Supporting Infrastructure: Current Status in the Project Area, Incatema Consulting and Engineering, February 2018 (3rd Report).

58. **Competitive selection.** A competitive project selection process and clearly defined technical evaluation criteria are crucial for establishing credibility among stakeholders, maintaining arm's length transactions, and avoiding political intervention. Selection criteria are defined in the PAD and will be detailed in the Matching Grants and PCGs manuals, and would include, at minimum, economic, financial, social, and environmental viability. Capacity for ex ante evaluation of business proposals is weak in public institutions and the provision of productive support is prone to elite capture. The project will mitigate these risks through the TSP, which will independently assess each investment proposal before its final approval.

59. **Beneficiary contribution.** Requiring cash contributions and commercial bank loans as co-financing from producers ensures stronger buy-in, and thus sustainability. The CADP will require a minimum 10 percent contribution from beneficiaries' own resources with business plans qualifying for Matching Grants, while the rest can be sourced from commercial banks, with the option of a PCG for qualifying business plans.

60. **Provide support through implementation of business plans**. Project support should accompany beneficiary organizations (and buyers/off-takers) throughout the preparation and implementation periods of their investments.[47] The TSPs will accompany beneficiary farmers/entities throughout subproject preparation and implementation. Building beneficiaries' capacity for business management is key to their organizational consolidation and growth. The project will finance: (i) technical assistance, training, and awareness raising; (ii) support to prepare business initiatives, negotiate with business partners, and learn by doing; and (iii) continuous/customized technical assistance.

61. **Focus on markets and in crowding in financial sector**. Experience shows that successful productive alliances promote improved production systems that can deliver what markets demand. Market access for SMEs[48]depends on the identification of market opportunities and not on satisfying community/producers 'needs' and 'demands' which can be questionable commercially and financially. The CADP would require the market guidance and direct participation of potential buyers as a key eligibility criterion for financing productive investments.[49] Furthermore, financial institutions such as commercial banks and buyers should be involved from the beginning of the project. CADP consulted extensively with key financial institutions and buyers during preparation. It will continue to facilitate their links to producer groups and will work with both sectors on a strategy/plan to sustain and scale up activities when project funding ends.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

[47] Experience with Matching Grants, Coste and Hristova, 2016. Key recommendations are consistent with the proposed project.
[48] Campbell Collaboration Systematic Review (2016) analyzed the findings of 40 studies examining interventions targeted at SMEs (up to 250 employees). See results/conclusions in Annex 1.
[49] Campbell Collaboration Protocol for a Systematic Review (2014): The Impacts of Business Support Services for Small and Medium Enterprises on Firm Performance in Low-and Middle-Income Countries: A Systematic Review Gonzalez L. et al. 2014. The second group of studies addressed the impact of direct business support to SME.

62. MINAGRIF will represent the Government of Angola through a dedicated national PIU within its Office of GEPE and include the following supervisory and support to implementation bodies. Detailed project implementation arrangements and the agreed institutional organigram are detailed in Annex 2. An Implementation Support Plan (ISP) is outlined in Annex 3.

63. **MINAGRIF.** The project will be implemented by MINAGRIF—which is already implementing the SADCP—and supported by national and international consultants. MINAGRIF will coordinate the project in consultation with other ministries, to ensure that the project activities align with national policies and World Bank requirements.

64. **Project Steering Committee (PSC).** A high-level PSC will be responsible for the strategic direction, operational oversight of project activities, implementation progress, communication, and overall good governance of the project. It will: (i) provide political and strategic guidance and facilitate inter-sector coordination for project activities; (ii) propose the project action plan and budget for the PIU; and (iii) review annual project reports and support problem resolution. The final decision-making authority will rest with MINAGRIF.[50] It will be composed of representatives of key project stakeholders (relevant ministries, private sector, and civil society).

65. **Project Implementation Unit (PIU).** MINAGRIF will establish a PIU led by a project coordinator with a full complement of sector fiduciary and safeguards specialist[51] to: (i) coordinate project management, implementation and supervision, fiduciary and safeguards, environmental and social aspects, and M&E, according to World Bank norms and requirements; and (ii) manage the project based on the legal documents, the PAD, POM, Matching Grants Operations Manual, and PCG Operations Manual. The PIU will rely on specific expertise, including the hiring of independent specialists contracted for the management of the selection process of the Matching Grants and PCG of Component 1, as well as for investments under Component 2, as part of the TICs.

66. ***Fundo de Garantia de Crédito* (FGC).** The FGC will issue the credit guarantees under Subcomponent 1.2. A separate subsidiary agreement with the Government of Angola, represented by MINFIN, setting out the terms and conditions of the project funds assigned to the FGC will be required. A project agreement between the World Bank and the FGC will also be required since the FGC is a financial institution with a separate legal identity.

67. **Technical Investment Committees (TIC).** The PIU will establish TICs for Components 1 and 2, respectively. TICs will review/approve Matching Grants and the PCGs under Component 1 and, under Component 2, review/approve proposed infrastructure investments linked to the demand articulated in the business plans under Component 1. Business plans will be reviewed and approved by the TIC team composed of: (i) a value/chains/agribusiness specialist; (ii) environmental and social specialists; (iii) financial sector representatives; and (iv) three to four outside experts, selected on an ad hoc basis, depending on the value chains represented. Infrastructure investments will be reviewed by the TIC team

[50] Involved ministries with representatives on the PSC would include Construction, Industry, Transport, Energy and Water, Economy and Planning, Finance, Commerce and Environment, and Family and Women.
[51] If these specialist positions are filled by international consultants, each would have a local counterpart to develop local capacity, and conserve institutional memory and continuity after the international consultant has completed the work.

composed of: (i) roads, water/irrigation, and energy specialists related to each sector and (ii) environmental and social specialists.

68. **Focal points.** Project focal points designated by public sector entities (outside MINAGRIF) and with proven technical capacity in their sector (for example, roads, rural electrification) will facilitate inter-sector coordination and provide specialized knowledge and input to the PIU on project annual reports, TOR, and other aspects.

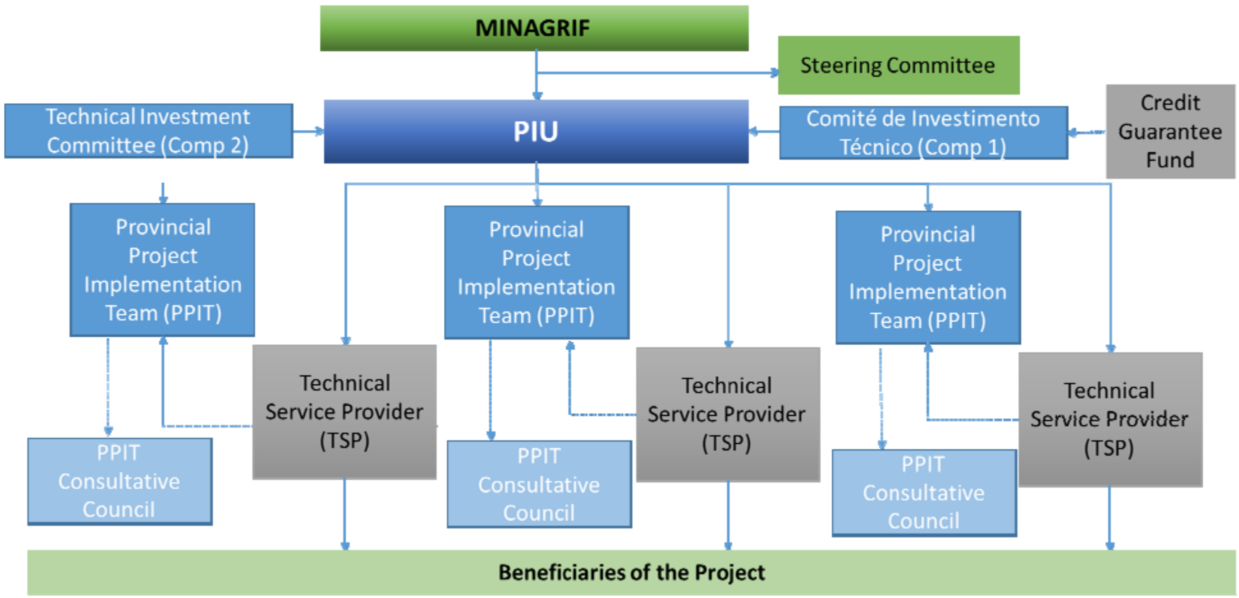
69. **Provincial Project Implementation Teams (PPIT).** PPITs—representing the PIU in the target provinces and reporting to the PIU—will supervise project implementation and ensure coordination with the provincial government and local stakeholders. PPITs will be hosted by the respective Provincial Directory of Agriculture (PDA) and will include a PIU representative and additional consultants hired as required during implementation. The PPITs will be responsible for: (i) keeping the PDA engaged on project implementation in the provinces, ensuring overall alignment with provincial government programs; (ii) overseeing the implementation of project activities in the provinces, providing information to the PIU; and (iii) helping convene the Provincial Consultative Council to engage local stakeholders during implementation. Provincial implementation agreements between MINAGRIF and the provincial governments will define the role and functions of the PPITs.

70. **Provincial Consultative Council.** These Councils (in each province), to be convened by the PPIT, would comprise farmer organizations, local business representatives, and members of local governments to advise/assist on the identification of potential project beneficiaries and investments in infrastructure.

71. **Technical Service Providers (TSPs).** The project would hire at least two internationally recruited and specialized TSPs firms, resident in Angola, with distinct TORs and specific experience in productive alliances and SME large firm links; with experience in value chain analysis and development; and with capacity to identify, train, and certify local service providers. The TSPs will help identify viable subprojects, prepare business plans and provide technical oversight of their implementation, support applicants for bank loans, and provide technical assistance and business management mentoring. A TSP would also provide technical support to commercial banks to evaluate agribusiness subprojects and the FGC to manage the guarantees. The PIU would receive capacity-building assistance, including from the TSP, to support project implementation technically, operationally, and administratively and, to strengthen the PIU's M&E capacity. See annex 2 for details.

72. **Beneficiary Farmers and Agribusiness SMEs.** They are primarily responsible for the implementation of subprojects, financed with Matching Grants and bank loans backed by PCGs, in the context of the business plans (Component 1). They will contribute to the identification of complementary rural infrastructure (Component 2) through the PPIT Consultative Councils.

Figure 2. Project Implementation Arrangements



73. **Other stakeholders.** These would include donors (FAO and potentially other development partners such as the African Development Bank and the European Union), NGOs, financial institutions, research institutions, academia, and private sector organizations, including associations of women entrepreneurs. They would participate in central - and provincial-level strategic discussions, support activities under Component 1 and Component 2, and in public-private dialogue platforms and research and development activities under Component 3.

B. Results Monitoring and Evaluation

74. **Monitoring.** The CADP will be underpinned by a monitoring, learning, and evaluation system designed to promote best practices in results-based project M&E and establish the foundation for an evidence-based decision-making process. Monitoring project implementation (activities, processes, inputs, and outputs) will track progress toward achievement of the PDO and Intermediate Results Indicators (targets versus actual achievement) using an integrated M&E system and management information system (MIS). These systems will monitor project performance against a baseline (where relevant and feasible). The PIU will use the MIS to make operational adjustments during implementation, promote accountability for resource use against objectives, capture stakeholder feedback, and generate inputs for the dissemination of results and lessons. The CADP will also adopt a participatory M&E approach in which the selected SME members will monitor project activities. A web-based and geo-tagged M&E system that includes real-time monitoring images and data for each subproject/investment activity across all selected areas will be implemented. Data collected will be disaggregated, analyzed, and reported by gender and generation.

75. **Evaluation.** The PIU will contract an independent, rigorous, quantitative evaluation of impacts of the CADP across a range of selected indicators, starting with a baseline study in the first year, followed

by mid-term and end-of-project surveys. Results will allow for technical or design adjustments, if warranted, including to the Results Framework. The final impact evaluation at project completion will use an agreed methodology and variables for measuring the transformational impact of project investments on beneficiary groups, whose status at project conclusion will be compared with the without-project situation. All analyses will, to the extent possible, be disaggregated by gender. The quantitative impact evaluation will be accompanied by qualitative studies and other specific analytical work as needed.

C. Sustainability

76. **There is full government ownership of the proposed project—based on the priorities expressed in its national policies and strategies.** Greater private sector participation in the agriculture sector, which this project directly supports, is at the core of these strategies. Fostering market-based relationships among value chain actors and strengthening the technical capacity of public and private stakeholders represent two important elements of the project's sustainability strategy. The project is expected to strengthen producer networks by engaging key players in the agribusiness/commercial value chain and creating economies of scale by aggregating outputs and enhancing the collective bargaining power of members. Component 1 activities will promote strong, sustainable business relationships between farmers/agribusiness SMEs, the buyer/off-taker community, and financial institutions, which can continue beyond the life of the project. Project-supported business plans, benefiting from technical assistance from inception to implementation, will comply with World Bank environmental and social safeguards and will, where relevant, introduce and support the adoption of modern technologies, including for climate change adaptation and mitigation. Finally, infrastructure investments in rural roads, irrigation, and last-mile electricity connections will include O&M systems in place and functioning.

77. **Engaging private actors in policy discussions reduces the likelihood of backtracking in reform initiatives, which will be reinforced by building capacity in the public and private sectors.** Public-private dialogue will be fostered to stimulate and garner support for proposed reforms in the enabling environment for agribusiness to be financed under Component 3. Selected institutional capacity issues will also be addressed. Investment in continuous technical assistance to build local planning capacity and support for the resolution of land tenure issues, will be key to project success and will have long-term value for targeted beneficiaries. Finally, technical incentives and assistance (sustainable technology approaches and practices) are expected to improve management of natural resources and overall technical capacity and the sustainability of their businesses.

D. Role of Partners

78. **AFD co-financing** was approved in September 2017. A separate project-specific co-financing agreement, based on an umbrella agreement framework between the World Bank and AFD, is being discussed and will be finalized by effectiveness, based on the project requirements.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

79. Table 2 shows the key risk categories and ratings, followed by a discussion of each category.

Table 2. Risk Ratings

Risk Category	Rating
1. Political and Governance	Substantial
2. Macroeconomic	High
3. Sector strategies and policies	Substantial
4. Technical design of the project	Substantial
5. Institutional capacity for implementation and sustainability	High
6. Fiduciary	Substantial
7. Environmental and social	Substantial
8. Stakeholders	Substantial

80. **Political and governance (Substantial).** Despite the new Government's rapid action on reforms to open opportunities in the private sector, political economy issues could delay implementation. Reform efforts supported by the project would focus on the intersection between political feasibility and impact. The envisioned public-private dialogue will facilitate the process of identification of feasible measures to address the binding constraints for value chain development. Governance risks, including capture of project benefits by entrenched interests, exist. These risks will be mitigated by setting clear eligibility criteria for farmers and agribusiness SMEs that include an established track record, formal status, and a cap on the maximum project size and land holdings (for projects that involve land). Furthermore, the initial business plans selected by the technical committee will undergo prior review by the Bank. Additional mitigation measures will include transparency through extensive outreach to potential beneficiaries and engaging farmer and civil society organizations in the project areas, accountability in the use of project proceeds, and a strong grievance redress mechanism (GRM).

81. **Macroeconomic (High).** Despite the Government's efforts to address macroeconomic imbalances, macro-financial challenges may dampen private sector investment in agribusiness. Continued restrictions in foreign exchange access could jeopardize the implementation of the business plans, as most agricultural inputs are imported. Furthermore, rising interest rates and public debt may undermine bank credit to the private sector. The project will leverage other World Bank activities and dialogue with the Government on macro and financial aspects. Macroeconomic risks will be evaluated during implementation and adjusted as necessary. In addition, the World Bank, AFD, and MINAGRIF, jointly with MINFIN and the Central Bank, have identified mitigating measures to address the foreign exchange risks, including purchases of equipment by the PIU on behalf of the beneficiaries.

82. **Sector strategies and policies (Substantial).** The new Government has articulated a clear vision for private sector participation in the economy. This policy direction is expected to crystalize into a strong focus on the role of the private sector in the NDP under preparation. The Government's objectives for the agriculture sector are articulated clearly in MINAGRIF's PDMPSA (2018–2022) and emphasize competitiveness. However, wide-ranging, participatory consultations by the Government

showed that policies and programs need strengthening and activation, more data, and improved understanding of market demand. The project will promote the inclusion of private sector perspectives in the articulation of policy priorities and the strengthening of MINAGRIF's capacity for sector analysis and market-oriented policy development through studies, technical assistance, and training.

83. **Technical design of the project (Substantial).** Commercial agriculture development requires multi-sector solutions that address critical bottlenecks, increasing project complexity. The prioritization of value chains increases the risk of a limited demand response for Component 1, but the project design has built-in flexibility to adapt to the demand response and related challenges that may arise during implementation. Demand will be assessed after the first initial call for proposals to assess any necessary adjustments. Technical risks will also be mitigated by the recruitment of experienced TSPs and technical experts at the PIU and close supervision by the World Bank/AFD task teams.

84. **Institutional capacity for implementation and sustainability (High).** Limited institutional capacity at MINAGRIF is the main risk for this project. An additional risk is related to the coordination of the provincial governments and other ministries (primarily MINEA for the 'last-mile' electricity connection). To strengthen the PIU implementation capacity, local and international experts will be hired as needed to support and train Government officials. In addition, MINAGRIF will formalize the collaboration with the provincial government and with MINEA. Finally, the work plan and budget for the first 24 months will be approved by the World Bank during the first two months after effectiveness.

85. **Fiduciary (Substantial).** The main risks are associated with weak institutional capacity, limited knowledge of the World Bank procedures and difficulty in finding FM and procurement specialists. The project will ensure that the project's fiduciary teams receive regular World Bank training and mentoring over time. Building on the experience of MOSAP I, the project will invest in capacity building, including pairing local and foreign PIU staff to accelerate implementation and increase local capacity and ownership.

86. **Environmental and Social (Substantial).** Potential adverse environmental and social impacts of project components are expected to be small scale and site specific. Some of the infrastructure investments envisioned could potentially lead to soil erosion and water logging, water contamination, alteration of water flows, including risks of health and safety for the community and contractor's workers. The project will promote activities to enhance productivity and could prompt the use of small quantities of pesticides to treat orchards and crops against pest and infestations. Although irrigation works to be undertaken by the project will be small scale with limited impacts, some of the construction works may require the hiring of an external work force, with the risk of labor influx in rural areas. The borrower lacks experience in managing World Bank operations and safeguards aspects. To ensure that the environmental and social risks and impacts associated with the project activities are properly managed, an Environmental and Social Management Framework (ESMF) and Pest Management Plan (PMP) have been prepared, consulted on, and publicly disclosed in country on April 9, 2018 and by the World Bank on April 11, 2018. The project is not expected to lead to significant land acquisition or significant restrictions on access to sources of livelihood. However, to minimize potential involuntary resettlement MINAGRIF has elaborated a Resettlement Policy Framework (RPF) to adequately address issues of land acquisition and compensation and/or the physical displacement of people affected by the project that cannot be avoided. The screening procedure and arrangements developed in the ESMF and RPF will ensure adequate mitigation/compensation of the potential environmental and/or social

impacts. The PIU will recruit environmental and social safeguards specialists to oversee the implementation of the ESMF, PMP, and RPF, respectively. The rating will be reassessed upon establishment of the PIU and updated after the recruitment and training of the PIU environmental and social safeguards specialists to reflect the accurate risk.

87. **Stakeholder risk (Substantial).** Certain stakeholders, including farmers and SMEs targeted by the project, may oppose the project, question the location of project investments, or choose not to participate, which could negatively impact implementation. This is in addition to risks related to capture of project benefits described above. Consultations during preparation, however, showed broad support for the project's approach and demand for the instruments envisaged for direct support to eligible beneficiaries. The project design includes stakeholder involvement, including through diverse platforms for public-private dialogue and communication, as well as the GRM system mentioned above.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

88. **Summary results.** An economic and financial analysis (EFA) was prepared as part of project preparation. The quantitative portion of the analysis focuses on Components 1 (Matching Grants and PCGs) and 2 (Infrastructure investments). Since Component 3 focuses primarily on technical assistance and support to creating an enabling environment for agribusiness investments, a qualitative analysis focusing on the potential benefits of investments under this component is included. Project cash flows were discounted over a 15-year period using a 12 percent discount rate. The project window is six years. Specifically, Subcomponents 1.1 and 1.2 (delivering Matching Grants and PCGs, respectively), were analyzed jointly due to the strong overlap in project beneficiaries between the two. Some 311 business plans will receive both Matching Grants and PCG-backed loans. About 40 additional business plans will receive PCG loans without a Matching Grants. The base case Net Present Value (NPV) and Economic Rate of Return (ERR) for Component 1 is estimated at EUR 91,445,432 and 22 percent. Component 2, which will invest in rural infrastructure in the form of road rehabilitation (surface rehabilitation as well as bridges and culverts), last-mile electricity lines and small-scale irrigation, has an estimated NPV and ERR of EUR 28,818,410 and 29 percent, respectively.

89. **Rationale for public intervention.** Banks in Angola are reluctant to lend to the agriculture sector, which limits the growth and prospects of an important sector for economic diversification, job creation, and poverty reduction. The CADP seeks to mobilize bank lending to commercially-oriented producer organizations and agribusiness SMEs through the Matching Grants and PCGs. The Matching Grants will incentivize participating beneficiaries to invest in the knowledge and equipment necessary to accelerate business growth during the project intervention; and the PCG will help reduce agricultural lending risks for Angolan banks. Over time, the CADP seeks to build more sustainable businesses along the agriculture value chain while strengthening the capacity of Angolan banks to successfully underwrite agricultural loans, thereby overcoming existing market failures limiting sector investment. The goal is increased sector growth, profitability, and access to credit. Direct support to eligible farmers and agribusiness SMEs needs to be complemented by investments in public goods, specifically infrastructure provision (roads, irrigation, and last-mile electricity connections), to increase the viability of the business

plans. This would reduce existing bottlenecks and facilitate production intensification and market access.

90. **World Bank's value-added.** The World Bank's value addition is primarily as a channel for global expertise in agribusiness development and financing programs, and infrastructure, especially the capacity building and technical expertise required for such programs to have a successful impact on local populations. The World Bank's knowledge of and experience with environmental and social standards needed for infrastructure investments–including similar projects in multiple countries—is especially valuable. The World Bank team includes members with deep expertise and a strong relationship with the Angolan Government and relevant implementing agencies. Additionally, the World Bank uses its convening power to coordinate the support with other donor and private sector programs.

B. Technical

91. Tailored technical approaches were incorporated in the design of the project components, drawing on experience from other projects in Angola and from other countries with comparably large oil sectors. The project is deemed technically sound and supports the Government's efforts to promote economic diversification, growth, and food security. Project results will be achieved through project actions to promote economic development through market inclusion, by adding value to increase the scale of rural production and productivity, and other non-agricultural activities, thereby generating jobs and incomes. Section IV. C. (Sustainability) presents the specific technical design choices made to ensure the project's technical soundness and sustainability of its outcomes.

92. Extensive consultations were conducted during identification and preparation, including with government institutions, agribusiness firms including large companies and SMEs, producer organizations, banks, off-takers, including distribution and processing firms, academia, NGOs, and international and bilateral donors. The project's component activities and technical approach reflect the feedback from these consultations.

C. Financial Management

93. An FM assessment was carried out in accordance with the World Bank's 'Policy and Directive for Investment Project Financing' and the 'Financial Management Manual for World Bank IPF Operations' issued by the FM Sector Board on March 1, 2010, and last reviewed on February 10, 2017. The overall conclusion of this assessment is that the proposed project's FM arrangements have an overall residual FM risk rating of 'Substantial' as the arrangements (accounting staff and systems, internal control produces, and project external auditors) are not yet in place. However, the proposed FM arrangements are considered adequate and satisfy the World Bank's minimum FM requirements under World Bank Policy and Directive for Investment Project Financing.

94. The PIU established under MINAGRIF will have overall fiduciary responsibilities for project implementation. The FGC will have fiduciary responsibilities for the capitalization of an agribusiness window for PCGs in collaboration with the PIU. The project senior FM specialist, reporting to the PIU coordinator, and supported by two accountants (one dedicated to the Matching Grants), will have overall responsibility for project FM matters. The project senior FM specialist has been appointed and

two qualified and experienced accountants will be appointed no later than two months after the project effective date. The project funds, expenditures, and resources will be accounted for using an automated accounting package. The basis of accounting will be Financial Reporting under Cash Basis. The disbursement of IBRD funds will be done on a transaction basis (statements of expenditures [SOEs]) and the following disbursement methods may be used under the loan: (a) reimbursement; (b) advances; (c) direct payments; and (d) special commitments.

95. The PIU will prepare quarterly unaudited interim financial reports (IFRs) and provide such reports to the World Bank within 45 days of the end of each calendar quarter. These reports will include financial information on the PCGs. The project financial statements will be audited annually and the audit report will be submitted to the World Bank no later than six months after the end of each financial year.

D. Procurement

96. **Procurement procedures.** The borrower will carry out procurement under the proposed project in accordance with the World Bank's 'Procurement Regulations for IPF Borrowers' (Procurement Regulations) dated July 2016, and revised in November 2017 under the 'New Procurement Framework (NPF)'; the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated July 1, 2016; and other provisions stipulated in the Financing Agreements. The bidding documents will be amended to reflect the role of AFD as co-financier. AFD will have the opportunity to review some key procurement documents, TORs, and procedures. Procurement arrangements under the Matching Grants subcomponent will be defined in a dedicated operation manual prior to disbursement.

97. **Procurement arrangements.** The PIU will include procurement responsibilities and will be staffed with a senior international procurement specialist supported by a procurement assistant.

98. **Project Procurement Strategy for Development summary.** Works for the rehabilitation of rural roads will be split by provinces because they are spread out in large areas. Request for Bids in open international competition will be the procurement method. For the rehabilitation of irrigation infrastructure, two packages are expected using open international competition. Most procurement of goods will be through the request for quotation, while the procurement of vehicles will be done through a United Nations (UN) agency. The selection of consultants (firms) to support component implementations will mainly be through short list and the Quality - and Cost-Based Selection method. Individual consultants will be selected using the Individual Consultant method.

99. **Procurement capacity.** During project preparation an assessment of the borrower's procurement capacity was conducted. The procurement risk for the preparation phase was rated 'Substantial' as the procurement structure and procedures were not yet fully in place. A POM is being prepared and will incorporate sections on procurement and contract management.

100. The **procurement risk** associated with the project in view of the risks indicated earlier and MINAGRIF's experience with previous World Bank-financed projects is 'Substantial'.

E. Social (including Safeguards)

101. **Eligible project beneficiaries include:** (a) individual and organized farmers (cooperatives, associations) in the project areas; (b) SMEs in the agribusiness sector; (c) rural women and youth within the typologies in (a) and (b); and (d) MINAGRIF and financial and credit guarantor institutions for activities linked directly to Matching Grants and PCGs, to benefit from technical assistance. The socioeconomic characterization of beneficiaries will be part of the investment application process and will be used to track the results of investments. Applications for Matching Grants will require social management plans and annual reporting on social impact.

102. **Gender.** The gender-related project activities/design elements include: (a) cooperating with the Ministry of Family and Women's Promotion at decentralized levels and partnering with the Angolan Federation of Women Entrepreneurs (national membership 3,000) as a project gender focal point in Angola; (b) ensuring that subproject selection/financing criteria encourage women to apply and that selection committees have gender balance; (c) providing training for MINAGRIF staff and service providers on gender issues and training/recruitment of female extension agents; (d) ensuring/enabling women's access to training, leadership opportunities, and networks; (e) facilitating women's organized access to credit; (f) conducting gender analysis at the subcomponent level; (g) ensuring that research and technology packages include crops preferred by women; (h) ensuring that the baseline and monitoring system collects gender-disaggregated data whenever possible; (i) ensuring women's participation in Water User Associations through training in management and O&M; and (j) ensuring that any contracts for civil works under the project include Codes of Conduct detailing measures on gender-based violence (GBV).

103. **Social impacts.** The overall social impact of the project is expected to be positive. Potentially adverse social impacts are likely to be small scale and site specific. Significant land acquisition or restrictions on access to sources of livelihood because of the project, are not expected. However, as the project will include investments in critical market and common use infrastructure, the World Bank policy OP/BP 4.12 on Involuntary Resettlement was triggered. The project will finance activities associated with the construction and rehabilitation of small-scale irrigation infrastructure, rural roads, and electricity transmission lines that could require involuntary land acquisition resulting in physical impacts on people and/or loss of assets, means of livelihoods or resources. The PIU prepared an RPF with the principle and procedures for managing issues of land acquisition requiring compensation and/or the physical displacement of peoples. It includes detailed guidance for the preparation of site-specific Resettlement Action Plans (RAPs) before or during the preparation of project investments. The RPF has been consulted and disclosed both in-country on April 9, 2018, and by the World Bank on April 11, 2018.

104. **Indigenous peoples.** Because there are no indigenous or minority groups—as defined by the World Bank's policy OP/BP 4.10 - Indigenous Peoples—in the areas where the proposed CADP is to be implemented, this policy is not triggered.

105. **Citizen engagement.** Citizens and civil society will be engaged in project implementation through their participation in the provincial-level Consultative Councils. The satisfaction of project beneficiaries with advisory services under Component 1 will be tracked by a specific indicator. Beneficiaries will be involved through: (a) stakeholder policy dialogue and consultation associated with activities under Components 1, 2, and 3; and (b) beneficiary and stakeholder feedback on market

constraints, technical assistance, extension services, knowledge gaps in innovations, and project trainings. Usually, in infrastructure investments in rural areas, the labor force (total or partial) needs to be brought in from outside the project area. In many cases, this influx is compounded by an influx of other people (‘followers’), who follow the incoming workforce with the aim of selling them goods and services or in pursuit of job or business opportunities. The project will include, in the contract documents for civil works and supervision, explicit codes of conduct, satisfactory to the World Bank, setting out requirements on, among others, labor (including child labor), environmental health and safety, and GBV for contractual workers and staff. In addition, the borrower, through the PIU, will closely monitor and supervise in accordance with the ESMF, which reflects and incorporates guidance from the Labor Influx Guidance Note Framework, to endeavor to prevent and, if needed, adequately address possible associated tension with local communities, including violence against women related with the project. In addition:

(a) The project will set up a GRM building on both traditional conflict-resolution mechanisms and project-based steps to ensure community members and all stakeholders have an opportunity and means to raise their concerns or to provide suggestions regarding project-related activities. From the community to the national level, there will be focal persons to receive, record and address grievances, queries and suggestions. A reporting line of received (and addressed) grievances will be clearly defined to provide the PIU full data. Complaints will be categorized and recorded at the provincial and central level by the PIU and consolidated periodically. The database will also be an effective management tool to monitor progress and detect potential obstacles in project implementation.

(b) The project's GRM rules and communication steps will be explained so that all stakeholders are aware and encouraged to use the mechanism. To better inform stakeholders, the project will prepare materials in local languages to be displayed in public areas as part of the communication activities. More detailed information on the principles and requirements for the CADP GRM are set forth in the RPF.

(c) The PIU will comprise environment and social specialists, who will be responsible for monitoring grievances and following up on their resolution. Working closely with the environmental specialist, the PIU social development specialist will: (i) supervise the implementation of the project's GRM—this includes active monitoring of any complaints received, technical assistance for the resolution of any complaints, and regular reporting to the PIU and the World Bank; (ii) review and provide social development and safeguard inputs for the project's annual work plan—this may include preparing budgets and defining timelines for the preparation of RAPs or other environmental and social instruments, implementation of the communication plans, and implementation of the GRM; (iii) prepare and implement regular capacity-building sessions for the PIU (both central and regional) and project beneficiaries—possible topics may include safeguards, social safeguards, worker health and safety, gender, child labor, and GRM; and (iv) actively participate in implementation support missions with the World Bank and provide timely and concise reports on the status of safeguards compliance and implementation, and GRM.

(d) The citizen engagement activities will be complemented by awareness-raising activities and targeted information campaigns directed to farmers and agribusiness SMEs to ensure that they know how to benefit from project activities. The project also aims to foster greater participation of women and youth farmers by proactive outreach to these target groups.

106. The PIU will also be able to receive complaints through its phone, fax lines, and a local toll-free number, to be set up specifically for the project, and disseminated in all communication materials within one year after the project effectiveness. Citizens' grievances could also be received in person, either at the PIU or the PPIT offices and by mail. In addition, project information and monitoring system (MIS) will contain a dedicated field to register all grievances and responses related with project implementation.

F. Environment (including Safeguards)

107. Angolan environmental legislation is recent and inspired by international conventions signed by Angola, and provides sufficient basis to manage the environmental and social aspects of the CADP activities. No relevant gaps between Angolan environmental legislation and the World Bank's safeguards policies and guidelines were identified. Regarding the environmental impact assessment, the existing Angolan regulatory framework covers the most relevant principles and best practices, including public consultation and participation, monitoring, and licensing procedures. MINAGRIF has acquired experience in managing the World Bank's safeguards requirements of projects, specifically through the MOSAP. With World Bank support under the CADP, MINAGRIF will build on it. Nevertheless, substantial capacity development and training will be required to handle project safeguards, especially in ensuring

subproject screening and subsequent preparation of the Environmental and Social Impact Assessment (ESIA)/Environmental and Social Management Plan (ESMP) and RAP, as necessary.

108. The Government intends to further strengthen its capacity for safeguards management under the CADP by recruiting new environmental and social focal point staff, technical assistance, and training (in situ and abroad) funded by the project. Regional training seminars/workshops will be organized for all actors involved in the implementation of social and environmental safeguards policies, following project effectiveness. More specifically, a small, two-person Safeguards Unit will be established in the PIU comprising a social safeguards specialist (to advise on and oversee gender and social inclusion aspects) and an environmental safeguards specialist (in charge of natural resources management and environmental oversight and compliance issues). These specialists will be assisted at the provincial level by a social and environmental counterpart who will oversee implementation of and compliance with safeguards policies. The safeguards triggered are discussed in the following paragraphs.

109. **Safeguard Policy OP 4.01 - Environmental Assessment.** The project falls under Category B, due to minor to moderate potential negative impacts from the construction of rural roads, electricity and water infrastructure for irrigation, and possible land administration reforms which might have adverse impacts on soil, water, air quality, flora, and fauna. Some of the adverse impacts might include land rights conflicts, soil erosion and water logging, alteration of water flows due to irrigation schemes, vegetation loss and fauna disturbance for access roads and power transmission construction, and risks to the human health of those handling pesticides. Consequently, OP/BP 4.01 is triggered to comply with the Environmental Assessment safeguard requirements. As the specific geographic details/footprint and impacts of individual subprojects are not yet known, an ESMF (December 2017) was prepared to help mitigate potential environmental and social impacts (for example, child labor and GBV risks) from direct and indirect investment in project selected areas and guide preparation of the ESIA. The final ESMF has been consulted and was disclosed in-country on April 9, 2018, at http://www.minagri.gv.ao/categories/9 and at the World Bank, on April 11, 2018.

110. The following World Bank safeguards policies are triggered as shown in Table 3.

Table 3. Safeguard Policies Triggered

Safeguards Policies	Yes	No
Environmental Assessment (OP/BP 4.01)	•	
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)		•

111. **Natural Habitats (OP/BP 4.04).** The project is not expected to invest in activities directly affecting natural habitats. However, expansion of cropland, rural road improvements, and water infrastructure might occur near national parks or protected areas, leading to possible downstream

impacts affecting ecosystem services and functions provided by natural habitats. The ESMF includes specific provisions to mitigate impacts on natural habitats.

112. **Forests (OP/BP 4.36).** The project will not have direct or indirect negative impacts on the health and quality of forests, as defined by this policy, or on the health and safety of people who depend on forests. However, the clearance of vegetation for rural roads improvement, minor cropland expansion and water infrastructure may require compensatory reforestation and tree maintenance along the rehabilitated roads. The ESMF includes appropriate mitigation measures for such cases.

113. **Pest Management (OP 4.09).** The promotion of agricultural activities may include the use of small quantities of pesticides to treat orchards and crops against pests and infestations to enhance the agricultural productivity of project beneficiaries. A PMP to help mitigate potential risks to human health and to the environment, using integrated pest management approaches has been prepared and disclosed.

114. **Physical Cultural Resources (OP/BP 4.11).** This policy is triggered as project investments involve infrastructure (roads, irrigation, electricity) that may require large movements of earth in areas likely to contain sites deemed physical cultural resources by communities living there (for example, holy sites, sacred graves, sacred forests). To ensure due diligence, chance find procedures have been included in the ESMF and will be included in the ESMP to address OP/BP 4.11 basic requirements.

115. **Safety of Dams (OP 4.37).** The project may finance activities aiming at developing new or rehabilitating small-scale irrigation schemes under Component 2, which may depend on existing dams or rely on water provided from a reservoir. If that is the case, the World Bank will review previous assessments of dam safety or recommendations and safety programs already in operation for the dam before commencement of activities. Generally, it is envisaged that no significant environmental and social risks may arise.

116. **Projects on International Waterways** (**OP 7.50).** The policy has not been triggered, because project activities will use a national river, Kwanza, which originates in Bié Province and empties into the Atlantic Ocean just south of the capital, Luanda. It is critical to clarify that although various transboundary rivers cross Bié, one of the selected provinces where project activities shall be implemented, the project does not envision any investments on small irrigation schemes in the Bié province, as the province benefits from high precipitation throughout the year.

117. **Climate risk assessment.** The key drivers for climate risks in Angola—current and future—are high temperatures, drought, high precipitation levels and associated floods. These impose higher stress on sustainable use of natural resources, crops, productivity, and social consequences related to food security and unsustainable use of natural resources.

118. **Climate resilience.** The Climate and Disaster Risk Screening Tool has highlighted an increasing trend for more frequent and severe droughts and floods, mandating recommended actions such as irrigation, introduction of drought-tolerant varieties, and conservation agriculture practices. Resilience enhancement for rural roads rehabilitation (drainage system) is also recommended and has already been considered through the inclusion of transversal drainage systems (culverts and small bridges) in

road design. Subproject environmental and social assessment procedures will take all these aspects into consideration, along with access features for vulnerable and disabled groups.

G. World Bank Grievance Redress Service

119. 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 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 its 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), please 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, please visit www.inspectionpanel.org.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

Project Development Objective(s)

The proposed Project Development Objective is to increase productivity and market access for selected beneficiaries in the project areas.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Aggregate increase in yields per standard unit of selected crop and non-crops by participating farmers		Percentage	0.00	0.00			
Maize		Percentage	0.00	50.00	Per season	MIS Mid-year and final evaluations	PIU/MINAGRIF
Coffee		Percentage	0.00	50.00	Per season	MIS Mid-year and final evaluations	PIU/MINAGRIF

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Beans		Percentage	0.00	50.00	Per season	MIS Mid-term and final evaluations	PIU/MINAGRIF
Poultry (eggs per production cycle)		Percentage	0.00	15.00	Per production cycle	MIS Mid-term and final evaluations	PIU/MINAGRIF

Description: This indicator would measure improved productivity per standard unit of crops prioritized by the Government for project support per production cycle. This would be compared to a baseline measurement of productivity pre-investment.

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Increase in average gross sales by crop/non-crop activities of beneficiary farmers and SMEs		Percentage	0.00	12.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF

Description: This indicator measures increase in volume of gross sales after one commercial cycle compared to a baseline measurement of the gross sales before the project investment. Results will be gender-disaggregated.

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Farmers reached with agricultural assets or services	✓	Number	0.00	11500.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF
Farmers reached with agricultural assets or services - Female	✓	Number	0.00	4500.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF
Description:							

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Farmers adopting improved agricultural technology	✓	Number	0.00	5000.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Farmers adopting improved agricultural technology - Female	✓	Number	0.00	1500.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF
Description:							
Name: Number of sub-projects implemented and operational		Number	0.00	210.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF
Description: Measures the number of sub-projects of beneficiary farmers and SMEs, implemented and operational, based on the business plans approved and completing technical implementation support by the project.							
Name: Partnerships sustained over 1 year		Number	0.00	70.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description: Measures the project's success in formalizing market access arrangements for beneficiary farmers/SMEs. Measures the number of contractual arrangements facilitated by the project and sustained after one commercial cycle.							
Name: Partial credit gurantees - outstanding amounts		Amount(USD)	0.00	58500000.00	Annually	FGC	FGC PIU/MINAGRIF
Description: Calculation of the volume of partial credit guarantees issued.							
Name: Beneficiaries satisfied with the quality of services received by the project		Percentage	0.00	70.00	Mid-term and Project end	Survey	PIU/MINAGRIF
Description: Measures the satisfaction of beneficiary farmers and SMEs with the technical assistance and services provided by the project.							
Name: Rural population living within 2 km of the nearest road in good condition		Number	0.00	500000.00	Annually	MIS Mid-year and final evaluations	PIU/MINAGRIF
Description: The estimate uses a breakdown of the roads to be rehabilitated by municipality; average population density per municipality from the 2014 Population Census. Target will be confirmed during the first year of implementation after mapping of rural infrastructure is completed.							

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: Water user associations using improved irrigation management and planning		Number	0.00	20.00	Annually	MIS MId-term and final evaluations	PIU/MINAGRIF
Description: Measures number of water user associations and water user groups established and/or strengthened applying irrigation management and planning. It measures the extent to which irrigation water supply and usage is more organized, suggesting greater efficiency.							
Name: Area provided with new/improved irrigation or drainage services	✓	Hectare(Ha)	0.00	2500.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF
Description: This indicator measures the total area of land provided with irrigation and drainage services under the project, including in (i) the area provided with new irrigation and drainage services, and (ii) the area provided with improved irrigation and drainage services, expressed in hectare (ha).							
Name: Public private dialogue (PPD) platforms with action plans validated by its members		Number	0.00	3.00	Annually	MIS MId-term and final evaluations	PIU/MINAGRIF

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description: Measured by the constitutive document of the Public-Private Dialogue signed by all its members and an action plan report approved by a majority of the PPD platform members.							
Name: Improved agriculture technologies resulted of research institutes' partnerships with international R&D institutions supported by the project		Number	0.00	5.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF
Description: Measures the number of agriculture technologies not previously available in Angola, that are newly developed or adapted, with support from the project through partnerships between Angola's research institutes and international research and development institutions.							
Name: Services offered by MINAGRIF using the Business Intelligence (BI) system		Number	0.00	5.00	Annually	Business intelligence system	PIU/MINAGRIF
Description: Number of distinct services (e.g. information on regulatory requirements, weather conditions, market place, price information, etc.) offered by MINAGRIF to the users of the Business Intelligence (BI) system to be developed and launched with project support and made available to agribusiness stakeholders.							
Name: Number of electricity connections supported by the project		Number	0.00	175.00	Annually	MIS Mid-term and final evaluations	PIU/MINAGRIF

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Description: Electricity connections to eligible farmers and agribusiness SMEs supported by the project.							

Target Values

Project Development Objective Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
Aggregate increase in yields per standard unit of selected crop and non-crops by participating farmers	0.00							0.00
Maize	0.00	0.00	0.00	5.00	25.00	35.00	50.00	50.00
Coffee	0.00	0.00	0.00	0.00	0.00	30.00	50.00	50.00
Beans	0.00	0.00	0.00	15.00	30.00	50.00	50.00	50.00
Poultry (eggs per production cycle)	0.00	0.00	0.00	5.00	10.00	15.00	15.00	15.00
Increase in average gross sales by crop/non-crop activities of beneficiary farmers and SMEs	0.00	0.00	2.00	4.00	8.00	10.00	12.00	12.00
Farmers reached with agricultural assets or services	0.00	0.00	2000.00	5000.00	7000.00	9000.00	11500.00	11500.00
Farmers reached with agricultural assets or services - Female	0.00	0.00	600.00	1500.00	2100.00	2700.00	3450.00	4500.00

Intermediate Results Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
Farmers adopting improved agricultural technology	0.00	0.00	500.00	1000.00	2500.00	4500.00	5000.00	5000.00
Farmers adopting improved agricultural technology - Female	0.00	0.00	150.00	330.00	750.00	1350.00	1500.00	1500.00
Number of sub-projects implemented and operational	0.00	0.00	10.00	50.00	100.00	150.00	210.00	210.00
Partnerships sustained over 1 year	0.00	0.00	3.00	15.00	35.00	70.00	70.00	70.00
Partial credit gurantees - outstanding amounts	0.00	0.00	3365000.00	10100000.00	23500000.00	40400000.00	58500000.00	58500000.00
Beneficiaries satisfied with the quality of services received by the project	0.00	0.00	0.00	60.00	0.00	0.00	70.00	70.00
Rural population living within 2 km of the nearest road in good condition	0.00	0.00	0.00	50000.00	200000.00	350000.00	500000.00	500000.00
Water user associations using improved irrigation management and planning	0.00	3.00	5.00	8.00	12.00	16.00	20.00	20.00
Area provided with new/improved irrigation or drainage services	0.00	0.00	200.00	500.00	1500.00	2000.00	2500.00	2500.00
Public private dialogue (PPD) platforms with action plans validated by its members	0.00	0.00	1.00	2.00	3.00	3.00	3.00	3.00

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
Improved agriculture technologies resulted of research institutes' partnerships with international R&D institutions supported by the project	0.00	0.00	0.00	2.00	4.00	5.00	5.00	5.00
Services offered by MINAGRIF using the Business Intelligence (BI) system	0.00	0.00	0.00	2.00	4.00	5.00	5.00	5.00
Number of electricity connections supported by the project	0.00	0.00	0.00	50.00	100.00	150.00	175.00	175.00

ANNEX 1: DETAILED PROJECT DESCRIPTION

Angola: Commercial Agriculture Development Project

A. Project Development Objective

1. The proposed PDO is to increase productivity and market access for selected beneficiaries in the project areas.

B. Geographic Scope and Value Chains

2. **Geographic coverage.** The project follows a spatial approach to removing existing bottlenecks to the development of commercial agriculture (including technical knowledge, finance, and critical infrastructure) along two 'roads corridors'. These corridors link—through the road network—the central highlands, traditional agricultural areas, and those most affected by the conflict, with the large urban market of Luanda. The two corridors comprise the following provinces: (a) Luanda-Bengo-Cuanza Sul-Huambo-Bié-Norte de Huila; and (b) Luanda-Bengo-Cuanza Norte-Malanje. These corridors represent highly productive areas with strong agro-ecological potential. They offer favorable agro-climatic conditions to produce maize, soybeans, beans, and coffee (in addition to other crops such as vegetables, groundnuts and fruits) (see maps in Annex 6).

3. **Gradual implementation.** Within the two corridors and to start implementation, 12 municipalities in three provinces were prioritized: Cuanza Norte and Malanje Provinces (Corridor A), comprising the municipalities of Cazengo, Lucala, Camambe, Gulungo Alto, Cacuso, and Malanje, and Cuanza Sul Province; and (Corridor B), comprising the municipalities of Quibala, Libolo, Cela, Mussende, Quilenda, and Amboim. The initial focus on 12 municipalities seeks to concentrate project investments and test implementation arrangements and is consistent with agreed criteria for the selection of the project's geographic coverage:

(a) Concentration of organized producers and micro, small, and medium agribusiness firms relative to other areas. This has promoted collaboration, knowledge spillovers among producers, development of specialized labor and in some cases, centralized input purchasing.

(b) Aggregation/proximity of these municipalities.

(c) Existence of infrastructure in production and surrounding areas (within 50 km) based on the PPA-financed infrastructure mapping exercise.[52]

(d) Access to consumer centers and transport hubs.

4. The appendix to this annex summarizes key characteristics of these three provinces.

[52] Diagnostic of Supporting Infrastructure - Current Status in the Project Area, Incatema, Third Report, December 2017.

5. **The scope of the CADP is based on previous and current experiences of World Bank-supported operations in Africa and other regions, and will introduce the model known as 'productive alliance'**. A productive alliance would identify market opportunities mutually beneficial to its constituents in priority value chains, detailed in a business plan, which includes a financial feasibility assessment. Productive alliances would also foster value-added processing, compliance with sanitary standards, and certification, and enable a scaled response to verified market demand. As the first of its type in Angola, the CADP seeks to establish: (a) improved access to the capital needed to boost farm and SME asset accumulation—physical, financial, human, and/or social (through technical assistance, Matching Grants, and PCGs); (b) improved productive infrastructure—rural roads, irrigation, last-mile electricity connections, post-harvest management, and input/output markets; (c) technological innovation—product, process, and organization—reducing down-side risks affecting productivity, including production losses; and (d) strengthened sector institutions, primarily MINAGRIF, market intelligence services and an improved business environment with enhanced public-private dialogue to enable agribusiness development.

6. **More specifically, this concentration of farmers and agribusiness creates positive production externalities** such as collaboration between economic actors and knowledge spillovers between producers, development of specialized labor, and in some cases, centralized purchases of inputs among producers in the region. Initially, focus on these municipalities seeks to concentrate investments, facilitate project management, simplify institutional arrangements, and learn from implementation.

7. **The project will support a set of value chains**—maize, coffee, soybeans, beans, and eggs/poultry—in targeted geographic areas per the Government's priorities—while developing supply chain studies in the selected corridors and leaving open the possibility of expanding investments in further supply chains beyond the initial five prioritized. Although, at the Government's request, the project will initially focus on the abovementioned value chains, it is expected that the menu will be expanded, allowing market opportunities to be identified irrespective of the supply chain from where they originate. This is consistent with the CADP's role as a foundational commercial agriculture project aligned with the broad thrust of the government's economic diversification and food security objectives and priorities.

8. **The Government has prioritized these value chains to reduce import dependency in basic food products**—Angola currently produces 50 percent of the cereals and 55 percent of the beans it needs to meet its consumption needs, and just 10 percent of the chicken meat consumed—and, in the case of coffee, increase export revenues, thus contributing to reducing dependency on oil revenues. Angola offers good agro-climatic conditions and land and water availability for production of these value chains, especially for coffee, which has a long history (at its peak coffee area under production covered more than 550,000 ha, although currently just about 50,000 ha).[53] Furthermore, there is a large critical mass of farmers and entrepreneurs already working on those value chains—approximately 9,000 families in soybean production, 430,000 families in beans, and 25,000 families in coffee production, at the national level.[54] There are support institutions (national and international) involved in their development, basic

[53] Non-oil sectors Value-chain analysis in Angola - RFP/UNDP/AGO/SPE and 00087942/2014.
[54] Non-oil sectors Value-chain analysis in Angola - RFP/UNDP/AGO/SPE and 00087942/2014.

infrastructure investments, and private interest in investing in those value chains.[55]

9. **Detailed value chain studies are being conducted in the selected corridors with support from the PPA**, which will form the basis for project-supported value chain development activities and for the Government's broader policy and planning. This activity includes developing a methodology for identifying promising value chains, grounded in evidence of economic impact and competitiveness. Pending detailed analytical results of the above studies and two recent assessments, conducted during preparation, provide a window into the types of challenges faced by the priority value chains in the selected provinces and municipalities. See appendix 1 to this annex.[56]

10. **Project components.** The project has four interlinked components and is designed to launch implementation of all four simultaneously, following the logical sequence of activities for each component defined in the PAD and detailed in the POM. Component 1 seeks to catalyze agriculture and agribusiness potential by supporting eligible farmers and agribusiness SMEs in the project areas. Support to eligible farmers will follow a productive alliance approach through which these producers target new markets and seek to establish commercial relationships with off-takers.

11. Support to agribusiness SMEs will focus on helping them connect with specific off-takers and markets (both domestic and export), through strengthening of business practices, supply chain development, and ability to meet market requirements. Component 2 will support public investments in agricultural service roads and other infrastructure (access to electricity and irrigation) selected based on the location (clustering) of the demand for subprojects from farmers and agribusiness SMEs in Component 1. Component 3 will contribute to creating a better enabling environment for sustainable agribusiness development by addressing constraints to value chain development identified through public-private dialogue, supporting new technologies in priority value chains in Angola, and strengthening MINAGRIF's institutional capacity. Component 4 focuses on project management and M&E. Two basic principles will guide project investments design: (a) a demand-driven approach based on business opportunities along the value chain; and (b) the geographical concentration and targeting of project interventions where commercial opportunities exist, and the need for support has been identified by market actors. The project will seek to crowd-in the private sector across all components.

Component 1: Promotion and Support for Agribusiness Development (EUR 64 million [US$ 78.9 million], of which EUR 53 million [US$ 65.3 million] IBRD and EUR 11 million [US$ 13.6 million] from AFD)

12. The component will support eligible farmers and agribusiness SMEs—including those led by/made up of women and youth—to overcome market failures (information, coordination) limiting their ability to adopt better technologies, access financial markets, upgrade their skills, and transform/process and commercialize their products. The component combines the project's financing instruments, Matching Grants and PCGs, with extensive technical assistance to build the capacity of producer groups and agribusiness SMEs to present bankable business plans, establish commercial

[55] For example, a 1,000 ha investment in Arabica coffee in Kwanza-Sul, as well as several medium-large scale investments in maize production in Malanje.

[56] FAO. 2018. Rapid Assessment – Characterization of Potential Beneficiaries; Diagnostic of Supporting Infrastructure: Current Status in the Project Area, Incatema Consulting and Engineering, February 2018 (Final Report).

partnerships, and improve their business capabilities. This will help strengthen farmer-agribusiness links, including farmer groups with women and youth. Public and private stakeholders consulted during project preparation stressed the need for specialized technical assistance geared to generate a pipeline of good quality projects with viable business plans for financing and supporting beneficiary stakeholders to implement those plans. The proposed subcomponents are detailed in the following paragraphs.

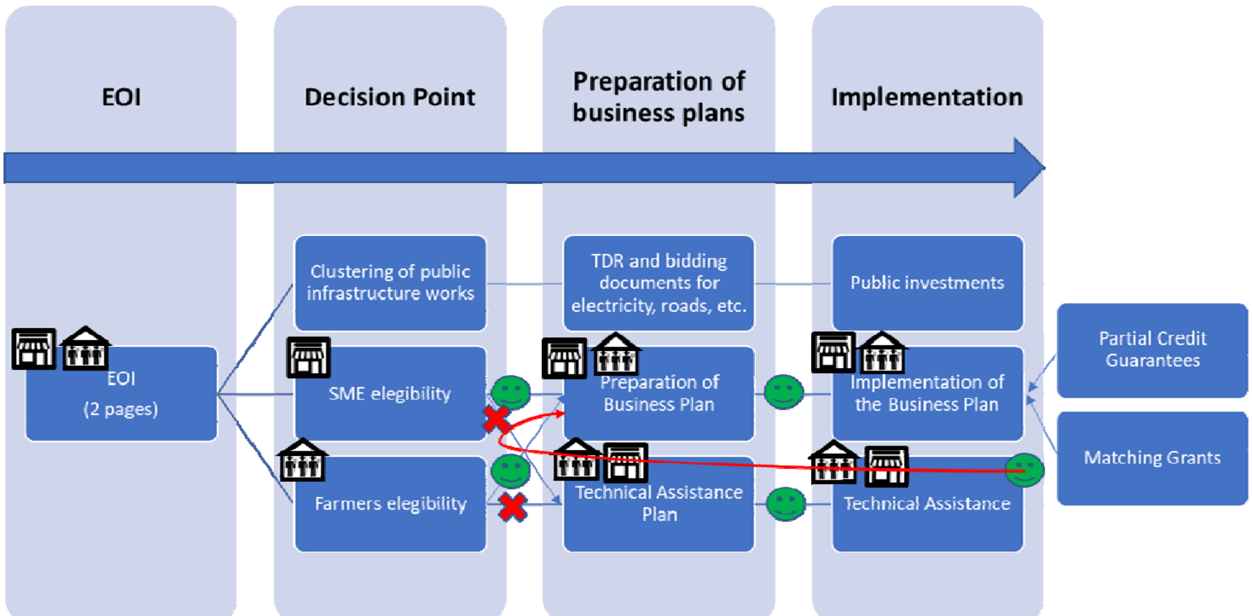
Subcomponent 1.1: Strengthening Skills, Productivity, and Commercialization (EUR 44 million [US$ 54.2 million], of which EUR 33 million [US$ 40.7 million] IBRD and EUR 11 million [US$ 13.6 million] AFD)

13. **Objective and scope.** This subcomponent will finance technical assistance to promote the project; identify potential investments; define beneficiary needs; and identify, prepare, and implement market-driven business plans with economic, financial, technical, and commercial viability within priority value chains. The core interventions will target the two core sets of beneficiaries: (a) farmers using a productive alliances model; and (b) agribusiness SMEs/agro-processors using a market links model. Thee technical assistance directed toward productive alliances and SME links will be different and distinct. Business plans will be financed through Matching Grants, accessible to eligible farmers and agribusiness SMEs on a competitive basis. Internationally recruited TSP firms, resident in Angola, will help identify and evaluate viable subprojects, prepare business plans, provide technical oversight of their implementation, support applicants for bank loans, and provide technical and business management mentoring. Activities include: (a) developing a communication strategy/plan to promote transparent access to information about project objectives and activities; (b) training and certification of local service providers in business plan development and implementation; (c) brokering links between off-takers/buyers and farmer organizations/agribusiness SMEs; (d) strengthening farmer organization and managerial capacity; (e) improving the business practices of agribusiness SMEs; and (f) helping farmer organizations and agribusiness SMEs obtain essential registrations and approvals to meet project eligibility criteria. The project will work with specialized technical services suppliers with experience in value chain analysis and development and with capacity, to identify, train, and certify local service providers. Gender-specific training for women will focus on organization, technology, business skills development, and ensuring balanced access to project benefits. Furthermore, in the scoring of business plans, additional points and/or additional support will be awarded to business plans incorporating women in leadership positions and youth. In addition, female-owned and managed enterprises will have access to a dedicated technical assistance package that includes technology, business skills development entrepreneurship, leadership, coaching on networking, and mentoring for business management. Although there is no indicator for youth, the project will favor their participation in several types of activities, for example, training, technical assistance, and research and development, among others.

14. **Matching Grants.** The Matching Grants will be accessible to eligible farmers and agribusiness SMEs competitively to finance approved business plans—building on the World Bank's experience of 20 plus years supporting Matching Grants—within the priority value chains. The goal is to help unlock growth in agribusiness potential, including for women and young people, through a demand-based approach for overcoming market failures in accessing financial resources for agribusiness investments (agricultural technologies, services, processing/other). The grants are intended to promote investments that forge productive alliances between farmer organizations and agribusiness SMEs and other value chain players. The grants will be demand driven and will finance investments such as agricultural technologies, services, and processing.

15. **Eligibility criteria.** The eligibility criteria for presenting a business plan include having a legal status (as a farmer organization or SME), having acceptable formal land tenure/security arrangements (if land is involved in the business proposal), track record, and having less than 500 ha (in case land is involved). The eligibility criteria will be detailed in the POM. The subproject cycle is presented in figure 4.

Figure 4. Subproject Cycle



16. **Business plans.** Eligible farmers and agribusiness SMEs will need to submit a business plan that clearly identifies market demand for the firm's products and services, and shows returns on investment and financial sustainability of the firm's operations. Following an initial response to a call for expressions of interest (EOIs), the project will provide technical assistance support to the approved EOIs in the preparation of the business plans under Subcomponent 1.1. A well-designed outreach and marketing strategy will be developed to ensure transparency, knowledge of, and uptake of the program. This should include partnering with organizations at the local level such as district agencies, rural associations, cooperatives, and NGOs, among others. Special efforts will be made to ensure the participation of women and youth, including a possible dedicated round for these groups.

17. **Matching Grants windows.** Two windows are envisioned, one for smaller projects of up to EUR 125,000 with a 50 percent project match and one for larger projects of up to EUR 825,000 million with a lower project match (not to exceed 30 percent, but with a 50 percent match on the first EUR 125,000). Eligible beneficiaries would finance the remainder, either through equity—at least 10 percent recipient contribution is required, in cash, or potentially, in kind—and/or external finance (i.e. Bank loan), potentially backed by a PCG supported by Subcomponent 1.2. The Matching Grants will be allocated based on a competitive process and could cover: (a) capital (for example, plant and equipment, irrigation infrastructure, and electricity); (b) working capital; and (c) technical assistance and advisory services expenditures. Support for equipment will be accompanied systematically by technical assistance to ensure the proper use and maintenance of the investment.

18. **Prioritization criteria.** The applicant's business plan will need to demonstrate that the investment contributes to addressing at least one of the following challenges: product upgrade, process improvement, new product development, volume increase, or reduction of the environmental footprint. Core scoring and selection criteria will be based on technical, financial, and economic soundness, demonstrated access to markets, gender and youth considerations, socio-environmental safeguards (including land due diligence and respect of tenure rights) and sustainability, and maximum land size (if a business plan involves production). Additional points and/or additional support will be awarded to business plans incorporating women in leadership positions and youth. In addition, female-owned and managed enterprises will have access to a dedicated technical assistance package that includes entrepreneurship, leadership, coaching in networking, and mentoring for business management. Business plans that can prove a positive impact on the environment or nutritional outcomes could receive priority and additional support.

19. **Technical Evaluation Committee.** Business plans will be reviewed and approved by a Technical Evaluation Committee comprising: (a) a value/chains/agribusiness specialist from MINAGRIF; (b) banks; (c) specialist representative of the FCG; and (d) outside experts, selected on an ad hoc basis, depending on the value chains represented. The composition and TOR of the Evaluation Committee would be included in the Matching Grants Operations Manual, as will the criteria for the evaluation of proposed business plans. Deliberations of the Technical Evaluation Committee will be open to the public and its final decisions would be publicly disclosed (for example, newspapers, project website), thereby building transparency into the process of evaluation and approval of the use of public funds.

20. **Matching Grants Operations Manual.** A specific Matching Grants Operations Manual will be developed as a disbursement condition for this subcomponent setting out the process for grant application, evaluation, disbursement, and monitoring. The manual will include forms/templates to be used and dedicated sections for FM, procurement, environmental and social safeguards, and anticorruption guidelines. Where possible, simplified procurement rules should be used for the acquisition of good/services. A short list of qualified equipment suppliers can also be prepared to support the selection process, while also ensuring that regular maintenance and spare parts would be available.

Subcomponent 1.2: Partial Credit Guarantees (EUR 20 million [US$ 24.6 million], IBRD)

21. **Objective and scope.** The objective of financing PCGs is to promote access to financing for the project's beneficiaries by reducing the risk of exposure of financial institutions, thus increasing their incentives to finance agricultural activities. Coordinating grants with PCGs, supported by technical assistance to financial institutions, could be a catalyst in promoting private sector financing to new types of clients and bankable investments. This subcomponent would target eligible farmers and agribusiness SMEs for their financing needs whether these are for fixed assets or for working capital. It would support the project's Matching Grants beneficiaries by providing a guarantee to a commercial bank loan to finance their business plan. The guarantee window will also be open to eligible project beneficiaries who have not applied for a Matching Grants up to a certain amount.

22. **Existing guarantee program under the FGC.** The project's PCG fund will use the FGC's existing structure established in 2012 under MINFIN and supervised by the Central Bank, and which has a reasonable performance/track record providing guarantees for SME loans. Some 39 percent of the FGC's

guarantee portfolio is in agriculture. The PCG, supported by technical assistance to financial institutions, could be a catalyst in promoting private sector financing to new types of clients and bankable investments. A dedicated project window will be created to provide capital to back the issuance of guarantees to benefit targeted project beneficiaries. The FGC was established to support PCGs under the *Angola Investe* Program. On average, the guarantee coverage ratio for loans in the agriculture sector is 65 percent. The duration of the guarantee can be up to seven years and the average in the portfolio is for six years. Banks can call on the guarantee when loans are overdue by 90 days, and they can demonstrate efforts to contact the borrower as well as unsuccessful attempts to collect on the debt, and even restructuring. The FGC monitors and follows up with problematic clients. It is also planning to open a window to interact directly with potential project beneficiaries as a way of generating a pipeline of projects and having a better understanding of market conditions.

23. **Financial institution qualification for PCG participation.** For participating banks wishing to benefit from the guarantee coverage under the project, a prequalification process would be undertaken. Financial institution eligibility criteria will be transparent and open to all institutions that have an interest in lending to the project beneficiaries.[57] Such criteria will include adequate capitalization, appropriate governance, solid risk management systems, low levels of NPLs, existing experiences in financing agriculture, and using the guarantees of the FGC, among others. Any bank that passes such criteria should be able to access the guarantees. It is expected that four to five banks would qualify initially, but the enrollment is open at any time that a bank qualifies and meets the criteria. The criteria will be specified in the PCG Operations Manual.

24. **Technical assistance.** This subcomponent will include technical assistance to banks (estimated at US$150,000 per participating bank) to: (i) help them understand the nature and objectives of the agricultural projects covered by the Matching Grants and the PCG; (ii) to appraise agricultural loans covered under the PCG scheme; and (iii) provide capacity support to the FGC for project implementation. The banks could use information and financial and business data generated by this technical assistance to help them assess the opportunities and lending risks involved in the projects that require a loan and a PCG. The project will also support awareness raising and will reach out to banks to promote the guarantees.

25. **Guarantee coverage and fees.** The partial guarantees would use the prevailing guarantee coverage ratio in agricultural loans, which is 65 percent, and charge the same price as the FGC currently charges for agricultural loans (2 percent). Guarantee coverage of 65 percent is the average currently provided by the FGC and in line with global average according to World Bank review of international experience with PCGs. Pricing will be market based and cover expected losses plus administration costs.[58] The project will cover the administration costs of the scheme for the first two years, until the scheme accumulates enough loans and fees to cover expenses. These costs could be deducted from the capital of the guarantee fund. The PCG fees would be priced so that the facility would remain sustainable after project conclusion and would continue to serve this market segment following project conclusion. Fees would cover the projected cost of risk (cost of defaults) and administrative costs, while

[57] Angolan banks in which the IFC invests can benefit from the PCG scheme to expand their commercial agriculture portfolio.
[58] Usual/typical price range (by global experiences) is often between 1.5 and 2.5 percent per year on the outstanding loan principal balance.

the guarantee funds would also be earning some investment or interest income (according to the investment manual for the guarantee funds). The FGC currently uses a leverage ratio of 2.5 (for EUR 2.50 of loans the fund has EUR 1.00 in capital to back the guarantee) which is in line with global experience for similar markets and country environments.

26. **Estimated PCG financing and fund capitalization.** It is estimated that the Project will provide guarantees to an estimated 355 loans to support beneficiaries' lending to finance projects.[59] Thus, the amount of guarantees is 65 percent of EUR 50 million, which, with the existing leverage ratio of 2.5, would require EUR 20.0 million of fund capitalization to back those guarantees. Capitalization of the FGC will be done in four instalments. The first two shall be subject to the disbursement conditions set out in the loan agreement (execution of the subsidiary agreement and the PCG Operations Manual satisfactory to the World Bank for the first instalment and selection of at least two banks for the second). The second two will be based on the credit provided by banks to eligible farmers and agribusiness SMEs and guaranteed by the FGC.

27. **Technical design.** The design of the PCG subcomponent follows the World Bank Group principles on designing PCG schemes, issued in December 2014 and covers the governance, management, administration, sustainability, and monitoring of PCGs. Additionally, although it is housed within an existing agency (FGC), the project PCG will have its own Operations Manual and Monitoring Framework, which will leverage mainly from the existing Operations Manual or Procedures and Reporting used by the FGC for its current operations. An area of focus should be the payout procedures of the guarantee. Procedures need to induce prompt payment of the bank credit guarantee following default, but banks should be responsible for loan recovery procedures. International experience indicates that delays in payout on the guarantee when such guarantees are triggered are often cited as a key reason for banks' low demand for guarantee schemes.

28. **TIC.** As in the case of the Matching Grants, the TIC would be responsible for approving guarantees and comprise public and private sector representatives with expertise in agriculture finance and the FGC.

Component 2: Infrastructure for Production and Marketing (EUR 76.5 million [US$ 94.3 million], of which EUR 36 million [US$ 44.4 million] IBRD and EUR 40 million [US$ 49.3 million] AFD)

29. This component will finance critical enabling infrastructure for the development of commercial agriculture in the project areas, including: (a) rehabilitation of rural roads; (b) small-scale public irrigation infrastructure; and (c) 'last-mile' connection to the electricity grid and/or conversion to tri-phasic. The location of these investments will aim to facilitate investments supported by the project under Component 1. The proposed subcomponents are detailed in the following paragraphs.

Subcomponent 2.1: Rehabilitation of Rural Roads (EUR 36 million [US$ 44.4 million], of which EUR 12 million [US$ 14.8 million] IBRD and EUR 24 million [US$ 29.6 million] AFD)

[59] Preliminary calculations estimate that all projects benefiting from the Matching Grants will receive PCG, that is a total of 200 projects under the small window with an average loan size of US$40,000 and 111 projects in the large window with an average loan of US$450,000. In addition, it is estimated that an additional 40 loans for projects not receiving Matching Grants averaging US$800,000 would receive PCG under the project.

30. **Objectives and scope.** This subcomponent will improve market access of farmers in the selected project areas by facilitating access between the main roads and the location of their activities. Improved road access to markets will enable farmers to transport production to more profitable markets, as opposed to relying on intermediaries who offset the high transport costs and losses by increasing the final sale price. The project will finance the rehabilitation and improvement of existing rural roads, adopting appropriate technologies to increase their sustainability and resilience, especially during the rainy season, and to minimize future climate-related damage. Works will be prioritized to eliminate critical constraints, that is, places where it is difficult to pass through as the water inundates the tracks, particularly during the heaviest and most frequent rains. To eliminate these critical constraints, small concrete bridges, and aqueducts (tubular or galleries) will be included. In addition, primary coatings with gravels may be included, but in limited locations considering the limited budget. Meanwhile, new road construction, paving of roads, and large bridges will not be considered.

31. **Prioritization criteria.** The roads to be improved by the project will mainly be the tertiary roads within the areas of influence of the two road corridors selected by the project, for example, within 50 km of the main roads, initially in the 12 prioritized municipalities in the three provinces (Cuanza Norte, Cuanza Sul, and Malanje). A geo-referenced mapping of existing rural roads in these municipalities has been prepared with support from the PPA. The selected roads will not be part of the fundamental road network as defined by the Angolan Institute of Roads (*Instituto de Estradas de Angola*, INEA). The fundamental network is composed of primary roads, most of which are secondary and part of tertiary roads with a total length of 26,000 km, which INEA has already rehabilitated or is planning to rehabilitate directly. Roads not included in the fundamental network are under the responsibility of the provincial governments, which will also facilitate the institutional arrangements for the implementation of this subcomponent. For the implementation of this subcomponent, MINAGRIF will establish an institutional arrangement strategy with the provincial and municipal governments to ensure the maintenance of the works to be financed after the project end. The main criteria for the selection of road stretches are the following: (a) they connect beneficiaries to markets; (b) the works demonstrate technical, socio-environmental, and economic-financial viability; and (c) there is commitment of provincial or municipality governments for maintenance after the works. The selection of the road stretches will be finalized based on discussions with MINAGRI.

32. **Road maintenance.** This component will also include technical assistances to assess the capacity for maintaining rural road infrastructures, as well as support to strengthen capacity for provincial and municipal governments in this area. This includes, among others, the development of a strategy for the rural road asset management, to ensure that rural roads are well maintained in a sustainable way. In principle, provincial or municipal governments are responsible for the maintenance of roads not belonging to the fundamental network, but in practice road upkeep often suffers due to limited budget.[60] Training, seminars, and acquisition of equipment for strengthening road asset management for rural roads will also be considered. Routine maintenance works for the rural roads rehabilitated by the project will be included.

Subcomponent 2.2: Support to Public Irrigation Projects (EUR 24 million [US$ 29.6 million], of which EUR

[60] The costs of typical maintenance work for rural roads are approximately US$40,000 per km (approximately US$300,000 per km are needed for rehabilitation).

8 million [US$ 9.9 million] IBRD and EUR 16 million [US$ 19.7 million] AFD)

33. **Objective and scope.** This component is designed to develop/rehabilitate about 2,500 ha of irrigated land within the project area and provide support to the pilot management of two irrigation schemes developed with public resources. It will finance the: (a) rehabilitation of existing irrigation infrastructure in the project areas (for example, tertiary canals within irrigated perimeters, connections between canals in production areas), focusing on small and medium schemes (irrigated schemes between 50 ha and 500 ha); (b) identification and feasibility studies, including the design of the schemes; and (c) level of required technology.

34. **Prioritization criteria.** The identification of the irrigation investments will be led by a technical team in coordination with the department of rural engineering in the Ministry of Agriculture and INHIA. MINAGRIF's National Irrigation Development Plan (*Plano Irriga*) will be the basis for identifying activities under this subcomponent. Road works will be based on a well-articulated investment proposal and beneficiary commitment to contribute to recovery of the O&M. The schemes will be assessed by a technical team before investment is considered to ensure social, environment, economic, and financial feasibility of the investments. Beneficiaries will have to secure the land rights before investment takes place. The project is also expected to pilot improved management in two existing schemes by establishing water user associations for their management. The schemes will be selected based on criteria agreed with the Government; to include technical, economic, and social aspects; availability of project design with sound social and environmental considerations approved by the Government; and existence of a critical mass of users and feasibility of the schemes. The irrigation system investments will consist of the following: (a) upgrading of the area around the water intake and main canals, (b) construction of water collection structures, (c) installation of control structures, and (d) upgrading of the main canals.

35. **Support services**. This support to small-scale irrigation development will also include supporting the establishment and/or strengthening of services to irrigator-producers, water user associations and unions, and their members, and may include: (a) technical and economic aspects related to production: agricultural advice, action research for agroecological intensification; (b) organizational and infrastructure management aspects: governance and functioning of irrigators' associations, development and implementation of a maintenance policy, royalty management; and (c) accounting and legal aspects: drawing up of statutes, certification of accounts, and relations with financial institutions for access to credit. This support will be provided by experienced and qualified service providers.

36. **Management scheme pilots.** The project is also expected to pilot improved management in two existing schemes by establishing water user associations for their management. The schemes will be selected based on criteria agreed with the Government that will include technical, economic, and social aspects such as availability of the approved project design with sound social and environmental considerations approved by the Government, existence of users, and feasibility of the schemes.

Subcomponent 2.3: Last-mile Rural Electricity Connections (EUR 16.5 million [US$ 20.3 million] IBRD)

37. **Objective and scope.** The project will support the 'last-mile' connection of project beneficiaries in the selected areas to the main/national electricity transmission grid. Access to electricity will address a key constraint to investments in processing, irrigation, and livestock by the eligible farmers and

agribusiness SMEs, which would benefit from Component 1. These investments are currently not viable due to the high cost of operating generators. MINAGRIF will work closely with the MINEA's National Directorate for Rural Electrification to implement this subcomponent, and this collaboration will be formalized in a Memorandum of Understanding, to be approved by the World Bank. ENDE will be responsible for the O&M of infrastructure built by the project.

38. **Prioritization criteria.** A PPA-financed mapping exercise is assessing the status of the electricity distribution network in the initial 12 municipalities.[61] Planned grid extensions in the project areas are expected over the project implementation period, based on the NDP for the Energy Sector 2018–2022. The location of the 'last-mile' electricity connections will be defined based on the results of the analysis and the clustering of electricity connection needs based on the business plans supported by the project. A detailed rural electrification pipeline and plan for the project areas, approved by MINEA and MINAGRIF, shall be approved by the World Bank as a disbursement condition for this subcomponent. Detailed criteria to be spelled out in the POM will outline the methodology to define the connections to be financed, the conditions for which include maximum length of the connection, maximum cost, cost-sharing by beneficiaries, and a strong public good dimension.

Component 3: Institutional Strengthening and Improved Business Environment (EUR 32 million [US$ 39.4 million], of which EUR 10 million [US$ 12.3 million] IBRD and EUR 22 million [US$ 27.1 million] AFD)

39. The objective of this component is to improve the business environment and institutional capacities to support the competitiveness and sustainability of the agribusiness sector. This component will support activities, identified through public-private dialogue mechanisms, that help address constraints to private investment along agriculture value chains. This component will also foster the strengthening of public research and development in agriculture to promote the adoption of technologies adapted to Angola's agro-climatic conditions, and reinforcing the capacity of MINAGRIF to design and implement policies and programs to support commercial agriculture. Project sub-components are summarized below.

Subcomponent 3.1: Value Chain Strategy Development (EUR 12 million [US$ 14.8 million], of which EUR 3 million [US$ 3.7 million] IBRD and EUR 9 million [US$ 11.1 million] AFD)

40. **Objective and scope.** This subcomponent will finance the definition of development strategies for selected value chains, using a public-private dialogue mechanism (at national and local levels) which includes private sector actors in each value chain. A TSP will facilitate the dialogue and conduct market studies and other analysis supporting an action plan to address the constraints in private participation in value chains. By promoting the private sector's engagement in the identification of necessary actions to address binding constraints, the project is expected to build trust between the Government and the private sector and ensure better targeted policies supporting commercial agriculture. Implementation of the action plan is expected to focus on: (a) technical assistance to improve regulations, including reducing regulatory barriers to entry and competition; (b) improving food safety regulations and

[61] Government's program includes ambitious plans to increase electricity generation; expand the central distribution network connecting the North, Central, and South systems; invest in renewable energy; and develop mini-grids for remote areas.

strengthening product quality by improving standards and piloting certification; (c) development of processing, marketing, and investment promotion strategies; (d) development of information and risk-management systems for the value chain; and (e) facilitating of value chain finance through studies and workshops. This subcomponent will also finance studies of other potential value chains beyond the five prioritized, based on government priorities and private sector feedback.

Subcomponent 3.2: Research and Development (estimated total cost EUR 12 million [US$ 14.8 million], of which EUR 3 million [US$ 3.7 million] IBRD and EUR 9 million [US$ 11.1 million] AFD)

41. **Objective and scope.** This subcomponent seeks to strengthen the national research system, specifically the IIA, Coffee Institute, and the Angolan Institute of Veterinary Research to expand access to productivity-enhancing technologies, including climate change adaptation and mitigation, within Angola to farmers' organizations and poultry chain producers. Complementarity between the activities of the CADP and MOSAP and the proposed Angola APPSA will be promoted.[62] The CADP will prioritize research in the coffee and chicken value chains. This subcomponent will complement Subcomponent 3.1 in those areas where specific knowledge is needed to implement strategic value chain action plans. The activities will include the production of improved varieties of plants in nurseries, development of recommended technological packages for coffee growing and the commercial breeding of chickens, improvement of soil analysis services and the use of recommended types of fertilizers, training of national researchers and extension officers, and establishment of demonstrations centers when appropriate. Cooperative partnerships—on a competitive basis—with foreign universities and research institutes will be supported. The PIU will prepare an implementation plan in collaboration with national research entities, in the first year.

Subcomponent 3.3: Institutional Capacity Strengthening (EUR 8 million [US$ 9.9 million], of which EUR 4 million [US$ 4.9 million] IBRD and EUR 4 million [US$ 4.9 million] AFD)

42. **Objectives and scope.** This subcomponent will include technical assistance and equipment investments to strengthen MINAGRIF's capacity in areas linked to project objectives. These activities may include initiatives in partnership with other government entities. The following activities have been identified:

(a) Support for the development of a business intelligence system managed by GEPE to process information and data for the agricultural sector and enable better policy making and planning.

(b) Support for the development of land policy and governance mechanisms and participatory land use planning in the project area, linked to project investments. Project-supported investments will be preceded by a careful determination of the existing rights in the project area to ensure that those rights are respected and empower communities (and other land use rights holders) to negotiate beneficial agreements. The ongoing land

[62] This subcomponent will leverage the regional APPSA - Angola and Lesotho (P164486), which supports agricultural research, technology dissemination, and capacity-building activities associated within a regional collaborative framework around priority farming systems/commodities and value chains, where Angola will take the lead on cassava. It will also leverage other initiatives to strengthen agricultural Research and Development under the SADCP and other projects.

diagnostic is expected to provide an inventory and mapping of land rights and uses in the project area, as well as recommendations for addressing any outstanding issues or disputes and, on potential activities, to increase transparency of land governance and transactions and to strengthen the security of tenure for both existing land users and potential investors. Activities may include mapping and documentation of existing rights and uses, including those of tenants and vulnerable groups, using low-cost and culturally appropriate technologies and related technical and legal support. The project will further support participatory land use planning to help communities themselves define areas available for investment; determine values of land, crops, and other assets; and assess potential impacts on livelihoods.

(c) Weather index-based crop insurance development studies, for enabling improved climate change and climate variability risk coverage, such as against floods and droughts.

(d) Strengthening of the newly created INHIA to implement the updated *Plano Irriga*: irrigation development strategy and planning, management of public assets, supervision of studies and construction, and land use planning in irrigated areas.

43. Relevant agriculture policy studies to strengthen MINAGRIF's ability to support a competitive agribusiness sector, as well as training and knowledge exchanges for MINAGRIF officials and other relevant entities, are also considered here.[63]

Component 4: Project Management, Monitoring, and Evaluation (EUR 12 million [US$ 14.8 million], of which EUR 6 million [US$ 7.4 million] IBRD and EUR 6 million [US$ 7.4 million] AFD)

44. **Objectives and scope.** This component will finance: (a) PIU operational costs and multisector coordination—technical, fiduciary (procurement and FM), and social and environmental safeguards—at the central and decentralized levels; (b) institutional and technical capacity-building for project implementation at all levels; (c) M&E and information systems; (d) project website design, implementation, and maintenance; (e) baseline and impact evaluations; (f) midterm and final project evaluations; (g) communications strategy and information dissemination; (h) diverse knowledge exchanges; and (i) project results dissemination. Strong M&E systems for project implementation will be a top priority, as will be strengthening the PIU's capacity to plan and execute them.

[63] Preparation of an agriculture policy review; training and knowledge exchanges for MINAGRIF officials and other stakeholders to build capacity for market-oriented agriculture policies and programs and technical assistance to enhance competition dynamics in agricultural inputs and product markets, review of food safety regulations, and the institutional framework.

Appendix 1: Description of Initial Provinces and Value Chains

Overview of Off-takers

1. Preparation of the CADP included interviews with a range of national off-takers (distributors of fresh products, supermarkets, manufacturing companies, and hotels), which revealed strong, genuine interest in the development of commercial agriculture to increase the production of their local suppliers, reduce dependence on imported products, and increase freshness and control over the quality of the final products. The main off-takers identified are large distribution companies serving urban markets, primarily Luanda, many of which have foreign capital and top executives. In general terms, the national off-takers identified in Angola for the selected value chains are limited in number. Regarding the poultry and eggs value chain, the supermarkets interviewed declared that they buy most of their fresh chicken directly from a large industrial producer located near the capital, while frozen chicken is imported primarily from Brazil and the United States. On the other hand, domestic egg production has been increasing in recent years covering most of the off-takers' needs. Coffee is a value chain with potential, given the tradition of quality and suitable climate, but with important challenges to overcome to provide a steady supply of standardized quality. Regarding cereals, the major domestic beer producer showed strong interest in developing local cereal producers, especially maize, and potentially, rice, a product used by brewers in some cases as an important component for beer.

2. Most of the potential off-takers indicated their willingness to help identify possible beneficiaries of the project activities, to commit to future purchases through letters, and even to contracts to support the presentation of specific projects of direct interests. National off-takers point out the need to work beyond access to finance, that is, also in different actions related to the business environment such as the current regulations affecting access to foreign currency, strengthening links with public institutions, sectoral business development strategies, and public infrastructure.

Overview of Initial Provinces and Value Chains[64]

Kwanza-Norte

3. The third-smallest province in Angola, with an area of 24,110 km^2 and estimated population of 654,000, Kwanza Norte is divided agro-ecologically into two regions of diverse farming systems: (a) a sub-plateau of several elevations in the eastern zone, occupying 70 percent of total area, dominated by cassava and coffee plantations, and (b) a lowland area in the western and southern zones around the river Kwanza, farming mainly maize, banana and vegetables, and with the largest farms. Official data report 82,000 smallholder households farming 125,108 ha of land. Farmers also produce groundnut, beans, and fruits, while larger lowland farmers produce sheep, cattle, and swine. Kwanza-Norte has favorable conditions for aquaculture development due to water availability, especially in the south around the Kwanza River.

[64] See Diagnosis of Supporting Infrastructure - Current Status in the Project Area, Final Report, Incatema Consulting and Engineering, January 2018.

4. **Value chains.** A preliminary, rapid assessment of the priority value chains in Kwanza Norte shows the following:

(a) **Cereals.** Production of maize, beans, and soybean is concentrated in Cambambe municipality, with potential in two other municipalities with irrigation areas and/or existing production at levels of interest to the project. Most cooperatives lack organization and producers market individually. Technology levels are low, as are yields. Fertilizer use is low due to lack of know-how and agricultural input suppliers, pest, and disease control are minimal, and harvesting is manual. Some cooperatives are mechanized but maintenance is poor. Access to bank credit is almost nonexistent, production infrastructure is poor, and rehabilitation of secondary and tertiary roads is essential. Soybean production is not widespread and the area dedicated to this crop is modest. Trials suggest, however, that with market development, the province has the area, capacity, and know-how for soybean production. Cereals sale prices depend on the rainy season/water availability, with a 100 percent variation in the sales price of maize and beans.

(b) **Coffee.** Production (1,347 farmers of which 706 active) has declined with many pre-independence fields/estates abandoned. Production is concentrated in Golungo and Ambaca municipalities, in which there are limited 'nodes' classifiable as either in production or with potential for reactivation. Average yields are low (about 130 kg per hectare) compared to countries operating under commercial conditions. Some 90 percent of plantations (mostly Robusta) date to the colonial period, have not been maintained, and are in poor phytosanitary condition/unproductive. Gradual plantation renewal using sound genetic material, appropriate farming technologies, and post-harvest management are needed. Producers mostly market individually without contractual agreements and credit is nonexistent, limiting the reactivation of larger areas. Secondary and tertiary road improvement will be fundamental, along with improved production infrastructure and access to input suppliers.

(c) **Poultry and eggs.** Chicken and egg production does not currently operate at levels within the CADP production parameters. Production facilities are inactive, including a Government-owned plant with installed capacity to produce 500,000 chickens per 50-day production cycle, a feed factory with installed capacity of 5,000 tons per month, and a new but nonoperational poultry slaughterhouse. Feed availability is suppressed by the lack of inputs such as corn, soybean, and other ingredients.

Malanje

5. With an area of 97,602 km^2, Malanje Province is situated within the tropical savanna, with high average humidity and precipitation exceeding 1,200 mm. The province comprises three agro-ecological areas: (a) Malanje plateau at an altitude of 1,000 m to 1,250 m and area of 25,000 km^2; (b) Kassanje lowlands in the north; and (c) High Kwanza in the south. The Malanje plateau is a CADP focus area, targeting five municipalities of its 14 (Malanje, Cacuso, Calandula, Kwaba-Nzonji, and Cota). Economic life is concentrated on the plateau and its 1.0 million inhabitants (20 percent of total population) are

highly centralized around the provincial capital. The province has 197,000 smallholder households farming a total 63,155 ha (not including fruticulture and horticulture). Some 80 percent of this land is used for cassava production, a food staple. Smallholders are producing groundnut, sweet potato, beans, and fruits (mostly banana) for consumption and sale. Maize is produced mostly by SMEs and larger farms for the market. Agricultural enterprises also produce vegetables, beans, and fruits for commercial purposes, while animal husbandry is focused on swine, cattle, and poultry. Here also, opportunities for aquaculture are good, given water availability.

6. **Value chains.** Initial assessment of value chains in Malanje shows the following:

(a) **Cereals.** Maize, soybeans, and beans are concentrated in the municipalities of Cacuso, Calandula, and Malanje. Cacuso municipality is characterized by its large-scale cereal production companies, with maize the most significant. While not a project target, these farms represent a 'benchmark' for production in this municipality and the province. In Calandula, the primary crop is cassava. Cereal crops within the CADP target producers are limited or concentrated in large enterprises, for example, Posada de Calandula (200 ha of maize) and Braficom (800 ha maize). Only 3 of 30 agricultural and livestock producers in Malanje municipality lie within the project's targeted farm groups: PROLUX, HortoLau, and JJR. Municipal data show 979 farmer associations and 98 cooperatives, of which only 1 is legally registered. Yields of maize are indicative: large-scale enterprises (over 500 ha) show yields of 7 tons per ha compared to medium-scale producers (5–50 ha) with 1.5 tons per ha. Yield disparities are explained by: (i) the use of hybrid seeds, chemical fertilizers, and pesticides by larger producers while medium-scale farmers use their own seeds or standard grain purchased locally and no pesticides or fertilizers; (ii) large farmers' use of irrigation infrastructure and equipment, including electricity generators and pipelines; (iii) lack of agricultural machinery—tractor rental is limited; no rental or other mechanized services were identified (for example, for phytosanitary control or harvesting); and (iv) lack of technical assistance. MINAGRIF's farming advisory service is almost nonexistent for small- and medium-scale producers and lack even basic logistics support (transport, communication, electricity, office, or housing units). Meanwhile, bean and soya production are not widespread. Formerly large maize, bean, and soya production facilities were found largely abandoned. The study noted that the Nutrimutolo farm was the only one in the corridor dedicated exclusively to seed production and improvement, but classification is done manually and storage is rudimentary. Commercialization is largely individual. Deterring the purchase of local grain are quantity available and lack of uniform quality standards; poor grain quality due to lack of harvesting and post-harvest technology (grain dryers, silos, and irrigation infrastructure); and lower costs of imported product. Technology levels are low in the small and medium producer range. Bank credit is nonexistent for the project's target producers, mainly because most such producers do not have secured land title. There are few suppliers of agricultural inputs.

(b) **Poultry and eggs.** Chicken production in Malanje Province is negligible in the project's producer range of interest. Only Agricultiva is producing eggs at the facilities of the Program for Market-Oriented Family Poultry Production (PIAFOM) Project under a Government concession. The installed production capacity per shed is 7,000 birds and each shed produces an average of 3,800 eggs per day. The total daily production at three

PIAFOM units is 80,000 eggs. Eight other PIAFOM units in Malanje Province are non-operational. There are no associations or cooperatives in the poultry subsector. Commercialization occurs at markets in Luanda and Malanje. The technology level at Agricultiva is substantial, the company produces its own feed for each stage of poultry growth at the Lucala Automated Feed Factory in Kwanza Norte. The chickens were originally imported from the Netherlands but are now restocked from Aldeia Nova, an agribusiness firm in Kwanza-Sul. The main issues affecting eggs and poultry are: (i) lack of input supply (lack of feed suppliers/supply); (ii) poor road conditions cause significant egg losses in transit and increase transportation costs; (iii) the need to rehabilitate production infrastructure, including PIAFOM-related; and (iv) lack of credit and hence difficulties in reactivating production.

(c) **Coffee.** Not applicable.

Kwanza-Sul

7. This province has an area of 55,666 km^2, a population of 1.8 million and is divided agro-ecologically as follows: (a) coastal strip with arid and semiarid climate occupying 26 percent of the territory and dedicated to animal husbandry, fishing, and vegetables where irrigation is available; (b) sub-plateau with a humid, subtropical climate occupying almost half the territory, in the central zone, with irregular elevation and good rainfall, and suitable for Robusta coffee; and (c) a sub-humid climate in the highlands, occupying about 34 percent of the area, with rainfall above 1,200 mm but less fertile soils. Conditions are good for maize and bean production. Smallholder producers are an estimated 327,000, farming a total 449,000 ha—mostly maize, cassava, beans, and sweet potato for consumption. Better-off farmers and SME specialize in coffee, potato, and vegetables for market, using maize and beans to support production of their main cash crops. Large farms—up to several thousand hectares, mechanized and producing maize, potato, beans, vegetables, and soybean—are found in the southern and eastern parts. Many such farms allocate large areas to livestock and poultry. Coffee is historically the main cash crop in the Kwanza-Sul Province (see the following paragraphs) and while production has declined, the province still provides 30 percent of the national crop.

8. Initial assessment of value chains in Kwanza-Sul shows the following:

(a) **Cereals.** Commercial grains producers operate individually as the existing cooperatives and farmer associations are not operational: they do not meet, sell farmers' output jointly, or provide technical support. Maize and beans are often grown in rotation and there is no commercial soybean production. Yields are low for corn and beans. Farmers transport their produce to informal markets where they sell to intermediaries. The technology level is exceedingly low and there is no access to credit. These factors discourage commercial production.

(b) **Coffee.** Of the 120,000 ha cultivated in Kwanza-Sul in 1973, only 18,329 ha are in production today. The current yield (around 3,800 tons), is about 9 percent of pre-independence production levels. Even so, this province still provides 30 percent of total national coffee production. Favorable agro-ecological conditions mean that 5 municipalities out of 12 in Kwanza-Sul are suitable for coffee cultivation. The province has

18,600 ha under coffee production of which 5,440 ha represent 272 commercial coffee plantations from 10 ha to 100 ha. The remainder are 6,847 family producers with 1 ha to 10 ha. There are 14 cooperatives, mostly nonoperational, and all are in Amboim municipality. Yields are low, averaging 0.2 tons per ha in the dry season and 0.4 tons per ha when it rains. Production is sold through intermediaries who advance funds to finance the crop, set an agreed price for production irrespective of the official price at time of sale, and travel to the producer to conduct the transaction. Producers have no access to credit from the banking system. In Sumbe municipality, the Cafe Gabela brand has its own roasting unit with potential capacity for 72 tons per month. Storage and processing infrastructure is scarce, as is irrigation and the crop is handled manually at every stage. The main problem is lack of financial resources preventing the hiring of labor to clear/prepare land for coffee plantation recovery and reactivation.

(c) **Poultry and eggs.** Medium-size producers of chicken (200–1,000 units in production) are nonexistent in the initial municipalities, and there are just two egg producers within the stated production range, neither one currently operational. Medium-scale producers have machinery for feed production but lack raw materials. Technology is limited to automatic drinking troughs in poultry sheds and the rest of the production chain is entirely manual. Access to bank credit is nonexistent. The major problem faced by medium-size producers is access to and the prices of raw materials (feed, hens). In Kwanza-Sul, under the Aldeia Nova (largest national egg producer) production model, families commit, under formal contracts, to provide their eggs to this firm, which provides farmers with aviary inputs and supplies. Contractual terms and conditions include a first loan, payable in 24 months (with interest rates below bank rates), corresponding to the supply of breeding hens, feed rations, medicines, technical advice, and medical support. This project has improved marketing and service arrangements (community-based feed facility, egg hatchery) by giving farmers access to markets, technology, credit, and inputs.

ANNEX 2: IMPLEMENTATION ARRANGEMENTS

Angola: Commercial Agriculture Development Project

Project Institutional and Implementation Arrangements

1. MINAGRIF will represent the Government of Angola through a national PIU within MINAGRIF's GEPE. At the provincial level, a PIU representative will be hosted by the provincial government's Director of Agriculture to ensure coordination of project activities at the provincial level. The sector ministries are involved in project implementation, through the PSC (Figure 2.1). This implementation arrangement will: (a) ensure sector mainstreaming of investment; (b) reduce the approval layers for faster decision making and more efficient project implementation; and (c) respect the constitutionally mandated decentralization process and governance structures at the national and provincial levels, to the extent possible.

Executing Entities and Responsibilities

2. **MINAGRIF.** At the national level, the project will be implemented by MINAGRIF—which is already implementing the SADCP—with appropriate support from national and international consultants and technical assistance. An internationally recruited/contracted TSP, with experience directly relevant to project objectives and specifically to the preparation and implementation of business plans under a value chain approach, will support Component 1. MINAGRIF will be responsible for overall project coordination, in consultation with other relevant national ministries, to ensure that project activities are consistent with national policies and World Bank requirements.

3. **Project Steering Committee.** A PSC comprising ministries linked directly to specific project activities, will oversee project activities and progress: (a) to provide political and strategic guidance and facilitate inter-sector coordination for project activities; and (b) to review the annual project report and provide the input needed to resolve identified problems. The final decision-making authority will rest with MINAGRIF.[65]

4. **PIU.** MINAGRIF will establish a PIU, led by a project coordinator to: (a) coordinate project management, fiduciary, and safeguards aspects according to World Bank norms and requirements; and (b) manage the project based on the legal documents, the PAD, Loan Agreement, and POM. The PIU would depend on PPITs based within the provincial governments. The PIU will include specialists in agriculture/agribusiness, rural infrastructure, communications, and safeguards (environment and social) and a Matching Grants manager and technical specialist. Also included would be an M&E specialist/team, a senior procurement specialist and assistant, a senior FM specialist and assistant, two accountants, and other project-relevant positions (to be determined). If these specialist positions are

[65] Involved ministries with representatives on the PSC would include Construction, Industry, Transport, Energy and Water, Economy, Finance, Commerce and Environment, Family, and Women

filled by international consultants, each would have a local counterpart to develop local capacity and conserve institutional memory and continuity after the international consultant has completed the work.

5. The PIU will sign subproject agreements with project beneficiaries for investments approved under Component 1, make payments to service providers and suppliers, and monitor the implementation of subproject business plans. Its role is to: (a) accelerate decisions and processes; (b) review and approve preselected subprojects; (c) propose the agenda for PSC meetings and prepare supporting documents; (d) propose the annual plan and budget to the World Bank for approval; (e) present the project's annual report; and (f) analyze and decide questions and problems concerning the selection and approval of investment subprojects.

6. **FGC.** The FGC will issue credit guarantees under Subcomponent 1.2. A separate subsidiary agreement with the Government of Angola, represented by MINFIN, setting out the terms and conditions of the project funds assigned to the FGC will be required. A project agreement between the World Bank and the FGC will also be required since the FGC is a financial institution with a separate legal identity.

7. **TICs.** TICs for Components 1 and 2, respectively, will review and approve Matching Grants and the PCGs under Component 1 and, under Component 2, review and approve proposed production and marketing infrastructure investments. The Technical Committee for Component 1 will include the PIU, Ministry of Agriculture, financial institutions, private sector, and agribusiness specialists. The Technical Committee for Component 2 will include the PIU, focal points of the relevant ministries (for example, MINEA), private sector, and the TSP supporting Component 1 as an observer to ensure coordination across infrastructure investments and business plans supported by this component.

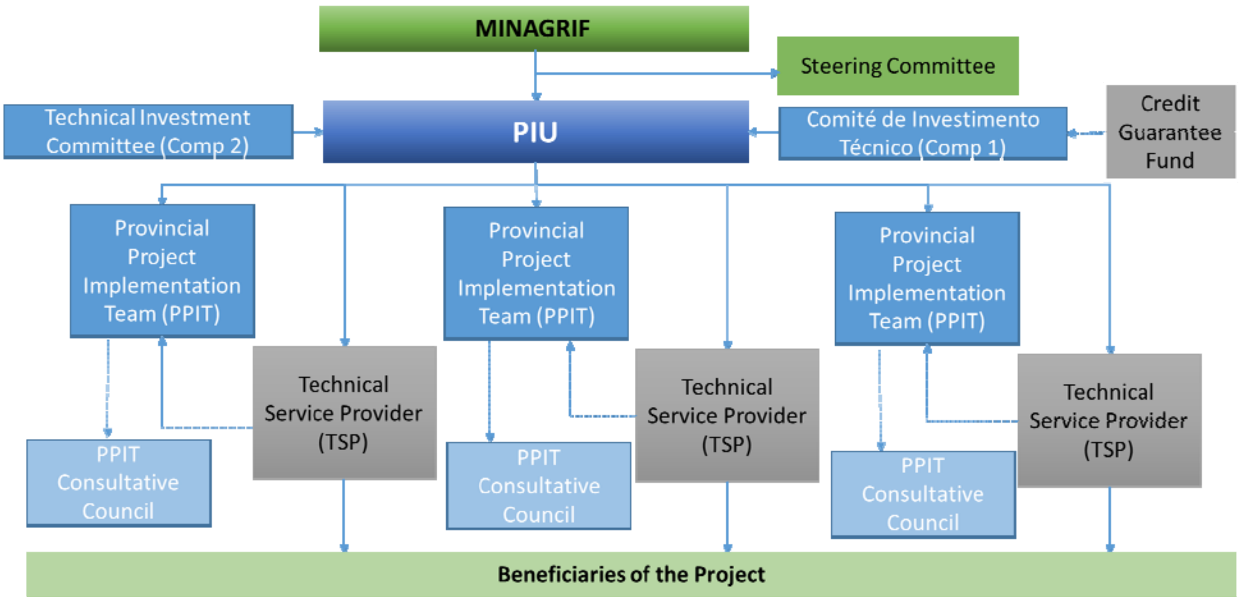
8. **PPIT.** PPITs will supervise and implement the project in each of the selected provinces and be led by the respective PDA in the provincial capitals. The PPIT will be headquartered/based in the Provincial Directorates of Agriculture. The PPIT will have a decentralized team, including a PIU representative and an accountant reporting to the PIU, and be responsible for keeping the PDA informed on the implementation of project activities in the province and help convene the Provincial Consultative Council (in each province), comprising farmer organizations, representatives of the local business community, and representatives of local governments to advise/assist on potential project beneficiaries and investments in infrastructure. Cooperation agreements and meetings will be organized between MINAGRIF and the governments of the selected provinces, to support project implementation. The project will finance the salaries of externally hired staff as well as technical assistance and training, office equipment and vehicles, and operational costs. The project will also finance the costs of periodic financial audits.

9. **Focal points.** Project focal points, representing involved ministries (outside MINAGRIF) and with proven technical capacity in their sector, will facilitate inter-sector coordination and provide specialized knowledge that are not the domain of MINAGRIF and input to project annual reports and activities.

10. **Beneficiary farmers and agribusiness SMEs are** primarily responsible for the implementation of subprojects, financed with Matching Grants and bank loans backed by PCGs, in the context of the

business plans (Component 1). They will contribute to the identification of complementary rural infrastructure (Component 2) through the PPIT Consultative Committee.

Figure 2.1. Institutional Arrangements for the Commercial Agriculture Project



11. **Other stakeholders.** These would include donors (FAO and potentially others), NGOs, financial institutions, research institutions, academia, and the private sector. They would participate in central- and provincial-level strategic discussions, support activities under Component 1 and Component 2, and participate in public-private dialogue platforms and in research and development activities under Component 3.

Technical Assistance

12. The focus of project technical assistance is primarily to support the preparation and implementation of business plans and to strengthen the extension services of MINAGRIF. The technical assistance and the investments included in the business plans are the two main pillars of the project complementing each other to achieve the development objective. The project, through the PIU, will enter into a contractual agreement with a TSP firm to receive specific assistance and guidance on key aspects of project implementation. This service would be complemented on an as-needed basis throughout the project engagement period by the contracting of technical specialists, which might include those of the FAO, given its long engagement in the sector and its presence in the region, as well as its worldwide experience with the agricultural sector. Project-financed technical assistance will support the following:

(a) **Identification, preparation, and implementation of business plans.** Internationally recruited TSP firms, resident in Angola, will help identify and evaluate viable subprojects, prepare business plans, provide technical oversight of their implementation, support applicants for bank loans, and provide technical and business management mentoring. TOR will be prepared before project effectiveness. TSPs will also provide technical support to the commercial banks to evaluate agribusiness subprojects and to the FGC to manage the guarantees.

(b) **High-quality road rehabilitation.** Technical assistance will: (i) support an evaluation of the road maintenance capacity of the three selected (first phase) provincial governments; (ii) support the development of a rural road maintenance strategy for Angola and strengthening of provincial and municipal capacity to maintain project road works; and (iii) help determine the best technologies, as requested by the Government, to ensure the quality and durability of the rehabilitated roads, reducing the costs of their maintenance.

(c) **Technical quality of irrigation works and their management.** This will finance: (i) an analysis of irrigation perimeters in the project area; (ii) strengthening of the capacity of the institution responsible for managing the perimeters; and (iii) design of planned pilots to test new models for the management and maintenance of irrigation perimeters and to improve MSME production and productivity.

(d) **Energy.** Technical assistance will support the: (i) mapping of existing energy access and demand in the project areas, to direct the project investments and match these with project beneficiaries; and (ii) analysis of the potential for off-grid production in project areas that are far from the existing and planned grid extension and featuring a high density of beneficiaries.

(e) **Institutional development and an improved business environment.** Technical assistance will: (i) reinforce MINAGRIF's capacity for planning, management, and the implementation of programs; (ii) help MINAGRIF develop a 'business intelligence' system to process information and data for the agriculture sector; (iii) support land use/ownership planning and development of governance mechanisms; (iv) support studies for the development of an agricultural insurance system and the services and public policy for agro-livestock transport and logistics; and (v) support studies and analyses to develop a strategy for each value chain and facilitate public-private dialogue.

(f) **Technical assistance to PIU for project implementation.** The PIU will receive capacity-building assistance, including from the TSP, to support project implementation technically, operationally, and administratively, and especially to strengthen the PIU's M&E capacity.

Financial Management

13. Progress has been made in improving Public Financial Management (PFM) in recent years as a result of Government commitment in PFM reforms. The country's last formal PFM reform program was for 2002–2004. However, the Government implemented significant PFM reform initiatives in recent years, many of which achieved good results. Progress is noted in a number of areas including the legal

framework; full implementation of the government integrated FM information system (*Sistema Integrado de Gestão Financeira do Estado,* SIGFE); establishment of the Single Treasury Account; availability of budget information to the public; and the audit of the annual consolidated state account (*Conta Geral de Estado*).

14. The Government successfully implemented SIGFE at the central level and in all 18 provinces. The Government's recurrent and investment expenditures are managed through SIGFE. This system has an in-built commitment system which is intended to curb both unapproved expenditures and those beyond approved limits. SIGFE can generate information on funds received and expenditures of all budget units. Furthermore, a number of complementary electronic systems have been developed to improve the management of public funds, such as public investment portfolio (*Sistema Informatizado do Programa de Investimento Público*, SIPIP). This electronic system has been developed by the Ministry of Economy and Planning and it is used to prepare and execute the investment budget; however, it is not fully integrated with SIGFE, which leads to discrepancies between the Ministry of Economy and Planning and MINFIN. However, the Government is working to develop functionalities that can automatically capture both physical and financial execution of projects and allow supplier payments to be linked to evidence of physical progress.

15. Despite a positive trend of change in the overall country PFM, the ongoing reform efforts are not addressing many areas in PFM. The Government commitment to PFM reforms showed positive results; however, more effort is needed in areas such as budget credibility and execution, significant variance between planned budget and actual expenditures, internal controls, coverage of internal control functions by the General Inspectorate of Finance, and strong link between the budget and NDP. In addition, there is a significant lack of recent technical assessments and studies to assess progress to date and inform ongoing and planned reforms. The most recent PFM-related analyses (apart from the annual Economic Update) were the World Bank Public Expenditure Management and Financial Accountability Review (PEMFAR), Country Economic Memorandum, Country Procurement Assessment Report, and Public Expenditure Review, all dating from 2005 through 2007. A public expenditure management and fiduciary systems review based on application of the Public Expenditure and Financial Accountability assessment methodology was conducted by the AfDB and the draft report has been issued.

16. **FM risk assessment.** The World Bank's principal concern is to ensure that the project funds are used economically and efficiently for the intended purpose. Assessment of the risks that the project funds will not be appropriately used is an important part of the FM assessment work. The content of these risks is described in table 2.1.

Table 2.1. Project FM Risk Assessment and Mitigation Measures

Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Conditions for Effectiveness (Yes/No)	Residual Risk
Inherent risk	S	—	—	S
Country level. Progress has been made in reform of the country's PFM over the years; however, these reform efforts are yet to address weaknesses in the budget execution, internal controls, capacity development, and general oversight.	H	The Government of Angola is committed to continue with implementation of PFM reform to improve the control environment country national systems. The PEMFAR is under way.	No	H
Entity level. New PIU established within MINAGRIF and delays in creating necessary capacity may have a negative impact on the project implementation.	S	MINAGRIF has recruited the project senior FM specialist and two accountants will be recruited within two months after the project effective date to ensure appropriate management of the project funds, and the PIU FM capacity will be assessed throughout project implementation and adjusted as necessary.	No	S
Project level. This project will support Matching Grants that will be implemented by a new PIU in a context of weak capacity.	S	Project Financial Procedures Manual will be prepared and adopted by the PIU/MINAGRIF to ensure that adequate project internal control is in place. The Financial Procedures Manual, which will be part of the POM, will document financial and administrative procedures to be employed in the implementation of the project. Separate manuals for Matching Grants and PCGs will be developed.	Yes	S
Control Risk	S			S

Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Conditions for Effectiveness (Yes/No)	Residual Risk
Budgeting. Weak budgetary execution monitoring as the project may failure to prepare a realistic project annual budget due to the complexity of the project (for example, complexity of monitoring Matching Grants as these are based on the demand)	M	The FM Manual will spell out the budgeting and budgetary control arrangements to ensure appropriate budgetary oversight, including clear timeline and responsibilities for budget preparation and monitoring. The IFR will include a comparison of planned and actual project expenditures along with clear analysis/explanation on the budget execution, associated bottlenecks, and solutions. A separate manual for Matching Grants will be prepared and it will document Matching Grants monitoring mechanisms.	No	M
Accounting. The PIU/MINAGRIF may fail to maintain adequate project accounts and records of financial information as the PIU may fail to implement adequate automated accounting software.	S	MINAGRIF has recruited a project senior FM specialist capable of performing her duties and she will be supported by two accountants. An automated accounting software will be purchased and installed within three months after the project effectiveness. The PIU will consult with other PIUs implementing World Bank-financed operations to benefit from their experience in purchase and installation of automated accounting software.	No	S
Internal control. The risk of noncompliance with key internal control procedures due to the complexity in implementing Matching Grants (beneficiaries' selection, collection of contributions) and PCGs to be conducted by a new PIU	S	Financial and administrative procedures to be employed by the PIU/MINAGRIF in project implementation will be documented in the Financial Procedures Manual. Separate manuals will be developed for Matching Grants and PCGs, and this will be a condition of disbursement. The World Bank's regular FM implementation support through desk reviews and field visits will make appropriate recommendations to improve the project FM environment.	No	S

Risk	Risk Rating	Risk Mitigating Measures Incorporated into Project Design	Conditions for Effectiveness (Yes/No)	Residual Risk
Funds flow. The failure by commercial banks to make payments in foreign currency may negatively affect implementation of project activities, in particular the implementation of Matching Grants.	S	The project will make use of all available disbursement methods, especially direct payments as an interim solution to mitigate the challenges of commercial banks in making international bank transfers.	No	S
Financial reporting. The PIU may fail to implement an adequate accounting system capable of producing required reports to monitor and manage the project.	M	The PIU/MINAGRI will use an automated accounting system that will enable the efficient and timely generation of financial information.	No	M
Auditing. Delays in submission of audit reports due to the delays in selection of the project external auditors	M	An independent external audit firm will be hired by the project to ensure compliance with the audit submission timelines set out in the Loan Agreement. The World Bank will monitor audit submission compliance and ensure implementation of Management Letter recommendations.	No	M
OVERALL FM RISK	**S**	—	—	**S**

Note: M = Moderate; S = Substantial; H = High.

17. **The overall residual FM risk rating is deemed Substantial** as the proposed project arrangements are still being implemented (accounting staff and systems, internal control procedures, and project external auditors). The mitigations measures include: (a) appointment of two qualified and experienced project accountants; (b) adoption of project DM Manual; (c) adoption of separate manuals for the Matching Grants and guarantee; (d) purchase and installation of automated accounting software within three months after the effective date; and (d) appointment of a project external auditor within four months after the effective date.

18. **FM action plan.** To establish an acceptable control environment and to mitigate FM risks, the following measures should be taken by the due dates indicated in the FM action plan in table 2.2.

Table 2.2. FM Action Plan

Sl. No.	Action	Responsibility	Completion Date
1	Appointment of two qualified and experienced project accountants	PIU/MINAGRIF	No later than two months after project effectiveness
2	Preparation and adoption of project FM Manual acceptable in form and substance to the World Bank	PIU/MINAGRIF	Within three months after effectiveness

Sl. No.	Action	Responsibility	Completion Date
3	Preparation of separate manuals for Matching Grants and PCGs. The Matching Grants manuals should document simplified accounting and reports tools for the subprojects.	PIU/MINAGRIF	Condition of disbursement of Matching Grants and PCG
4	Purchase and installation of automated accounting software for the project	PIU/MINAGRIF	Within three months after effectiveness
5	Appointment of the project external auditors	PIU/MINAGRIF	No later than four months after effectiveness
6	Appointment of the project internal auditor	PIU/MINAGRIF	No later than six months after effectiveness

Financial Management Arrangements

19. **Budget.** The PIU established under MINAGRIF will have overall responsibility for preparing annual work plans and budget. The annual budgets will be prepared based on the annual work plans and the approved Procurement Plan. The procedures for preparation of annual work plans and budget and monitoring of budget execution will be documented in the Financial Procedures Manual. It is expected that the PIU will prepare annual budgets that cover activities proposed to be carried out in each fiscal year. The project will also be responsible for producing variance analysis reports comparing planned with actual expenditures on a quarterly basis. The periodic variance analysis will enable the timely identification of deviations from the budget. These quarterly variance analysis reports will be part of the IFRs that will be submitted to the World Bank on a quarterly basis.

20. **Staffing.** The PIU will be responsible for fiduciary aspects of the project. The PIU FM capacity will comprise a project senior FM specialist and two project accountants. One of the accountants will be dedicated to Matching Grants. The overall responsibility of project FM matters rests with the project senior FM specialist reporting to the PIU coordinator. The project senior FM specialist has been recruited through a competitive process. The two project accountants should be recruited within two months after project effectiveness. The fees of the project FM specialist and the two project accountants will be funded by the project proceeds. The PIU FM capacity will be assessed throughout project implementation and adjusted as necessary. The PCG's fiduciary matters will be handled by the FGC, which will appoint qualified and experienced finance staff for this purpose.

21. **Accounting.** The implementing agency will account for all project funds, expenditures, and resources using an automated accounting software in accordance with Financial Reporting under Cash Basis of Accounting. The computerized accounting package will be purchased and installed within three months after the effectiveness date. It should be a sound computerized accounting software that enables key controls, records project transactions correctly, and can produce timely and reliable financial information required to monitor and effectively manage project progress.

22. **Internal control.** The finance and administrative procedures to be employed to implement the project will be documented in the project Financial Procedures Manual to be finalized and adopted no later than three months after effectiveness. This manual will cover at least the following aspects: institutional arrangements, budget and budgetary control, disbursement procedures and banking arrangements, receipt of goods and payment of invoices, internal control procedures, accounting

system and transaction records, reporting requirement, and audit arrangement. Separate manuals for Matching Grants and PCGs will be developed. The Matching Grants manual will document, among other procedures, the beneficiaries' selection, funds flow, simplified accounting and reporting, governance, and monitoring mechanism.

23. **The Inspectorate General of Finance** (*Inspecção Geral das Finanças*), based at MINFIN, is responsible for the internal audit functions across the entire government. However, the Inspectorate General of Finance has limited capacity, and therefore, the project may not benefit from its review of this operation. Capacity building of the Inspector General of Finance appears to be a key measure required for it to play its control role over World Bank-financed operations in Angola and more generally for the entire government. Opportunities for such support will be sought with future World Bank governance operations. Hence, a project internal auditor will be recruited to help the PIU/MINAGRIF management accomplish project objectives. The project's internal auditors will advise on the adequacy of project internal controls systems at the central and provincial levels. The project's internal auditors will conduct reviews of project transactions, including the ex post review of Matching Grants and PCGs. The role of the project's internal auditors will also include following up on implementation of appropriate actions to improve effectiveness of risk management, control, and governance processes at all levels and development capacity. The project internal auditor will need to produce, in the first three months of the assignment, a risk matrix, an audit plan, and an audit chart and should be appointed within six months after the effective date.

24. **Financial reporting.** The PIU will prepare quarterly IFRs for the project (covering all project funds and expenditures, including Matching Grants and PCGs), in form and content satisfactory to the World Bank. The IFRs will be submitted to the World Bank within 45 days after the end of the calendar quarter to which they relate. These reports should provide financial information required to effectively monitor and manage the project. These reports should include data on all sources and uses of funds by project components and categories and uses of funds by project components and activities (including comparison of budget and actual expenditures). The PIU under MINAGRIF will work in collaboration with the FGC to ensure that the financial information related to PCGs is included in the IFRs.

25. At the end of each fiscal year, the PIU will also produce annual project financial statements (covering all project funds and expenditures, including Matching Grants and PCGs) in accordance with Financial Reporting under Cash Basis of Accounting, which will comprise:

(a) A statement of sources and uses of funds/cash receipts and payments, which recognizes all cash receipts, cash payments, and cash balances controlled by the entity for this project and separately identifies payments by third parties on behalf of the agency;

(b) The statement of uses of funds by project components and activities, including comparison of budget and actual project expenditures;

(c) The accounting policies adopted and explanatory notes. The explanatory notes should be presented in a systematic manner with items on statement of cash receipts and payments being cross-referenced to any related information in the notes. Examples of this information include a summary of fixed assets by category of assets; and

(d) A management assertion that IBRD funds have been expended in accordance with the intended purposes as specified in the relevant World Bank Legal Agreement.

Disbursements

26. **Funds flow and disbursement arrangements.** The project's eligible expenditures will be co-financed *pari-passu* by IBRD and AFD. However, the AFD will not finance Subcomponent 1.2 (PCG) or Subcomponent 2.3 ('last-mile' rural electricity connections). To facilitate the implementation of the project activities, the PIU under MINAGRIF will establish and maintain two segregated Designated Accounts (DAs), one offshore and another in Angola, to receive advances of funds from IBRD, in euros, at a commercial bank under terms and conditions acceptable to the World Bank. Funds in the DAs will be used to finance eligible project expenditures in accordance with the Loan Agreement and Disbursement and Financial Information Letter. In addition, the PIU will establish and maintain a Dedicated Account to receive advances of funds from AFD, in euros, at a commercial bank under terms and conditions outlined in the co-financing agreement.

27. To finance PCGs, the GoA may request the Bank to credit directly the PCG Fund Account to be capitalized or funds from the offshore Dedicated Account may be used for the purpose. A separate agreement will be signed between MINFIN and FGC defining the roles and responsibilities for the use of these funds.

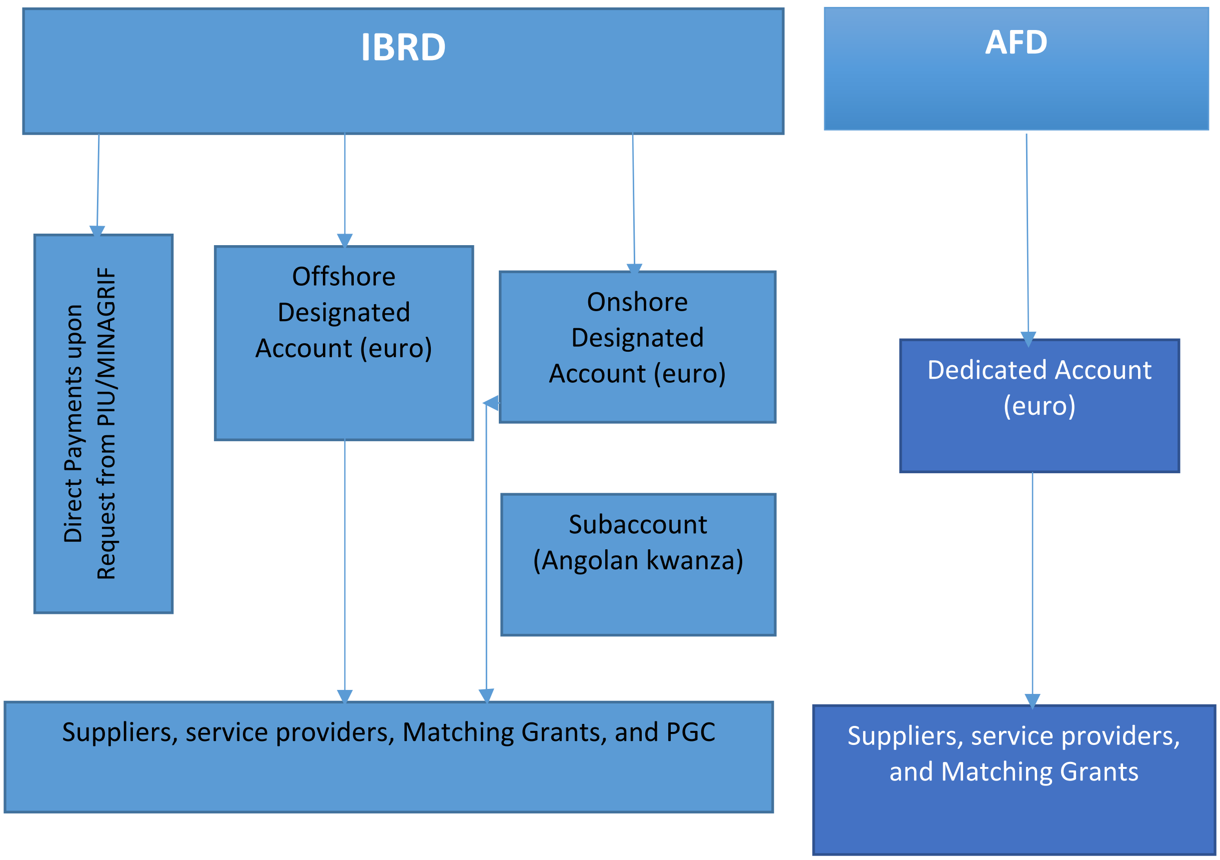
28. **Disbursement of IBRD funds** will be done on a transaction basis (SOEs). At project effectiveness, an initial advance up to the DA ceiling (to be indicated in the Disbursement and Financial Information Letter) will be made into a project DA. Subsequent advances will be made upon receiving applications supported with SOEs reporting on the use of previous advances for eligible expenditures. The option of disbursing the funds through direct payments from IBRD for payments above the threshold, as indicated in the Disbursement Letter and Financial Information, will be available. Options for the use of special commitments and reimbursements will also be available. The Disbursement Guidelines for Investment Project Financing (issued in February 2017) provide guidance on disbursement arrangements for financing provided or administered by the World Bank. The World Bank will issue the Disbursement and Financial Information Letter that will specify additional instructions for withdrawal of the proceeds of the loan.

29. Disbursements of AFD funds will be made in accordance with the World Bank's applicable disbursement guidelines and policies and specific instructions to be included in the Disbursement Letter (DL). The disbursement of AFD funds will be made through advances, direct payments, and reimbursements; these methods will be stated in the DL. AFD will not finance project expenditures related to a contract with a contractor, supplier of goods and services, or consultant who is on any of the EU, UN, or French financial sanctions lists. It authorizes the World Bank to issue a DL (in consultation with this agency) that will provide specific instructions to the borrower for disbursement in accordance with the respective Financing Agreement. The borrower will be required to submit a withdrawal application and copies of the supporting documents to the World Bank in accordance with terms and conditions to be outlined in the DL, as well as a signed hard copy of the withdrawal application and supporting documents to AFD. The World Bank will review each withdrawal application in accordance with applicable guidelines and procedures to verify that the amount requested by the borrower is in accordance with the respective Financing Agreements and advise AFD through a drawdown order to

make payments, subject to approval by AFD. If AFD does not approve the payment requested in the withdrawal application, it will promptly inform the World Bank and the borrower, in writing, of its decision and the basis for such decision.

30. Figure 2.2 depicts the funds flow mechanism for the activities to be financed by the project proceeds.

Figure 2.2. Flow of Funds Mechanism



31. **Auditing.** The project single set of financial statements (covering all project funds and expenditures), including Matching Grants and PCGs, will be audited annually in accordance with International Standards on Auditing as promulgated by the International Federation of Accountants by independent auditors acceptable to the World Bank. The audit report together with a Management Letter will be submitted to IBRD within six months after the financial year-end, that is, June 30 of each following year. The costs incurred for the audit will be financed under the project. The auditors will be required to express a single opinion on the project financial statements and a specific opinion on the implementation of the Matching Grants and the PCGs. In addition, a detailed Management Letter containing the auditor's assessment of the internal controls, accounting system, and compliance with financial covenants in the Financing Agreement, suggestions for improvement, and management's response to the auditor's Management Letter will be prepared. The arrangements for the appointment of the external auditors of the project financial statements will be communicated to the World Bank and AFD through agreed TOR. The TOR of the project's external auditor will be finalized following effectiveness to enable the commencement of the procurement of external audit services, and this

should be completed within four months after the project effective date. The project will comply with the World Bank disclosure policy on audit reports (for example, make publicly available, promptly after receipt of all final financial audit reports [including qualified audit reports] and place the information provided on the official website within one month of the report being accepted as final by the World Bank).

32. **Effectiveness condition.** There are no FM conditions of effectiveness for this proposed project.

33. **Disbursement conditions.** Separate manuals for Matching Grants and PCGs will be developed and adopted before the respective disbursements.

34. **Dated covenants.** The following are FM dated covenants: (a) appoint two experienced and qualified accountants within two months after the project effective date; (b) purchase and install an automated accounting software for the project; (c) appoint project external auditors within four months after the project effective date; and (d) appoint a project internal auditor within six months after the project effective date.

35. **ISP for FM.** The project will be supervised on a risk-based approach. The FM supervision will be carried out by the World Bank FM specialist. These supervisions will focus on the status of the FM system to verify whether the PIU/MINAGRIF continue to maintain acceptable project FM arrangements and provide support where needed. The FM supervision missions will also include: (a) a review of quarterly progress reports; (b) review of project audited financial statements and the Management Letter; (c) follow-up on material accountability and implementation of auditor's recommendation; and (d) follow-up on status of implementation of agreed FM action plan. Based on the assessment, the FM risk rating is Substantial and field visit supervision will be conducted at least twice during the fiscal year and adjusted throughout project implementation.

36. **Conclusion of the FM assessment.** The overall FM residual risk is considered Substantial. The proposed FM arrangements for this project are considered adequate and satisfy the World Bank's minimum FM requirements under the World Bank Policy and Directive for Investment Project Financing.

Table 2.3. Allocation of Loan Proceeds

Category	Amount of the Loan Allocated (expressed in euros)	Percentage of Expenditures to Be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, Training and Matching Grants under Part 1.1. of the Project	33,000,000	75.00
(2) First Capitalization of the FGC under Part 1.2. of the Project	5,000,000	100.00
(3) Second Capitalization of the FGC under Part 1.2. of the Project	5,000,000	100.00
(4) Third Capitalization of the FGC under Part 1.2. of the Project	5,000,000	100.00
(5) Fourth Capitalization of the FGC under Part 1.2. of the Project	5,000,000	100.00

Category	Amount of the Loan Allocated (expressed in euros)	Percentage of Expenditures to Be Financed (inclusive of Taxes)
(6) Goods, works, non-consulting services, consulting services, Training under Parts 2.1. and 2.2. of the Project	20,000,000	33.33
(7) Goods, works, non-consulting services, Training under Part 2.3. of the Project	13,186,250	100.00
(8) Consulting services under Part 2.3. of the Project	1,000,000	100.00
(9) Goods, non-consulting services, consulting services, and Training under Part 3.1. and 3.2. of the Project	6,000,000	25.00
(10) Goods, non-consulting services, Training and Incremental Operating Costs for Parts 3.3. and 4 of the Project	10,000,000	50.00
(11) Front-end Fee	263,750	Amount payable pursuant to Section 2.03 of this Agreement in accordance with Section 2.07 (b) of the General Conditions
(12) Refund of the Preparation Advance	2,050,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions
(13) Interest Rate Cap or Interest Rate Collar premium	0	Amount due pursuant to Section 4.05 (c) of the General Conditions
TOTAL AMOUNT	**105,500,000**	

Procurement

37. **Applicable procedures.** The borrower will carry out procurement under the proposed project in accordance with the World Bank's 'Procurement Regulations for IPF Borrowers' (Procurement Regulations) dated July 2016 and revised in November 2017 under the New Procurement Framework (NPF); the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated July 1, 2016; and other provisions stipulated in the Financing Agreements. The project will have co-financing from AFD. The World Bank and AFD will sign a project agreement, based on the framework agreement, in which the parties will agree that the World Bank procurement framework will apply for the execution of the project, on the terms established in such agreement(s) and bidding documents will be amended to reflect the role of AFD as co-financier.

38. **Procurement strategy.** Works for rehabilitation of rural roads will be split by provinces considering that they are spread out in large areas. Request for bids in open international competition will be the procurement method. For the rehabilitation of irrigation infrastructure, two packages are expected using the open international competition method. Most procurement of goods will be through the request for quotation method, although the procurement of vehicles will be done through a UN agency. Selection of consultants (firms) to support the implementation of the components will be mainly done through short lists and the Quality and Cost-Based Selection method. Individual consultants for the

PIU and to support implementation of the project will be done through the Individual Consultant selection method. Procurement arrangements under the Matching Grants subcomponent will be defined in specific operations manual. The funds for the Matching Grants will flow directly to the selected beneficiaries and will not entail any procurement activity using the World Bank Procurement Regulations but mechanisms detailed in the Matching Grants Operations Manual. However, for business plans that include equipment to be procured from international markets, a mechanism of framework contracts will be put in place for major and most common equipment (for instance, but not limited to, tractors, machinery, irrigation equipment). Procurement in such cases may be managed by the PIU, if so agreed with the Matching Grants beneficiaries, using the World Bank Procurement Regulations provisions.

39. **Procurement arrangements.** E. The PIU's responsibilities will include procurement and its procurement team, which will include a senior international procurement specialist supported by a procurement assistant. While procurement procedures and oversight will follow the World Bank Procurement Regulations, bidding documents and/or proposals, documents, and procurement notices will be harmonized and/or amended to reflect the role of AFD as co-financier. Furthermore, AFD will not finance its respective part of a contract to a bidder or a consultant who is on any of the UN, EU, and French financial and commercial sanctions lists; appropriate language will be included in relevant procurement notices.

40. **Procedures for selection of consultants.** Open competition using the Quality and Cost-Based Selection method will be the approach for almost all selection of consulting firms, for instance: (a) design and supervision for rural roads rehabilitation (estimated at EUR 3,084,000); (b) technical assistance for capacity building MINAGRIF/GEPE (TSP 1: subsector strategy and planning) (estimated at EUR 1,623,000); (c) technical assistance for capacity building of INHIA (TSP 1: updating and implementation of Plan Irriga and TSP 2: schemes management) (estimated at EUR 4,180,000); (d) technical assistance for capacity building business plan preparation and implementation for Corridor A (estimated at EUR 4,058,000); (e) technical assistance for capacity building business plan preparation and implementation for Corridor B (estimated at EUR 4,058,000); (f) consultant services for value chain development initiatives in four value chains (each initiative will define a strategic action plan) (estimated at EUR 1,950,000); (g) technical assistance for land use planning and governance mechanisms (estimated at EUR 1,623,000); (h) technical assistance to banks and FGC (estimated at EUR 609,000); and (i) technical assistance for capacity building in research and development (estimated at EUR 405,000), among others. The selection of auditors will be through open competition using the Least-Cost Selection method. The project will require several individual consultants for the PIU and other activities, who will be selected through the Individual Consultant selection method.

41. **Procedures for goods, non-consulting services, and works.** Works for: (a) rehabilitation and 2-year maintenance of rural roads (Kwanza-Sul) Package 1 and 2 (estimated at EUR 15,400,000 each); and (b) rehabilitation and 2-year maintenance of rural roads (Kwanza Norte and Malanje) (estimated at EUR 5,700,000) will be procured using open competition through international market approach. Works for (a) rehabilitation of irrigation infrastructure (Kwanza Norte and Malanje) - Works Package 1 (estimated at EUR 1,200,000) and (b) rehabilitation of irrigation infrastructure (Kwanza-Sul) - Works Package 2 (estimated at EUR 406,000) will be procured using open competition through national market approach. Procurement of goods (IT equipment, communication, furniture, accounting software, and other office supplies), estimated to cost less than EUR 81,000 per contract, will be procured through the Request for

Quotations (RfQ) method. The purchase of vehicles for the project, estimated at EUR 65,000, will be procured through UN agencies.

42. **The Procurement Plan** will be managed through the World Bank's tracking system, Systematic Tracking of Exchanges in Procurement (STEP).

43. **Review by the World Bank of procurement decisions.** Table 2.4 indicates the initial values for prior review by the World Bank. All activities estimated to cost below these amounts shall be treated as post review and will be reviewed by the World Bank during the implementation support mission under a post procurement review exercise. Direct Contracting/Single Source procurement will be subject to prior review only above the amounts given in table 2.4. The World Bank may, from time to time, review the amounts based on the performance of the implementing agencies.

Table 2.4. Prior Review Thresholds

Procurement Type	Prior Review (US$ equivalent)
Works	5,000,000
Goods and Non-Consulting Services	1,500,000
Consultants (Firms)	500,000
Individual Consultants	200,000

44. **Assessment of national procedures.** The Angola Procurement Regulation, Law No. 9/16 of June 16, has been assessed as required under the World Bank's Procurement Framework. The assessment indicated that the country's regulations are generally consistent with international best practice, although some weaknesses were identified, which should be mitigated with adequate measures: (a) there is adequate advertising in national media; (b) procurement is generally open to eligible firms from any country; (c) contract documents have an appropriate allocation of responsibilities, risks, and liabilities; (d) publication of contract award is generally not done (but the PIU of the project has a good record of contract publications); (e) the national regulations do not preclude the World Bank from its rights to review procurement documentation and activities under the financing; (f) claims are decided at the procuring entity level for administrative complaints but there is possibility of appeal to the court; and (g) maintenance of records of the procurement process needs improvement overall but the PIU for the project will put in place an adequate filing system of procurement processes as provided in the POM.

45. The request for bids/request for proposals document shall require that bidders/proposers submitting bids/proposals present a signed acceptance at the time of bidding, to be incorporated in any resulting contracts, confirming application of, and compliance with, the World Bank's Anti-Corruption Guidelines, including without limitation, the World Bank's right to sanction and the World Bank's inspection and audit rights.

46. With the incorporation of the above provision, the Angola Procurement Regulation will be acceptable to be used under those procurements not subject to the World Bank's prior review,

according to the thresholds indicated in table 2.4, or any updates indicated by the World Bank in the Procurement Plan.

Environmental and Social (including safeguards)

47. The proposed activities under the CADP are expected to generate mostly positive environmental and socioeconomic impacts such as improvements in environmental conditions; strengthened government departments, civil society, and subproject proponents' capacity for environmental management; improved skills for most farmers and better land management practices; increased environmental awareness among different actors; increased agricultural productivity and employment creation; better planning for solid and wastewater management; improved soil and water conservation techniques; and increased opportunities for income generation and development.

48. Although most project impacts are expected to be positive, some of the proposed CADP subprojects could generate negative environmental and social impacts during their implementation, such as increased use of agro-chemicals due to agricultural intensification; localized increase in soil erosion during the construction phase, which could cause temporary increases in sediment loads into water bodies; loss of access (temporary or permanent) to natural resources; loss of land due to construction of infrastructure; temporary noise and air pollution nuisance due to construction works; worker's safety risks; child labor abuse; and population influx to project target areas with all associated social risk and overexploitation of water resources. These and other impacts are detailed in the ESMF, including mitigation measures.

Social

49. A social development specialist will be contracted to help the PIU: (a) provide social development expertise, including providing inputs for project documents and reports and participating in project-related meetings and implementation support missions; (b) improve the social development outcomes of the project by facilitating the citizen engagement and public participation processes and ensuring that the gender and youth aspects included in the project design are adequately addressed during implementation; and (c) build long-term capacity in MINAGRI in the preparation and supervision of social safeguards measures and instruments.

50. Working closely with the environmental specialist, the social development specialist will:

(a) Supervise the preparation and implementation of the social development and safeguard measures outlined in the project documents, including the ESMF, RPF, PMP, and related action plans. The social development specialist will be responsible, in collaboration with the other members of the PIU including the project coordinator, for ensuring full compliance with the World Bank's Operational Policies triggered by the project as well as applicable national legislation. This includes screening of subprojects for any negative impact, preparation of action plans when required, implementation of action plans, and evaluation of action plans and the documentation required for all the above;

(b) Supervise the implementation of the project's GRM. This includes active monitoring of any complaints received, technical assistance for the resolution of any complaints, and regular reporting to the PIU and the World Bank;

(c) Provide leadership and technical assistance for the planning and implementation of any public participation and consultation processes required for the preparation and implementation of the safeguard instruments referenced above. This includes active participation in the events as well as the preparation of reports;

(d) Review and provide social development and safeguard inputs for the project's annual work plan. This may include preparing budgets and defining timelines for the preparation of RAPs, implementation of the communication plans, and implementation of the GRM;

(e) Participate in ESIAs for the subprojects when required and as defined in the ESMF prepared for the project. This includes providing technical assistance regarding social development and safeguards for the entire process, from screening to monitoring the implementation of mitigation measures;

(f) Monitor compliance with the child labor clauses included in the ESMF and the environmental and social clauses for the project. Information regarding the prohibition of child labor should also be included in the communication strategy;

(g) Prepare and implement a social communication strategy for the project. This strategy should include innovative and accessible information regarding project activities, gender, child labor, and other issues determined to be important for local communities in the project area;

(h) Undertake regular field visits to project sites to monitor compliance with the social development and safeguard measures and to identify gaps that need to be addressed. Reports of the field visits should be included in the regular project reports;

(i) Prepare and implement regular capacity building sessions for the other members of the PIU (both central and regional) as well as project beneficiaries. Possible topics may include safeguards, social development, worker health and safety, gender, child labor, and the GRM;

(j) Actively participate in implementation support missions with the World Bank and provide timely and concise reports on the status of safeguards compliance and implementation and GRM; and

(k) Carry out any other activities as requested by the project coordinator and/or MINAGRI that are related to social development and social safeguards.

Environment

51. The ESMF requires that each business plan in support of each subproject agreement must include environmental management procedures proportional to the subproject's environmental risks.

52. The PIU will contract an environmental specialist responsible for the following: (a) providing environmental management expertise to the PIU, which will include providing inputs project documents and subprojects' screening, monitoring, and reports and participating in project-related meetings and implementation support missions; (b) strengthening the PIU capacity in the implementation of the environmental safeguards polices and applicable national regulations and ensuring that the project's likely environmental impacts are well managed during implementation; and (c) building long-term capacity in MINAGRI in the preparation and supervision of environmental safeguards measures and instruments.

53. Working closely with the social development specialist, the environmental specialist will:

(a) Supervise the preparation and implementation of the ESMPs, ESIAs, and safeguard measures outlined in the project documents including the ESMF, RPF, PMP, and related action plans. The environmental specialist is responsible, in collaboration with the other members of the PIU including the project coordinator, for ensuring full compliance with the World Bank's Operational Policies triggered by the project as well as applicable national legislation. This includes screening of subprojects for any negative impact, preparation of ESMP/ESIA when required, implementation of action plans, and evaluation of action plans and the documentation required for all the above;

(b) Supervise the implementation of the project's GRM. This includes active monitoring of any complaints received, technical assistance for the resolution of any complaints, and regular reporting to the PIU and the World Bank;

(c) Provide leadership and technical assistance for the planning and implementation of any public participation and consultation processes required for the preparation and implementation of the safeguard instruments referenced above. This includes active participation in the events as well as the preparation of reports;

(d) Review and provide environmental safeguard inputs for the project's annual work plan. This may include preparing budgets and defining timelines for the preparation of ESMP/ESIA, implementation of the communication plans, and the implementation of the GRM;

(e) Participate in the ESIA for the subprojects when required and as defined in the ESMF prepared for the project. This includes providing technical assistance regarding environmental safeguards for the entire process, from screening to monitoring the implementation of mitigation measures;

(f) Monitor compliance with the child labor clauses included in the ESMF and the environmental and social clauses for the project. Information regarding the prohibition of child labor should also be included in the communication strategy;

(g) Develop and submit for approval a matrix framework of Environmental Safeguard M&E System applied to the project to be in line with the project's overall M&E system;

(h) Undertake regular field visits to project sites to monitor compliance with the environmental safeguard measures and to identify gaps that need to be addressed. Reports of the field visits should be included in the regular project reports;

(i) Ensure environmental, health, and safety enhancement requirements of procurement/tender documents are in place (for example, Environmental Policy, Code of Conduct, ESIA/ESMP);

(j) Ensure implementation of environmental requirements included in all construction firms' contracts (that is, respect of basic safeguards measures on construction sites such as safety precautions and security perimeter for neighboring communities) and to confirm payment of compensations and movement of affected persons from the site before commencement of project works;

(k) Prepare and implement regular capacity-building sessions for the other members of the PIU (both central and regional) as well as project beneficiaries. Possible topics may include safeguards, waste management, air emission, water quality, erosion control, health and safety, and the GRM;

(l) Recommend measures for management of solid wastes, effluents, wastewater, hazardous substances, and emissions; promote efficient use of soil, water, and energy (prioritizing the use of renewable energy);

(m) Actively participate in implementation support missions with the World Bank and provide timely and concise reports on the status of safeguards compliance and implementation and GRM;

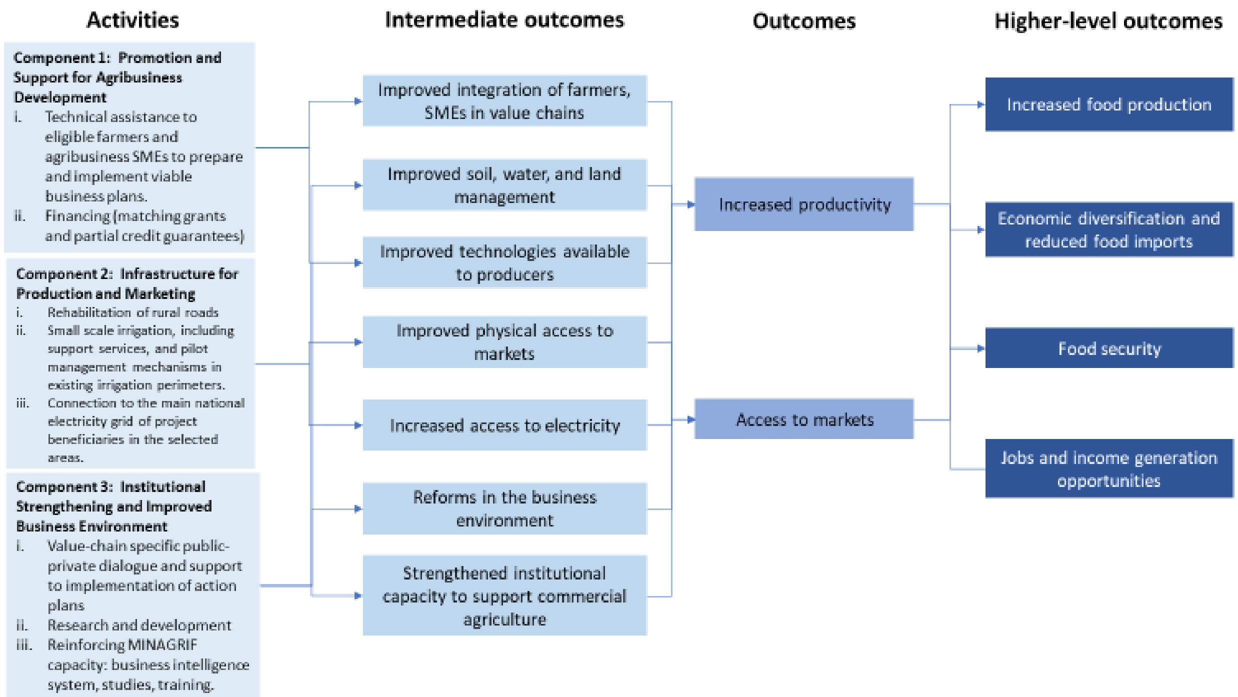
(n) Liaise with the Ministry of Environment to ensure speedy delivery of the environmental licenses for subprojects; and

(o) Carry out any other activities as requested by the project coordinator and/or MINAGRI that are related to environmental safeguards.

Monitoring and Evaluation

54. **The PIU will establish an M&E system** to track the technical, operational, financial, social, and environmental progress and results of the project. This M&E system will monitor project performance with respect to a baseline situation (where relevant) by tracking inputs, outputs, and progress toward the PDO and intermediate results indicators. The PIU will establish—with technical assistance—an MIS as the basis for continuous evaluation enabling the design and execution of operational adjustments during implementation, promoting accountability for resource use against objectives, providing and receiving stakeholders' feedback, and generating inputs for the dissemination of results and lessons. The anticipated outcome of this approach is the ability to continuously quantify the PDO and intermediate results indicators in the Results Framework and to be able to report these in project supervision Implementation Status and Results Reports (see Results Framework and Monitoring). Figure 2.3 presents the project's Theory of Change.

Figure 2.3 CADP Theory of Change



55. **Evaluation.** A framework for the M&E of project outcomes and results will be developed and is expected to be prepared by the end of project year one. It specifies the data collection methodology, reporting responsibilities, and frequency of M&E activities. The regular management of the M&E framework is critical to ensure timely and successful implementation of the project and to enhance its impact for the beneficiaries by the systematic and periodic analysis of lessons learned and their effective dissemination. Performance indicators, baseline, and targets are presented in the Results Framework and Monitoring. The project M&E system will include baseline data and performance (milestones) indicators to monitor progress with implementation. Project evaluation will be based on annual periodic reports and Project Monitoring Reports prepared by the PIU.

56. To ensure that M&E activities are an integral part of project management activities, specific attention will be given to: (a) early involvement of executors and beneficiaries of the project in M&E activities; (b) data collection arrangements, including data sources and the reliability of the information provided and associated costs and responsibilities; and (c) human (both beneficiary and staff) and institutional capacity building, including extent of the central PIU and its territorial units' capacity for M&E, the need for capacity building, and the associated costs.

57. The PIU will be responsible for conducting an MTR study about three years after effectiveness. Results will allow for technical or design adjustments, if warranted. Moreover, the PIU will also conduct a final evaluation at project completion using appropriate methodologies for measuring—to the extent possible—the impact of project investments on beneficiary groups, comparing their status at project conclusion with the without-project situation. The evaluation strategy will consider differences in the state of knowledge as well as data generation capabilities, to measure outputs and impacts, and to

measure effectiveness and efficiency while controlling for other factors which might change over time. The evaluation effort will also contemplate producers' behavior change (adoption and use of new technologies, including climate smart) and attempt to gauge/assess behavior change of credit agencies/banks and stakeholders on the demand side and will also focus on final market access and competitiveness questions. The use of case studies is envisaged, where appropriate.

58. With the support of external consultants, the PIU will conduct a limited scope but rigorous impact evaluation of the project. The key variables to be assessed will be determined during the baseline preparation. The evaluation will help separate out the influence of external factors (for example, international market prices) which are not attributable to the project itself. This analysis of impacts will be disaggregated by gender.

Role of Partners (if applicable)

59. **Joint co-financing** by AFD was approved in September 2017 and a project-specific Co-financing Agreement between the World Bank and AFD will be prepared prior to effectiveness, based on the project requirements and agreements, as well as on the agreement framework umbrella between the World Bank and AFD.

ANNEX 3: IMPLEMENTATION SUPPORT PLAN

Angola: Commercial Agriculture Development Project

Strategy and Approach for Implementation Support

1. Implementation support for the project will focus on the functions and activities typically monitored by the World Bank and AFD task teams during supervision and implementation support missions, including monitoring of technical activities, management functions and fiduciary aspects (administration/accounting, FM, procurement), and compliance with safeguards policies. In addition, special attention will be directed to ensuring the timely implementation of the risk mitigation measures identified in the Systematic Operations Risk-Rating Tool (SORT) matrix. The Implementation Support Strategy is flexible and is likely to be amended during implementation in response to the evolving needs of the project, including changes in the institutional, environmental, or economic contexts.

2. The Implementation Support Strategy includes the following main elements:

(a) World Bank implementation support will begin immediately after Board approval, to help the borrower achieve effectiveness in a timely manner and formally establish the PIU in the line ministry (MINAGRIF) and recruit additional key staff to strengthen its administrative, operational, and technical capacity. The frequency of supervision missions is likely to be higher in the first year (up to three per year) to closely monitor the launch of the project, possibly decreasing to the usual two missions per year after the project reaches a strong implementation pace. However, given the importance of this project to the sector and its complexity, the frequency of supervision may generally be higher based on circumstances and the operating environment.

(b) Given the limited experience with World Bank operations, training will be provided early on to staff in the PIU. In addition to carrying out their usual implementation support functions, World Bank fiduciary and safeguards specialists will be available to provide close support and detailed, hands-on guidance to their counterparts during the initial months following effectiveness and thereafter as circumstances demand.

(c) The Implementation Support Strategy will be reviewed regularly, considering implementation progress and continuous risk assessment.

3. **Technical support.** The project will support a wide range of activities designed to strengthen the capacity of the national implementing and coordinating agencies (see Annex 2) to be able to perform their roles effectively. The World Bank/AFD task team will include technical specialists with expertise in a range of areas, drawn from within the institution and from specialized consultants with expertise in other relevant areas, as necessary. Field visits will focus on verifying compliance with the policies and

procedures spelled out in the POM, identifying bottlenecks that may be impeding implementation progress, and offering recommendations designed to overcome those bottlenecks.

4. **Fiduciary aspects.** World Bank fiduciary specialists will provide early procurement and FM support to the PIU. The World Bank Procurement Specialist and FM Specialist assigned to the project, in addition to joining regular implementation support missions, will be available to meet with counterparts in the PIU to provide hands-on support to avoid initial delays in submitting withdrawal applications, performing FM activities, and processing procurement requests in accordance with World Bank policies and the POM.

5. **Safeguard compliance.** Environmental and social safeguards reviews will be carried out as part of every implementation support mission, that is, twice per year on average, by the World Bank Environmental and Social Safeguards Specialists. Specialists, knowledgeable in World Bank procedures and safeguards, will be hired by the PIU to support implementation. The World Bank safeguards staff will work with these specialists to review the documents produced and provide additional on-the-job capacity building to the PIU staff.

Implementation Support Plan and Resource Requirements

Time	Focus	Skills Needed	Resource Estimate	Partner Role
First 12 months	• Project launching • Establishment/strengthening of PIU • Setting up fiduciary processes • Setting up monitoring systems • Hiring and training staff • Hiring technical assistance providers	• Team leaders • Procurement • Financial management • Environmental specialist • Social specialist • Agribusiness specialist • Financial sector specialist • Transport specialist • Irrigation specialist • Energy specialist • Value chain/competitiveness specialists • Communications • Team assistant	Three supervision missions and intensive monitoring from World Bank regional and HQ specialists; other technical specialists as needed	AFD will participate in project supervision as agreed in the World Bank/AFD project-specific agreement.
12-48 months	• Project implementation • Monitoring • Reporting	• Team leaders • Procurement • Financial management • Environmental specialist • Social specialist	Two supervision missions and intensive monitoring from World Bank regional and HQ specialists;	AFD will participate in project supervision as agreed in the World Bank/AFD

Time	Focus	Skills Needed	Resource Estimate	Partner Role
		• Agribusiness • Financial sector specialist • Transport specialist • Irrigation specialist • Energy specialist • Value chain specialists • Team assistant	other technical specialists as needed	project-specific agreement.
Other				

Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader	Year 1: 15 Year 2–5: 12 per year	Year 1: 3 Years 2–5: 2 per year	Frequency based on defined need
Co-Task Team Leader	Year 1: 15 Year 2–5: 12 per year	Year 1: 3 Years 2–5: 2 per year	Frequency based on defined need
Agribusiness Specialist	8 per year	2 per year	
Value chain Specialist	8 per year	2 per year	
Financial Sector Specialist	6 per year		
Procurement Specialist	Year 1–2: 6 per year Year 3–5: 4 per year	2 per year	
FM Specialist	Year 1–2: 6 per year Year 3–5: 4 per year	2 per year	
Environment Specialist	Year 1–2: 6 per year Year 3–5: 4 per year	2 per year	
Social Specialist	Year 1–2: 6 per year Year 3–5: 4 per year	2 per year	
Energy Specialist	Year 1–2: 6 per year Year 3–5: 4 per year	2 per year	
Irrigation Specialist	Year 1–2: 6 per year Year 3–5: 4 per year		
Transport Specialist	Year 1–2: 6 per year Year 3–5: 4 per year	2 per year	
Communications	1 per year		Frequency based on defined

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Specialist			need
Team assistant	4 per year		

Partners

Name	Institution/Country	Role
AFD team leader; Specialist as needed	AFD	Participate in project supervision as agreed in the World Bank/AFD project-specific agreement

ANNEX 4: ECONOMIC AND FINANCIAL ANALYSIS

ANGOLA: Commercial Agriculture Development Project

1. An economic and financial analysis (EFA) was prepared as part of project preparation. The quantitative portion of the analysis focused on Components 1 (Matching Grants and PCGs) and 2 (Infrastructure investments). Since Component 3 focuses primarily on technical assistance and support to creating an enabling environment for agribusiness investments, a qualitative analysis focusing on the potential benefits of investments under this component is included. Project cash flows were discounted over a 15-year period using a 12 percent discount rate. The project window is six years.

2. Specifically, Subcomponents 1.1 and 1.2 (delivering Matching Grants and PCGs, respectively), were analyzed jointly due to the strong overlap in project beneficiaries between the two. Some 311 business plans will receive both Matching Grants and PCG-backed loans. About 40 additional business plans will receive PCG loans without a Matching Grants. The base case NPV and ERR for Component 1 is estimated at EUR 91,445,432 and 22 percent. Component 2, which will invest in rural infrastructure in the form of road rehabilitation (surface rehabilitation as well as bridges and culverts), last-mile electricity lines and small-scale irrigation, has an estimated NPV and ERR of EUR 28,818,410 and 29 percent, respectively.

Rationale for Public Intervention

3. Banks in Angola are reluctant to lend to the agriculture sector, which limits the growth and prospects of an important sector for economic diversification, job creation, and poverty reduction. The CADP seeks to mobilize bank lending for commercially-oriented producer organizations and agribusiness SMEs through the Matching Grants and PCGs. The Matching Grants will incentivize participating beneficiaries to invest in the knowledge and equipment necessary to accelerate business growth during the project intervention; and the PCG will help reduce agricultural lending risks for Angolan banks. Over time, the CADP seeks to build more sustainable businesses along the agriculture value chain while strengthening the capacity of Angolan banks to successfully underwrite agricultural loans, thereby overcoming existing market failures limiting sector investment. The goal is increased sector growth, profitability, and access to credit. Direct support to eligible farmers and agribusiness SMEs needs to be complemented by investments in public goods, specifically infrastructure provision (roads, irrigation, and last-mile electricity connections), to increase the viability of the business plans, by removing existing bottlenecks and facilitating production intensification and market access.

World Bank's Value Added

4. The World Bank's value addition is primarily as a channel for global expertise in agribusiness development and financing programs, and infrastructure, especially the capacity building and technical expertise required for such programs to have a successful impact on local populations. The World Bank's knowledge of and experience with environmental and social standards needed for infrastructure investments–including similar projects in multiple countries—is especially valuable. The World Bank

team includes members with deep expertise and a strong relationship with the Angolan Government and relevant implementing agencies. Additionally, the World Bank uses its convening power to coordinate the support with other donor and private sector programs.

Contribution of EFA to Project Design

5. Information provided from the EFA was used to refine details of the project design such as the mix and size of targeted SMEs and agribusiness players, emphasis on different links in agricultural value chains, the design and implementation of the PCGs, and M&E targets and their associated timing.

Actions during Implementation to Revisit EFA at Midterm

6. At midterm, the project team will use current M&E data to evaluate the impact of the investments under Components 1 and 2 and the progress toward building a more enabling environment for agribusiness investment under Component 3. This data will be used to calculate an updated interim rate of return and NPV. Given that much of the impact associated with the project will be visible in the years after closing, the interim ERR and NPV will most likely be negative at midterm; however, these values can be used to evaluate the quality of the original predictions during project design. Additionally, the EFA and its estimates of future impact will be updated to reflect the realities of the project at midterm. This includes updating the expected ERR and NPV going forward based on the actual data available and using this information to qualify and assess potential changes to the project budget allocations and design.

Impact of the Project on the Borrower's Financial Situation

7. Given the oil price drop since 2014, the Government of Angola has experienced fiscal challenges, including limited resources available for domestic investment, particularly in agriculture. This project will provide financing directed at this sector and will support spillovers through investments in infrastructure and the enabling environment. As mentioned earlier, this project will deploy much needed capital into strengthening the Angolan Government's legal, regulatory, and overall environment for agribusiness investments.

Financial Analysis on Anticipated Cost Recovery and Sustainability

8. A financial analysis on the ability to recover the cost associated with this loan has been developed as part of this economic analysis for the Government of Angola. Loan terms, including a EUR 105.5 million loan with a 5-year grace period, a 25-year subsequent repayment period, and a 2% interest rate, were analyzed. Corporate tax rates from 20%-30% were also assumed. Discounted at 12% and based on the foregoing assumptions, the 25-year government ERR (starting from repayment) ranges from 10 percent to 630 percent depending upon the corporate tax rate realized. The NPV ranges from EUR 12 million to EUR 30 million. This broad range occurs for most projects because realized tax rates, and hence the associated government revenue, can vary widely. The financial analysis conducted here has been used to inform the discussion on the loan terms with the Government of Angola, and this analysis will be updated at project mid-term along with the economic analysis for the project.

Detailed Economic Analysis

9. This economic analysis accounts for the benefits to Angola because of investments supported under this project that reach completion. This is a discounted cash flow analysis that uses estimates for the financial impact on beneficiaries to account for the future value of the project (as a company would be valued using discounted cash flow). This includes improvements in income for companies that benefit from the Matching Grants and PCG (Component 1), along with beneficiaries of the infrastructure investments (Component 2). The analysis for Component 3 is based on qualitative analysis, detailed in the next section.

10. For this analysis, a distinction is drawn between the estimated impact of this project and the indirect benefits expected such as increased private investment due to the wider and combined impact of project investments. The quantitative portion of the analysis focuses on Components 1 and 2. If the investments under Component 3 are successful in creating a more enabling environment, they may be able to crowd in significant private sector financing for agribusiness investments. This would amplify the impact of this project, creating a multiplier effect related to the investments under this project. However, this multiplier effect has purposely been excluded from this analysis because: (a) of a need for conservatism, especially given the political and macroeconomic context of Angola, which could have a major effect on future investment projects; (b) difficulties in attribution and measurement associated with using a sweeping multiplier; and (c) difficulties in determining the correct size and timing of the multiplier effect. Given this exclusion, the impacts from this project will likely be larger than what is described in this analysis.

Component 1: Promotion and Support for Agribusiness Development

11. This component includes Matching Grants to eligible farmers and agribusiness SMEs to help them develop knowledge and access capital for new investments and PCGs for commercial bank loans to these beneficiaries. The participating projects are largely the same in both, except for an estimated 40 business plans that will receive PCGs without a Matching Grants. An overview of the Matching Grants and PCG basic inputs can be found in table 4.1.

Table 4.1. Overview of the Matching Grants and PCG Basic Inputs

MATCHING GRANTS	
Matching Percentage (small window)	50%
Matching Percentage (large window)	33.75%
Recipient contribution	10%
Total Budget	EUR 33,000,000
Budget – Small window	EUR 8,250,000
Budget – Large window	EUR 24,750,000
No. of Years MG Applied	6
Multiple of contribution as revenue	10
PARTIAL CREDIT GUARANTEE	
PCG Fund Balance	EUR 20,000,000
Investment Income on Fund	1%
FGC Fee	2%
Multiplier	2.5
Guarantee Coverage	65%
Interest Income on Loans	18%
NPL Rate	3.2%
Technical Assistance	EUR 1,296,000
FGC Staff Salary	EUR 140,000
FGC Operating Expenses	EUR 20,000

12. The project assumes two windows—small and large. The project assumes two windows – small and large. The small window will focus on projects (business plans) with an average size of EUR 83,500 and up to EUR 121,500, and a Matching Grants of 50 percent. The large window will focus on projects with an average size of EUR 648,000, and a Matching Grants of 50 percent on the first EUR 121,500 in revenue and 30 percent from EUR 121,500 to EUR 810,000 (an average of 33.75 percent). Small window projects will receive 25 percent of subcomponent funds EUR 11 million) and large window projects will receive 75 percent of project funds (EUR 33,000,000). Beneficiaries will provide a 10 percent in-kind investment.

13. The partial credit guarantee capitalization is EUR 20 million, which can be leveraged 2.5 times to issue EUR 50 million in guarantees. The guarantee coverage is 65 percent of the loan, resulting in a total capital mobilized of approximately EUR 77 million lent to the agriculture industry in Angola. The PCG facility enjoys a 2 percent fee from participating financial institutions and 1 percent return from investing in “risk-free” assets, such as sovereign Euro-denominated bonds. In the base case, an 18 percent interest rate is expected on lent capital to agribusiness SMEs, and a 3.2 percent NPL rate is assumed with no recoveries. A few notes are in order about this interest rate (18%) and the NPL rate (3.2%). The interest rate, at 18%, is the total market rate charged to project beneficiaries (agribusiness SMEs) before any kind of subsidies or other reimbursements. The project team believes there is a high probability that this figure will come down meaningfully *to borrowers*, given the existence of programs such as Angola Invest that help subsidize borrowing. As such, a lender might get an 18% composite rate, but the borrowers might pay meaningfully less, once the subsidy has been included. Additionally, based on rigorous financial modeling, a 3.2% NPL rate is the upper bound of NPLs the project can support without beginning to lose the original EUR 20 million guarantee fund capital, assuming zero recoveries (e.g. all NPLs are totally charged off and not recovered). Measures will be put in place to control NPL at PFIs, for example stop losses on PFIs with growing NPLs and limits on exposure to any one bank.

14. Turning to the Matching Grants, the base case assumes small and large window projects grow at 8 percent per year with no intervention (the minimum growth rate of participating projects) and 10 percent with MG and PCG funds added. Ten percent annual losses are assumed. These assumptions result in an ERR of 22 percent and an NPV of EUR 91.4 million, as mentioned above. The basic assumptions for the base case are shown below.

Table 4.2. Assumptions for Base Case

Small Window Projects	25%
Large Window Projects	75%
Total Project Number	311
Small Project Number	198
Large Project Number	113
Additional Large PCG Projects	40
Discount Rate	12%
Small Window	
Starting Revenue	EUR 33,818
Matching Grants investment	EUR 83,500
Revenue Growth Rate	8%
Revenue Growth with MG	10%
Cost Ratio	55%
Small Co Failure Rate	10%
Large window	
Starting Revenue	EUR 177,147
Matching Grants Investment	EUR 648,000
Revenue Growth Rate	8%

Revenue Growth with MG	10%
Cost Percentage	80%
Large Co Failure Rate	10%
NPV	EUR 91,445,432
ERR	22%

15. A worst-case scenario for both windows of 8 percent growth (no incremental change from the project) with the Matching Grants and PCG funds and a 30 percent loss rate results in an NPV of EUR 73.5 million and ERR of 18 percent.

16. A best-case scenario of 15 percent growth rate for small and large windows and 5 percent losses results in an NPV of EUR 170.8 million and an ERR of 38 percent.

Component 2: Infrastructure for Production and Marketing

17. This component finances the development of key infrastructure that will unlock the economic potential of project beneficiaries and includes investments in rehabilitation of rural roads, last-mile electricity connections, and small-scale irrigation, as well as associated technical assistance and maintenance.

18. **Rehabilitation of rural roads - key assumptions.** This portion of the subcomponent has a EUR 36 million allocation and assumes reconstruction of bridges and culverts in the project areas (estimated at about 202), 86 km of surface road rehabilitation, and maintenance of the same amount of road. On the cost per unit, a 15 percent contingency is assumed for cost overruns. Engineering design, supervision, and technical assistance costs are built in as well.

19. **Irrigation - key assumptions.** The irrigation allocation is EUR 24 million. Some 2,500 ha of irrigated land will be affected under this portion of the subcomponent, at an average cost of EUR 6,000 per ha. at an average cost of €4860 per ha. Equipment cost is estimated at EUR 705 per ha annually, and technical assistance and services are assumed to be EUR 162 per ha, but only for 3 years.

Table 4.3. Irrigation - Assumptions

IRRIGATION		
Subcomponent Total	EUR 24,000,000	
Total hectares (ha)	2,500	
Average Buildout Cost	EUR 4,860 per ha	
Equipment Cost	EUR 705 per ha	
Technical assistance + Services	EUR 162 per ha	Note: 3 years of services provided

20. **Electrification - key assumptions.** This subcomponent's allocation is EUR 16.5 million. An estimated 121 km of last-mile distribution lines will be laid. Costs per km of low and medium voltage line are estimated at EUR 63,467 per km, and EUR 157,686 per km for high voltage line. Distribution substations cost EUR 2.9 million for a 40 Megavolt amperes (MVA) station and EUR 1.5 million for a 10 MVA station. For the sake of simplicity, one 40 MVA distribution station was assumed to support 100 km of line, and one 10 MVA station was assumed to support 50 km of line. These assumptions may need to be iterated as the project advances.

21. The economic analysis assumes GDP per capita at EUR 1,620 (USD 2,000), somewhat below the country figure of EUR 3,110. This is to account for lower incomes in beneficiary regions, as well as controlling for the disproportionate impact of oil on the economy. The GDP growth rate without the infrastructure improvements is estimated at 1.4 percent. Growth with the investments is estimated at 5 percent. Additionally, the impacted population for each province is estimated at 4 percent. Using these figures, a 'starting GDP' of project beneficiaries can be estimated for each province, and the net improvement in cash flows, in the form of GDP per capita growth, resulting from the intervention can be estimated. Under these conditions, the NPV of this subcomponent is EUR 28,818,410 and the ERR is 29 percent.

Shadow Price of Carbon

22. The shadow price of carbon was calculated using a net carbon sink of 38,967 tons of Carbon Equivalent (tCO_2e) per year for the project. In this scenario, net negative carbon is a negative cost, or a cash flow benefit or source of cash in the economic value of the project. Two scenarios were contemplated, a low carbon price (EUR 32/tCO_2e) and high carbon price (EUR 65/tCO_2e). The NPV of the low carbon price scenario is €8.5 million and the high carbon price scenario is EUR 17.2 million, both at a 12 percent discount rate.

Component 3: Institutional Strengthening and Improved Business Environment

23. The benefits of the third component are difficult to assess quantitatively. This component will generate important externalities related to information access, availability of new agricultural technologies, and the overall efficacy of public agricultural investments and policies. Government capacity-building efforts will increase access to research, extension, and other services for the benefit of producers and, ultimately, food consumers. Public outreach campaigns will include messaging related to gender equality and nutrition that promote human capital development.

24. Subcomponent 3.1 will focus on developing a public-private dialogue mechanism for specific value chains and national and local government. A review of available literature finds support for the effectiveness of public-private dialogue. Under the right conditions, avoiding regulatory capture and

rent seeking, public-private dialogue can be very effective in removing barriers to economic growth.[66] Subcomponent 3.2 will focus on research and development efforts to help bring improved technologies and inputs to farmers in Angola, improving yields and quality, which should in turn drive up incomes. Specific verticals will be targeted through competitive partnerships, for example targeting coffee growing, commercial chicken breeding, and improved soil analysis. Subcomponent 3.3 will finance technical assistance and equipment for MINAGRIF's efforts to provide improved public goods to the agriculture sector. In many other countries, these systems and services help catalyze wealth in the agriculture space and a similar result is expected in Angola.

[66] Ghezzi, Piero Eduardo; Utterwulghe, Steve Denis Jean. 2017. *Public-private dialogue for modern industrial policies: towards a solutions-oriented framework (English)*. Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/222441504197210483/Public-private-dialogue-for-modern-industrial-policies-towards-a-solutions-oriented-framework; World Bank. Public-Private Dialogue for Specific Sectors: Agribusiness; Herzberg, Benjamin, and Andrew Wright. "Competitiveness Partnerships: Building and Maintaining Public-Private Dialogue to Improve the Investment Climate-A Resource Drawn from the Review of 40 Countries' Experiences." World Bank Policy Research Working Paper 3683 (2005).

ANNEX 5: GREENHOUSE GAS ACCOUNTING

ANGOLA: Commercial Agriculture Development Project

1. **Corporate mandate.** In its 2012 Environment Strategy, the World Bank adopted a corporate mandate to conduct GHG emissions accounting for investment lending in relevant sectors. The ex-ante quantification of GHG emissions is a key step in managing and ultimately reducing GHG emissions and 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), which was developed by the FAO in 2010. EX-ACT allows the assessment of a project's net carbon-balance, defined as the net balance of CO_2 equivalent GHG that was emitted or sequestered as a result of project implementation compared to a without-project scenario. EX-ACT estimates the carbon stock changes (emissions or sinks), expressed in tCO_2e per hectare and year.

3. **Project boundary.** Component 1 states that climate-smart agriculture practices will be applied to crops such as maize, beans, and soy. Component 2 includes rural roads rehabilitation (Subcomponent 2.1), irrigation project and inputs increase (Subcomponent 2.2), and last-mile rural electricity connections (Subcomponent 2.3). Component 3 underlines production techniques, conservation agriculture, and adaptation and mitigation of climate change (Subcomponent 3.2).

(a) Climate-smart agriculture practices on annuals:

Table 5.1. Climate-smart Intervention Practices

Crop	Improved Agronomic Practices	Nutrient Management	No Tillage/Residues Management	Water Management	No Residue Burning	Manure Application	Area (ha)
Maize	✓	✓	✓	✓	✓	✓	3,500
Beans	✓	✓		✓	✓		3,000
Soy	✓	✓		✓	✓		250

(b) **Grassland improvement.** Around 1,000 ha of grazed, non-managed grassland will be improved with inputs improvement without fire use to manage in a with-project scenario, while the state will deteriorate to severely degraded state with fire use (assumed 5 years periodicity) to manage in a without-project scenario. In addition, 10,000 ha of non-grazed, non-managed grassland will be improved with inputs improvement without fire use to manage in a with-project scenario, while the state will deteriorate to moderately degraded state with fire use (assumed 5 years periodicity) to manage in a without-project scenario.

(c) **Poultry.** It is assumed that the number of poultry will increase from 5,000 (without project) to 15,000 (with project).

(d) **Inputs application per year.** Application of dolomite chemical nitrogen fertilizer will increase from 22 kg per ha to 45 kg per ha; application of compost will increase from 15 kg per ha to 45 kg per ha; application of urea will increase from 5 kg per ha to about 13 kg per ha; application of P_2O_5 will increase from 45 kg per ha to 90 kg per ha; application of K_2O will increase from 18 kg per ha to 48 kg per ha. Application of insecticides remain the same at 200 ml per ha, but the implementation area will increase from 6,500 ha to 17,750 ha.

(e) **Energy consumption.** Electricity use will increase from 121 MWh per year (without project) to 256 MWh per year (with project). Diesel use will decrease from 2,000 m^3 per year (without project) to 100 m^3 per year (with project).

(f) **Construction of new infrastructure.** Irrigation canals will be constructed with 100 ha (with project) instead of 10 ha (without project). Drip sprinkler will be constructed with 2,500 ha (with project) instead of 120 ha (without project). It is also assumed that tertiary roads will be constructed with 800,000 m^2 (with project) instead of 400,000 m^2 (without project).

4. **Baseline scenario.** The assumed baseline (or without project) scenario is consistent with the EFA. For instance, traditional annual crops are not applied with the most climate-smart agriculture practices (for example, improved agronomic practices, no tillage, nutrient management, water management, no burning or manure application).

5. **Data sources.** These will be from the MIS, midterm, and final impact evaluations and/or case studies in the charge of Angola MINAGRIF/PIU.

6. **Key assumptions.** Overall, the project-targeted provinces Kwanza-Norte, Malanje, and Kwanza-Sul have warm temperate climate with moist moisture regime. The dominant soil type is low activity clay. The project implementation phase is 6 years and the capitalization phase is assumed to be 9 years. To be consistent with the EFA, total duration of accounting is assumed to be 15 years.

7. **Results.** The net carbon balance quantifies GHGs emitted or sequestered because of the project compared to the without-project scenario. Over the project duration of 15 years, the project constitutes a gross carbon sink of 234,514 tCO_2e, a net carbon sink of 584,507 tCO_2e compared to the without-project scenario. The project provides a net sink of 38,967 tCO_2e per year. The increase in carbon sequestration will lead to other co-benefits, including improved biodiversity, reduced soil erosion, and enhanced agro-ecosystem resilience.

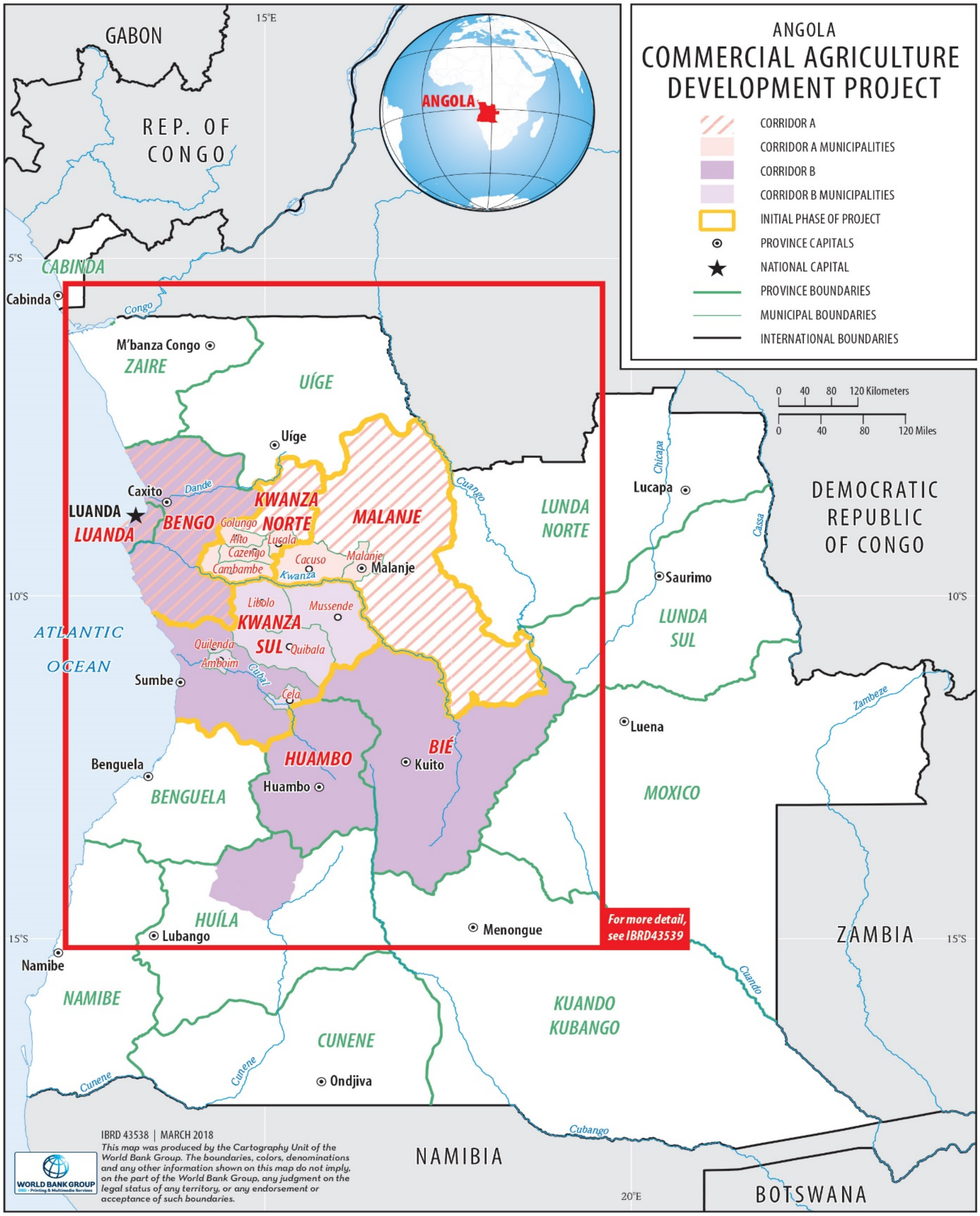
Table 5.2. Results of the Ex Ante GHG Analysis

	Over the Economic Project Lifetime (tCO_2e)			Annual Average (tCO_2e/year)		
Project activities	**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 annuals	18,914	−156,195	−175,109	1,261	−10,413	−11,674
Grassland improvement	112,188	−411,559	−523,747	7,479	−27,437	−34,916
Poultry production	319	850	531	21	57	36
Inputs and investments	218,572	332,390	113,818	14,571	22,159	7,588
Total	349,993	**−234,514**	**−584,507**	23,333	−15,634	**−38,967**
Per ha	20	−13	−33			

8.

ANNEX 6: PROJECT MAPS

ANGOLA: Commercial Agriculture Development Project




ANGOLA
COMMERCIAL AGRICULTURE DEVELOPMENT PROJECT
CORRIDOR A
CORRIDOR A MUNICIPALITIES
CORRIDOR B
CORRIDOR B MUNICIPALITIES
INITIAL PHASE OF PROJECT
PROVINCE CAPITALS
NATIONAL CAPITAL
MAIN ROADS
PROVINCE BOUNDARIES
MUNICIPAL BOUNDARIES
INTERNATIONAL BOUNDARIES
ANGOLA
Congo
M'banza Congo
ZAIRE
UÍGE
Uíge
Dande
Caxito
LUANDA
LUANDA
BENGO
KWANZA
NORTE
MALANJE
Golungo
Alto
Lucala
Cazengo
Cacuso
Malanje
Malanje
Cambambe
Kwanza
Cuango
LUNDA
NORTE
Libolo
Mussende
KWANZA
SUL
Quilenda
Quibala
Amboim
ATLANTIC
OCEAN
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SUL
Sumbe
Cubal
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HUAMBO
Kuito
Benguela
Huambo
MOXICO
BENGUELA
Cuando
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