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INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN

IN THE AMOUNT OF EUR 163.7 MILLION  
(US\$200 MILLION EQUIVALENT)

TO THE

TO THE COTTON AND CASHEW COUNCIL WITH THE  
GUARANTEE OF THE REPUBLIC OF COTE D'IVOIRE

FOR A

CASHEW VALUE-CHAIN COMPETITIVENESS PROJECT

March 15, 2018

Agriculture Global Practice  
Africa Region

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## CURRENCY EQUIVALENTS

(Exchange Rate Effective February 28, 2018)

Currency Unit = CFA franc

US\$ 1 = CFA 537

EUR 1= US\$0.81843107

## FISCAL YEAR

January 1 - December 31

## ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
AGEDI	<i>Agence pour la Gestion des Zones Industrielles</i> (Agency for the Management of Industrial Zones)
AGEROUTE	<i>Agence de Gestion des Routes</i> (Road Management Agency)
ALP	Agriculture Leadership Program
ANADER	<i>Agence Nationale de l'Appui au Développement Rural</i> (National Rural Development Agency)
ANDE	<i>Agence Nationale de l'Environnement</i> (National Environment Agency)
ARRE	<i>Autorité de Régulation du système de Récépissé d'Entreposage</i> (Warehouse Receipt System Regulatory Authority)
BNETD	<i>Bureau National d'Etudes Techniques et de Développement</i> (National Bureau of Technical Studies and Development)
CAGR	Compounded Annual Growth Rate
CCA	<i>Conseil du Coton et de l'Anacarde</i> (Cotton and Cashew Council)
ComCashew	Competitive Cashew Initiative
CDC	Cashew Development Center
CFA	<i>Franc de la Communauté Financière d'Afrique</i> (Franc of the Financial Community of Africa)
CFR	Cost and Freight
CEG	Collateral Enhancement Grant
CITA	<i>Centre d'Innovation et de Technologie de l'Anacarde</i> (Cashew Innovation and Technology Center)
CNRA	<i>Centre National de Recherche Agricole</i> (National Agricultural Research Center)
CNSL	Cashew Nutshell Liquid
CPF	Country Partnership Framework
CPP	Cashew Processing Platforms
CRDC	Cashew Research and Development Center
CSH	Cashew Service Hub
DA	Designated Account
DCR	Indian Directorate of Cashew Research
DFF	Dedicated Financing Facility
DOPA	<i>Direction des Organisations Professionnelles de l'Agriculture</i> (Directorate for Agricultural Professional Organizations)
EIB	European Investment Bank
Embrapa	<i>Empresa Brasileira de Pesquisa Agropecuária</i> (Brazilian Agricultural Research Corporation)
ERR	Economic Rate of Return
ESIA	Environmental and Social Impact Assessment

ESMF	Environmental and Social Management Framework
FHB	Félix Houphouët Boigny
FIPME	<i>Fédération Ivoirienne des Petites et Moyennes Entreprises</i> (Ivorian Federation of Small and Medium Enterprises)
FIRCA	<i>Fond Interprofessionnel pour la Recherche et le Conseil Agricoles</i> (Interprofessional Fund for Agricultural Research and Advisory Services)
FM	Financial Management
GAP	Good Agricultural Practices
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GHG	Greenhouse gas
GHP	Good Hygienic Practices
GIS	Geographic Information System
GIZ	German Cooperation Agency
GMP	Good Manufacturing Practices
GoCI	Government of Côte d'Ivoire
GRS	Grievance Redress Service
ha	Hectare
HACCP	Hazard Analysis and Critical Control Point
HCMC	Ho Chi Minh City
IDA	International Development Association
IFC	International Finance Corporation
IFR	Interim Financial Report
IGF	<i>Inspection Générale des Finances</i> (Directorate of Inspection, MEF)
INDC	Indented Nationally Determined Contribution
IPR	Implementation Progress Report
ISM	Implementation Support Mission
kg	Kilogram
Lb.	Pound
LOC	Line of Credit
MEF	<i>Ministère de l'Économie et des Finances</i> (Ministry of Economy and Finance)
MINADER	<i>Ministère de l'Agriculture et du Développement Rural</i> (Ministry of Agriculture and Rural Development)
M&E	Monitoring and Evaluation
MG	Matching grants
MIM	<i>Ministère de l'Industrie et des Mines</i> (Ministry of Industry and Mines)
MIS	Management/Market Information System
MoE	<i>Ministère de la Salubrité, de l'Environnement et du Développement Durable</i> (Ministry of Sanitation, Environment and Sustainable Development)
NAIP	National Agriculture Investment Program
NARI	Naliendele Agricultural Research Institute in Tanzania
NDP	National Development Plan
PCU	Project Coordination Unit
PDO	Project Development Objectives
PFI	Partner Financing Institution
PGC	Project Grant Committee
PIA	Project Implementation Agency
PIDUCAS	<i>Projet d'Infrastructure pour le Développement Urbain et la Compétitivité des Villes Secondaires</i> (Infrastructure for Urban Development and Competitiveness of Secondary Cities Project)
PIM	Project Implementation Manual
PLR	Performance and Learning Review
PMO	Prime Minister's Office

PNRA	<i>Programme National de Recherche sur l'Anacardier</i> (National Cashew Research Program)
PNRMN	<i>Programme National de Restructuration et de Mise à Niveau</i> (National Program for Industry Restructuring and Upgrading)
PPA	Project Preparation Advance
PPP	Public-Private-Partnership
PPSD	Project Procurement Strategy for Development
PSAC	<i>Projet d'Appui au Secteur Agricole</i> (Agricultural Development Support Project)
PSC	Project Steering Committee
R&D	Research and development
RAP	Resettlement Action Plan
RCN	Raw Cashew Nut
RONGEAD	<i>Réseau non-gouvernemental européen sur l'agroalimentaire, le commerce, l'environnement et le développement</i> (European Non-governmental Network for Agribusiness, Trade, Environment, and Development)
RPF	Resettlement Policy Framework
SCD	Systematic Country Diagnostic
SDS	Security Deposit Scheme
SDR	Special Drawing Rights
SEA	Sexual Exploitation and Abuse
SESA	Social and Environmental Strategic Assessment
SME	Small and Medium Enterprises
SNERR	<i>Stratégie Nationale de Développement du Réseau et d'Entretien des Routes Rurales</i> (National Rural Road Development and Maintenance Strategy)
SOE	Statement of Expenditures
SORT	Systematic Operations Risk-Rating Tool
SP	Study Proposal
t	Metric ton
TC	Technical Committee
TTL	Task Team Leader
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
US\$	United States dollar
WAAPP	West Africa Agriculture Productivity Program
WBG	World Bank Group
WRS	Warehouse Receipt System
Yr.	Year

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Senior Global Practice Director/Director:	Juergen Voegele/Simeon k. Ehui
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Practice Managers:	Marianne Grosclaude/Consolate K. Rusagara
Task Team Leader(s):	Chakib Jenane, Juvenal Nzambimana, and Yannick Saleman



### BASIC INFORMATION

Is this a regionally tagged project? No	Country(ies)	Financing Instrument Investment Project Financing
<input type="checkbox"/> Situations of Urgent Need of Assistance or Capacity Constraints <input type="checkbox"/> Financial Intermediaries <input type="checkbox"/> Series of Projects		
Approval Date 10-Apr-2018	Closing Date 31-Jul-2023	Environmental Assessment Category A - Full Assessment
Bank/IFC Collaboration Yes	Joint Level Complementary or Interdependent project requiring active coordination	

### Proposed Development Objective(s)

The objective of the Project is to increase cashew productivity, quality and value-added, benefiting smallholder farmers and the cashew processing industry in the Republic of Côte d'Ivoire.

### Components

Component Name	Cost (US\$, millions)
1. Institutional strengthening and value chain governance	14.43
2. Productivity enhancement and improved access to markets	57.83
3. Support to private investment in post-harvest and processing infrastructure	196.25
4. Program coordination, monitoring and knowledge management	16.74

### Organizations

Borrower : Conseil du Cotton et de l'Anacarde



Implementing Agency : Ministry of Mines and Industry

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

<input checked="" type="checkbox"/> Counterpart Funding	<input checked="" type="checkbox"/> IBRD	<input type="checkbox"/> IDA Credit	<input type="checkbox"/> IDA Grant	<input type="checkbox"/> Trust Funds	<input type="checkbox"/> Parallel Financing
Total Project Cost: 285.25	Total Financing: 285.25		Financing Gap: 0.00		
	Of Which Bank Financing (IBRD/IDA): 200.00				

**Financing (in US\$, millions)**

Financing Source	Amount
IBRD-88450	200.00
LOCAL: BENEFICIARIES	85.25
<b>Total</b>	<b>285.25</b>

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

Fiscal Year	2018	2019	2020	2021	2022
Annual	6.00	35.00	70.00	54.00	35.00
Cumulative	6.00	41.00	111.00	165.00	200.00

**INSTITUTIONAL DATA**

**Practice Area (Lead)**

Agriculture



**Contributing Practice Areas**

Environment & Natural Resources  
Finance, Competitiveness and Innovation

**Climate Change and Disaster Screening**

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

**Gender Tag**

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

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

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● Substantial
8. Stakeholders	● Moderate
9. Other	● Substantial
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

✓

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**

Prior to any modification of the Levy that may adversely affect the ability of the Borrower to meet its periodic Loan repayment obligations from funds held in the Repayment Account, including, but not limited to, any change in the collection procedure or any reduction in the Levy to less than 20 FCFA/kg at any time during the Loan, the Borrower and the Guarantor shall consult with the Bank and implement alternative credit enhancement measures for the Project satisfactory to the Bank.

**Sections and Description**

At all times during the life of the Loan, except as the Bank shall otherwise agree, the Borrower shall not permit the ratio of (i) the total amount that has transited into the Repayment Account during the period of the calendar year immediately preceding the date of any calculation to (ii) the projected maximum debt service requirements under the Loan for the immediately succeeding calendar year, to be less than one and one-half (1.5) (the “Minimum



Ratio”).

Sections and Description

The Bank, on the basis of the statements of account of the Repayment Account provided monthly by the Repayment Account Bank as described in Section III.2 above, shall calculate the Minimum Ratio annually and shall promptly notify the Borrower in the event that the Minimum Ratio is less than one and one-half (1.5) at any time.

Sections and Description

No later than 6 months after effectiveness, strengthen the capacity and performance of the oversight function of FIRCA through the revision of “the internal audit chapter” and the creation of an effective Audit Committee.

Sections and Description

As transitional measures, the implementation unit for the West Africa Agriculture Productivity Program, established within FIRCA, shall initially be responsible for managing and coordinating Project activities, including procurement and financial management and the daily management of the Designated Account. No later than three (3) months after the Effective Date the PCU will take over all functions, apart from the fiduciary function, which will remain entrusted to FIRCA.

Sections and Description

For the purpose of carrying out Project activities, the Borrower shall no later than three (3) months after the Effective Date, enter into Subproject Agreements with project implementation agencies, each under their respective mandates: (i) FIRCA and CNRA for agriculture research activities and production of seedlings, (ii) ANADER for extension of cashew good agricultural practices, (iii) DOPA for support to professional organizations, (iv) AGEDI for promotion of the processing platforms dedicated to cashew, (v) BNETD for preparation of technical studies, and (vi) AGEROUTE for the rehabilitation of feeder roads.

Sections and Description

The Borrower shall ensure that FIRCA appoints: (A) a financial management specialist, (B) a procurement specialist, (C) a principal accountant, and (D) an external auditor, all with qualifications and experience satisfactory to the Bank and no later than three (3) months after the Effective Date.

Sections and Description

The Borrower shall ensure that FIRCA updates the accounting software and its fiduciary procedures manual no later than two (2) months after the Effective Date.

Sections and Description

The Borrower shall ensure that FIRCA signs a protocol with the Inspection General des Finances (IGF) and Ministry of Economy and Finance (MEF) which will allow IGF to include the Project in the scope of its work no later than two (2) months after the Effective Date.



Sections and Description

The Borrower shall ensure that FIRCA creates an audit committee to strengthen its capacity and performance regarding its oversight function for the Project, no later than six (6) months after the Effective Date.

Sections and Description

The Borrower shall furnish to the Bank, not later than December 15 of each year, the annual work plans and budgets approved by the Steering Committee for the Banks’s review and approval; except for the annual work plan and budget for the Project for the first year of Project implementation, which shall be furnished no later than one (1) month after the Effective Date. Only the activities included in an annual work plan and budget expressly approved by the Bank (each an “Annual Work Plan and Budget”) are eligible to be financed from the proceeds of the Financing.

Conditions

Type  
Effectiveness

Description

The Borrower has signed a fiduciary management agreement with FIRCA to entrust FIRCA with the financial management and procurement of the Project.

Type  
Effectiveness

Description

The Borrower has adopted the PIM with the specifications described in Section 1.C of Schedule 2 and as approved by the Bank.

Type  
Effectiveness

Description

The Guarantee Agreement acceptable to the Bank has been executed on behalf of the Guarantor.

Type  
Effectiveness

Description

The Bank has received evidence that the Borrower has established a Guarantee Account with the Guarantee Account Bank and deposited in the Guarantee Account, an amount equal to eighteen (18) months’ peak anticipated debt service payments on the Loan, as calculated by the Bank.

Type  
Effectiveness

Description

A Guarantee Account Security Agreement, acceptable to the Bank, has been duly executed on behalf of the Borrower, the Guarantee Account Bank, and the Bank, setting forth each party’s rights and obligations thereunder; and the Bank has received legal opinions of counsel acceptable to the Bank or other assurances satisfactory to the Bank, evidencing the validity and enforceability of the Bank’s rights set forth in the Guarantee Account Security Agreement under the laws of the jurisdiction in which the Guarantee Account Security Agreement is located.



Type Effectiveness	Description The Bank has received evidence that the Borrower has established a Repayment Account with the Repayment Account Bank, with the purpose of depositing the revenue from the Levy.
Type Effectiveness	Description A Repayment Account Triparty Agreement, acceptable to the Bank, has been duly executed on behalf of the Borrower, the Repayment Account Bank, and the Bank, setting forth each party's respective rights and obligations thereunder; and the Bank has received legal opinions satisfactory to the Bank of counsel acceptable to the Bank or other assurances satisfactory to the Bank, evidencing the validity and enforceability of the Bank's rights, and showing that the Repayment Account Triparty Agreement has been duly authorized, executed and delivered on behalf the Borrower and is legally binding upon the Borrower in accordance with its terms.
Type Effectiveness	Description The Bank has received a letter or other satisfactory assurance from the BCEAO (which may be addressed to the Borrower or the Guarantor, but upon which the Bank can rely) confirming (i) the BCEAO has issued a letter to the Borrower and the Guarantor confirming (a) it has received copies of this Agreement, the Guarantee Account Security Agreement, the Repayment Account Triparty Agreement and the Guarantee Agreement, (b) none of the obligations of the Borrower and/or the Guarantor in such agreements are in conflict with the applicable rules and regulations of the BCEAO and (ii) the BCEAO will comply with and cooperate with all activities described in such agreements in which the BCEAO may have a role.
Type Disbursement	Description No withdrawal shall be made under Categories 3 and 4 unless the Bank is satisfied that the Collateral Enhancement Grants, the Matching Grants and the Security Deposits comply with the provisions of paragraph 3 of Section I.B of this Schedule 2.
Type Effectiveness	Description The Borrower shall cause the Guarantor to issue for the purpose of the Project a waiver of the provisions of Decree No 2015-475 dated July 1st 2015 governing the modalities of donor-financed projects that requires the appointment of a public accountant and a financial controller from the Ministry of Budget.

**PROJECT TEAM****Bank Staff**

<b>Name</b>	<b>Role</b>	<b>Specialization</b>	<b>Unit</b>
Chakib Jenane	Team Leader(ADM Responsible)	Operations	GFA12
Juvenal Nzambimana	Team Leader	Operations	GFA01
Yannick Saleman	Team Leader	Operations	GFCAS
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Jean Charles Amon Kra	Financial Management Specialist	Operations	GGOAW
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Aissatou Seck	Team Member	Legal	LEGAM
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Daniel Villar	Team Member	Finance	CROCR
Fanja Ravoavy	Team Member	Operations	CMGSB
Gokhan Akinci	Peer Reviewer	Trade and Competitiveness	GFCA1
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Lorenzo Bertolini	Team Member	Operations	GFCAC
Mariame Bamba	Team Member	Program Assistant	AFCF2
Patrick Michael Dougherty	Team Member	Legal	LEGFI
Salam Hailou	Team Member	Program Assistant	GFA01



Samuel Taffesse	Peer Reviewer	Economist	GFAGE
Toshiaki Ono	Team Member	Agri-Finance	GFCLT
<b>Extended Team</b>			
<b>Name</b>	<b>Title</b>	<b>Organization</b>	<b>Location</b>
Himanshu Sharma	Policy consultant	World Bank	
James Fitzpatrick	Cashew sector expert	FAO	
Jean-Claude Balcet	Consultant, Agricultural Economist	World Bank	United States
Umesh Menon	Finance Specialist	FAO	India



CÔTE D'IVOIRE  
CASHEW VALUE-CHAIN COMPETITIVENESS PROJECT

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## I. STRATEGIC CONTEXT

### A. Country Context

1. **Supportive fiscal policies, renewed political stability, and structural reforms to improve the business investment climate have delivered a strong surge in economic activity and unprecedented GDP growth in Côte d'Ivoire.** The country registered an average real growth rate of 8.5 percent per year (among the highest in sub-Saharan Africa) over 2012–15, impelled by agriculture, services, industry, increased domestic demand, and rising investment. The economic outlook for the next three years is positive, given several factors including a growth rate that is expected to top off around 7 percent, the maintenance of moderate inflation and the control of public finances through prudent fiscal and monetary policies, as well as the furtherance of reforms aimed at improving the business climate and facilitating the efficient use of public-private partnerships.

2. **Challenges ahead include poverty and inequality reduction.** With rebounding economic growth, the incidence of poverty diminished slightly from an estimated 51 percent in 2011 to 46 percent in 2015, but other human development indicators have lagged. The government attempted to make growth more inclusive over 2012–15 by increasing farm prices of coffee, cacao, cashew, and other agricultural products and by improving basic rural infrastructure. Nevertheless, across the country significant disparities persist in educational attainment, health services, employment, and income. The 2016 Human Development Report ranked Côte d'Ivoire 171 of 188 countries; far below neighboring Ghana, which ranked 140 and with an overall Human Development Index lower than the average for sub-Saharan Africa. Box 1 highlights factors contributing to unbalanced development and fragility in Côte d'Ivoire.

#### **Box 1: Côte d'Ivoire factors of fragility**

The recent Systematic Country Diagnostic (SCD) by the World Bank finds that poverty is significantly concentrated in rural and northern Côte d'Ivoire. The proposed project focuses on those areas, with their unrealized agricultural potential. Poverty rates are 69 percent in the North versus 25 percent in the South. While spatial inequality worsened during most of the recent crisis, the rural-urban divide has continued to grow, even during the economic recovery. Greater Abidjan is becoming ever more dominant in the national economy. **This kind of unbalanced development is unsustainable, both economically (because it relies on too few sectoral and regional drivers) and socially (because it does not tackle the root causes of the country's fragility).**

3. **Côte d'Ivoire's ambitious development agenda is to become an emerging market economy.** The peaceful presidential elections of October 2015 diminished political uncertainty, paving the way for continued economic progress. The Government of Côte d'Ivoire (GoCI) recently adopted a new 2016–20 National Development Plan (NDP) aimed at achieving strong and inclusive growth, halving poverty, and fostering structural transformation. To support structural transformation, the government intends to further reform the business investment climate and strengthen the private sector contribution to the economy. It seeks to create new opportunities for diversification based on the country's comparative advantages, foster sustainable integration into regional and global value chains, and lend greater impetus to industrial production through the local transformation of a larger share of agricultural products, especially cacao and cashew. The GoCI has set a target of processing domestically at least 50 percent of cacao beans by 2020 and an even higher percentage of raw cashew nuts. The government seeks to increase the participation of nationally domiciled entities in cacao and cashew and is assessing policy options to encourage growth of small and medium enterprises (SMEs) in both sectors. Successful implementation of the NDP will depend on the pace at which the main structural barriers are removed and productivity-enhancing reforms are carried out, as well as on financing conditions and on how domestic and external risks are addressed.



## B. Sectoral and Institutional Context

4. **Côte d'Ivoire's economic growth has been driven by commodity-based exports, which will remain key to growth in the medium term.** The most important export crops—cacao, rubber, oil palm, cotton, and cashew—are the main sources of smallholders' income and the center-pieces of the country's major farming systems. Cacao, rubber, and oil palm are at the heart of the forest zone's diversified production mix, with smallholders generally maintaining a wide variety of cash and food crops (rice, cassava, plantain). Cotton and cashew are the main cash crops and drivers of the savannah economy and farming systems, which include maize, rice, and livestock. The use of fertilizer and improved technology in cotton production has important spillover effects on food crop productivity.

5. **The agricultural sector currently accounts for 22 percent of GDP and more than three-quarters of non-oil exports, and it provides employment and income to two-thirds of all households.** Côte d'Ivoire is the world's largest producer of cacao. The country remains the largest African exporter of raw cashew nuts (RCN), rubber, palm oil, bananas, and pineapples, and it is self-sufficient in a variety of staple foods—maize, sorghum, millet, yams, cassava, and plantain bananas—with some small exports to the sub-region. The impact of producing export commodities extends to other sectors through forward and backward linkages to input provision, processing, transport, financial services, taxes, energy, and final consumption, giving export crops a key role in creating jobs and reducing poverty. In fact, the domestic trade and transport industry (trucking and port) depends to a large extent on agriculture for its business. Similarly, the processing of cotton, rubber, palm oil, and sugar provides the base for rural industry and sustains a vital component of urban industry (cacao processing plants, textile mills, and facilities for extracting cottonseed oil, production of packaging materials, and transforming palm oil into soap, among others).

6. **Notwithstanding significant improvements in the performance of agriculture in recent years and its potential for further growth, several constraints impede the sector's sustainable development.** They include a range of technical and circumstantial issues, such as limited access to inputs, weak extension services, considerable post-harvest handling and storage losses, inadequate exposure to modern farming techniques, and aging and poorly maintained plantations. These limitations are compounded by structural economic factors, such as limited access to finance (especially for smallholders and SMEs), deteriorating physical infrastructure, and limited provision of public goods, all of which have contributed to the long-term stagnation of productivity and low value addition. By tackling these constraints, Côte d'Ivoire can unleash its agricultural potential and increase its presence in global value chains for agro-industries and many agri-food items in high regional and global demand. It could attract major investments that stimulate economic growth while creating value and scaling up innovation, positioning Côte d'Ivoire to achieve its overarching objective of ensuring wellbeing by reducing poverty and inequality through structural transformation of the economy.

7. **Climate change – Consequences and challenges for agriculture in Côte d'Ivoire.** Climate change is expected to impact the agricultural sector in general, but smallholders who produce much of the crops are the most vulnerable group – and the least equipped to cope with the changes. For instance, effects of climate change are becoming increasingly apparent in the predominately agriculture region of south-west Côte d'Ivoire causing increasing disruption to agricultural production cycles. Rising temperatures are expected to render certain producing areas less suitable or even completely unsuitable for growing (case of cacao)<sup>1</sup>. Farmers in these areas are particularly vulnerable since cacao production is often their primary

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<sup>1</sup> Research carried out by the Centro Internacional de Agricultura Tropical (CIAT) concluded that by 2050, a rise of 2.3 °C will drastically affect cacao production in major producing areas in Côte d'Ivoire.



source of income. Not only will these producers lose an important livelihood strategy, but the national government will also lose an important source of foreign exchange earnings.

8. **The cashew subsector of Côte d'Ivoire is an increasingly important source of raw cashew on the world market and of income for local farmers.** With a production of RCN of 711,000 tons in 2017 (23 percent of global production), Côte d'Ivoire is the world's second-largest producer of this commodity, for which demand is expected to remain strong (Box 2). The value of cashew exports is estimated at over US\$800 million, making cashew the third most important export commodity after cacao and refined petroleum products, well ahead of rubber, cotton, and coffee. Gross farmer receipts in 2015 were estimated at US\$400 million, far surpassing cotton (US\$180 million), the traditional cash crop in northern areas. A comparison of net farmer receipts for cashew producers would be even more favorable, given that input costs for cotton are much higher (about one-third of gross receipts). Cashew production becomes even more important when considering its prospects for reducing poverty, especially in the poorer North (Box 3).

**Box 2: Cashew market trends and perspectives**

Global demand for cashew nuts has been growing at a compounded annual growth rate (CAGR) of 8.3 percent for the five years to 2015 and 7.8 percent for the fifteen years to 2015 (see Annex 5). Production has not kept pace, growing at a five-year CAGR of 4.2 percent and a ten-year CAGR of 3 percent. Côte d'Ivoire has been the star performer in production growth with a five-year CAGR of almost 13 percent, compensating for declining production in Brazil and Vietnam and stagnating production in India. The surplus of the first half of the last decade has turned into a tight supply/demand balance, pushing prices upward at all levels.

**Demand for cashew nuts is expected to grow steadily, albeit more slowly than in the last decade.** Growth markets include the main consumer markets—India, the USA, and Europe, which together represent close to 75 percent of world demand—and emerging markets such as Russia, the Middle East, and China.

9. **Further development of the cashew value chain is stymied by several constraints, especially in processing.** Despite the fast growth in RCN production, with a good theoretical rate of return on investments and of recognized social benefits in terms of job creation, cashew processing has not taken off in Côte d'Ivoire. The country processes less than 7 percent of its production. Installed cashew processing capacity is estimated at 109,500 tons, with less than 50 percent utilization. These numbers reflect the many constraints still faced by investors in developing cashew processing activities in the country: (i) process management resulting in high processing costs; (ii) low labor productivity, (iii) lack of access to investment and working capital finance; and (iv) meeting the increasingly high requirements of consuming countries in terms of reliability of supply, food safety and traceability (see Figure 1 in Annex 1).

10. **Climate change is predicted to impact on the performance of the cashew value chain.** While the trees are generally sturdy, studies indicate that some areas (e.g. Savanes region) may become unsuitable for cashew production because of rising temperatures due to climate change. Associated dryness is projected to increase the frequency and intensity of fires in cashew plantations. On the other hand, because the cashew tree has a well-developed root system and can tolerate drought conditions, it will constitute an optimal alternative crop in areas that are predicted to become drier due to climate change.

11. **The competitiveness of domestic cashew processing in Côte d'Ivoire has been debated for more than a decade.** In principle, domestic cashew processing should be competitive if the right technology was used efficiently by an experienced management and a well-trained labor force. In addition, the growing weight of Côte d'Ivoire in the overall supply of the market and its proximity to both the European and US markets, are attracting the attention of processors and end-users towards Ivoirian producers. The possibility to create shorter, more traceable value chains, is a very powerful incentive for buyers to source their kernels directly in Côte d'Ivoire. Currently, kernels processed in India and Vietnam come from a



variety of sources and reach the European and US markets indirectly, after a long and largely untraceable chain. Local processing thus offers many benefits: (i) it significantly reduces transport costs by eliminating the shipping of raw cashews to Asia for processing and the onward shipping of the kernels to the European and US markets; (ii) it reduces the carbon footprint of the cashew that is sourced from Côte d'Ivoire thereby contributing to climate change mitigation, a global public good; and also curtails soil nutrient mining as cashew residues are retained locally contributing to a buildup of soil organic matter (carbon sequestration). In addition, the more direct route, and the sourcing from a unique producer also permit to better meet the international market's increasing emphasis on traceability from farm to fork. Downstream in the supply chain, food manufacturers and retailers are generally shortening their chains as well (in terms of supply networks and relations), thus working increasingly with a limited number of preferred suppliers (importers and producers) to which they transfer the responsibility for traceability and product safety and quality. Lastly, shorter transportation lines diminish the carbon footprint of the cashew value chain, which is an interesting environment-friendly proposition in a sector where conscience driven purchasing is important and a definite competitive advantage of Ivorian processors.

12. **The government recognizes that an expansion in domestic cashew processing would add value and create jobs.** Development of the cashew value chain is a national priority reflected in the NDP 2016–20 and the National Agricultural Investment Plan (NAIP). In 2013, the government adopted six strategic

**Box 3: Cashew potential for poverty reduction and jobs creation**

Cashew trees are grown by some 330,000 households (impacting more than 1.9 million people) in the poorer, northern half of Côte d'Ivoire, where the cashew crop has become the most important source of rural cash income. Cashew production clearly is a key source of growth in the North, where it can generate inclusive rural employment through farming and rural industrialization. The United Nations Industrial Development Organization (UNIDO) estimated in 2015 that cashew processing could create some 440,000 jobs (of which more than half going to women), delivering more than US\$400 million in wages per year to the local economy. The country would also benefit from the foreign exchange value of those exports, the use of byproducts such as cashew nutshell liquid (CNSL) to produce natural chemicals, and the use of shell residues for energy in rural areas. **To the extent that the government implements its strategy for removing constraints on competitiveness in the cashew value chain, the value of Ivorian cashew exports could grow by 15 percent annually over the next decade.**

pillars for promoting domestic cashew processing. The first pillar is to establish a public agency (Conseil du Cotton et de l'Anacarde - CCA) to coordinate and promote development of these subsectors by regulating their activity, organizing the provision of critical services, strengthening producer associations, and creating a strong entity (an inter-professional body) to manage private actors in all segments of the value chain. The second pillar is to strengthen research programs, produce and distribute improved planting material, and improve technical advisory services on good agricultural practices (GAPs) and harvest/ post-harvest methods to improve RCN quality. The third pillar is to establish

efficient quality management systems and traceability mechanisms, and the fourth is to guarantee a farm-gate price of at least 60 percent of the international Cost Insurance and Freight (CIF) price of RCN. The fifth is to rationalize domestic marketing by establishing a network of licensed warehouses, and the final pillar is to rehabilitate rural roads in the main producing areas. In addition, the Ministry of Industry and Mines (MIM) is implementing a complementary specific set of reforms and policies aimed at developing the processing sector. They include clarifying the regulatory framework, developing public infrastructure, assisting with the procurement of processing technology, and facilitating access to finance. More recently, the Council of Ministers approved the creation by CCA of a dedicated cashew security deposit scheme to the benefit of commercial banks for the funding of stocks of RCNs for domestic processing operations (Annex 1 provides a more detailed summary of these measures).



13. Most of these activities are under implementation, financed by levies on the value chain and support from the IDA-financed Agricultural Development Support Project (PSAC)<sup>2</sup> and International Finance Corporation (IFC). **These activities remain only partially funded, however. Their implementation must be accelerated to respond effectively to the national objective of increasing the percentage of domestically processed RCNs by 2020.**

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

14. **The proposed project is embedded in Côte d'Ivoire's development plans (NDP 2016-2020 and NAIP 2017-2025) and supports the World Bank Group's (WBG's) twin goals of reducing extreme poverty and boosting shared prosperity.** By developing the cashew value chain and strengthening its integration into global markets, the project seeks to establish a substantial source of growth in Côte d'Ivoire's poorest regions, focusing on a smallholder crop that can generate significant rural employment through processing. It is expected that the project will create some 12,000 jobs as part of planned investments in cashew processing<sup>3</sup>. Similarly, foreseen investments in productivity—through improved varieties, training in GAPs, storage technology, and so on—are expected to raise both yields and quality; substantially increasing farmers' income and reducing poverty in project areas. For instance, quality improvements attained through better harvesting and storage should increase prices by 10–15 percent. Processing half of national cashew production would also increase the total value of exports by 20–30 percent.

15. **The proposed project contributes to Côte d'Ivoire's FY16–19 Country Partnership Framework (CPF) and the Performance and Learning Review (PLR) under preparation.**<sup>4</sup> Côte d'Ivoire aims to promote sustainable, inclusive economic growth, along with full productive employment and decent work in agriculture, manufacturing, and selected service sectors. Commensurate with these aims, the CPF proposes to address issues related to low productivity and job creation in agricultural, agribusiness, and manufacturing value chains, including the cashew value chain. The proposed project supports CPF Focus Area 1 (*Accelerating sustainable private sector-led growth in Côte d'Ivoire*) and its Strategic Objective 1 (*Improve productivity in agriculture/agribusiness value chains*) to achieve inclusive growth and reduce poverty. It also supports Strategic Objective 3 (*Improve business regulatory framework and access to finance*) to promote investment in agribusiness and spur entrepreneurship and growth opportunities, especially for SMEs.

16. **The proposed project is well positioned to contribute to Côte d'Ivoire climate change policies, particularly for the agricultural sector, both towards its adaptation as well as mitigation goals as stated in its Intended Nationally Determined Contribution (INDC).** The project is supporting measures that will help farmers mitigate and increase their adaptive capacity to climate change as well as resilience through: (i) institutional capacity-building to carry-out a national research program for higher yielding varieties and sustainable cashew production; (ii) support for farmers' organization which is essential for smallholders to improve their performance and for promoting inclusive and resilient value chains; (iii) strengthening service delivery to farmers through improved extension and advisory services; and (iv) changes in agricultural practices to improve farmers' production and yields, manage the costs and quality of their products, add value through post-harvest operations (storage and primary processing facilities) and access more remunerative markets. Furthermore, the project investment in increased capacity for domestic processing is expected to: (a) reduce the carbon footprint (shorter transportation lines and improved

<sup>2</sup> The Agricultural Development Support Project approved July 16, 2013 (P119308).

<sup>3</sup> Processing about 3–4 tons of RCNs with semi-mechanized technology is estimated to create 1 full-time job. Processing of 350,000 tons of RCNs (about half of current production) using such technology would create about 100,000 full-time jobs in secondary towns of Northern Cote d'Ivoire.

<sup>4</sup> Board approval expected May 16, 2018



logistics management to enable resilient supply chains); and (b) promote more energy efficient industrial building and the use of alternative sources of energy (cashew shell residue).

17. **The project reflects also the agribusiness priorities of the World Bank Africa Region and key priorities of the Bank's Agriculture Global Practice (inclusive value chains, job creation, and partnership with the private sector).** It is consistent with the IFC–World Bank Joint Agribusiness Strategy, which supports agriculture and agribusiness competitiveness in selected value chains by improving access to markets, providing technology and training to smallholders, and reforming sector governance.

## II. PROJECT DEVELOPMENT OBJECTIVES

### A. PDO

18. **The Project Development Objective (PDO)** is to increase cashew productivity, quality and added value, benefiting smallholder farmers and the cashew processing industry in the Republic of Côte d'Ivoire.

### B. Project Beneficiaries and Geographic Focus

19. **The project's primary beneficiaries are smallholders with farms of 2–3 hectares in the poorer northern half of the country.** Cashew nuts are an integral part of their livelihood base and a key source of cash. About 225,000 cashew farmers are expected to benefit directly from project interventions to better organize producers, improve access to modern agricultural technologies (planting material, agro-inputs and post-harvest technology), provide training and extension services, and finance infrastructure (feeder roads and storage/drying facilities). Farmers are expected to raise RCN yields and quality, leading to a substantial increase in income per hectare.

20. **Other important project beneficiaries are cashew processors and traders.** This target group consists of cashew enterprises ranging from small-scale processing units to larger industrial processing facilities with a capacity of 3,000–10,000 tons per year, as well as SMEs involved in storing RCNs. These enterprises will benefit from project interventions to upgrade technology, develop skills, improve access to finance and markets, and develop value-chain infrastructure. These investments in cashew processing are expected to generate around 12,000 direct jobs (of which 50 percent are for women).

21. **The project explicitly targets rural youth.** As in most of Côte d'Ivoire, the population in the North is extremely young and growing rapidly. The challenge is to create attractive job opportunities for the large number of unemployed rural youth in this region and stem the exodus to urban areas. To create income-generating activities for young people in the cashew value chain, the project will train them in post-harvest, processing, logistics, marketing, and management techniques that enable them to provide services such as RCN collection, mechanization, drying, transportation, and equipment maintenance.

22. **Key public institutions will benefit from the project as well.** Project interventions will: (i) build the capacity of CCA to manage and regulate the cashew value chain; (ii) develop specialized cashew extension and advisory services and research and development (R&D) within the Ministry of Agriculture and Rural Development (MINADER); and (iii) support technology and business development services within the Ministry of Industry and Mines (MIM) and the Ministry of Environment (MoE).

23. **Geographical focus.** The target area for the project is the poorer, northern half of the country, extending from the border with Guinea to the border with Ghana (see the map in Annex 8).



### C. PDO-Level Results Indicators

24. **The PDO-level indicators are:** (i) increased cashew productivity in the project area (kg of RCNs per hectare); (ii) improved quality of RCNs exported and received by processors (Kernels outturn ratio in lb. per bag); (iii) increased volume of RCNs processed domestically (tons per year); and (iv) farmers reached with agricultural assets or services (number) of which female beneficiaries (percentage).

### III. PROJECT DESCRIPTION

25. **Key challenges to be addressed and project approach.** Achieving GoCI's objective of enhancing the competitiveness of the cashew sector will require comprehensive interventions at all segments of the value chain from production to export, including the post-harvest and processing segments. For that reason, the project was designed to respond to four key challenges related to the performance of the value chain. One key challenge is to supply quality RCN to processing plants at a competitive cost, which is contingent on overcoming farm-level production challenges by strengthening agricultural extension and developing input supply networks, rural roads, and post-harvest/marketing facilities. A second challenge is to produce quality kernels for export, which is contingent on modernizing processing industries to enhance their capacity to compete based on cost, quality, and a unique positioning responding to growing market demands (food safety, traceability, low carbon footprint, labor practices). Modernization will involve upgrading production technology, strengthening managerial and technical capacities, developing local quality standards, adhering to international standards, and developing capacity for processing byproducts. A third challenge is to improve basic infrastructure for agro-industrial activity—such as access to energy, road networks, and technology centers—which is particularly essential in the disadvantaged North. A fourth challenge is to tailor supportive measures for SMEs, including facilitating access to finance, tax and other policy adjustments, to enhance their interest in domestic processing and generate more jobs for the young people who are entering the labor force in ever greater numbers.

26. **To address these challenges, the project will support investments at critical points along the value chain to:** (i) increase farm-level productivity of RCNs, improve quality, and reduce collection and aggregation costs; (ii) accelerate private investment in new storage and processing capacity (including byproducts) by facilitating access to finance and providing specific physical infrastructure that lowers the initial cost of investment and increases operational efficiency; (iii) improve the policy and regulatory framework for the sustainable development of the cashew value chain, while building capacity in all of its functions (technical and managerial skills, knowledge and innovation, including through proactive attraction and retention of investors and their technical know-how); and (iv) facilitate market development and trade (including proactive linkages with global buyers).

27. **Climate co-benefits.** In developing these interventions, the project will seek to derive maximum climate co-benefits (triple-wins) through: (i) sustainable increases in cashew production and farm incomes (*Productivity*); (ii) resilience of farmers' livelihoods to climate change and variability (*Autonomous Adaptation*); and (iii) low Greenhouse gas (GHG) emitting cashew supply chain (*Mitigation*), by: (a) reduced GHG emissions per unit of cashew produced, (b) reducing the tonnage of shipment of RCN to Asia (about 2,000,000 tons), thus avoiding emitting GHGs due to transport (shipping), and (c) increased carbon sequestration using the cashew crop as carbon sinks.

### A. Project Components

28. The proposed project complements current GoCI cashew sector policies and programs, and reflects lessons from the WBG agriculture portfolio (PSAC and IFC projects) and recent analytical work in Côte



d'Ivoire. It will pursue a strong collaboration with IFC and cluster its activities around three technical components; a fourth component focuses on management and monitoring (see the detailed description of these components in Annex 1).

### **Component 1: Institutional Strengthening and Value-Chain Governance (US\$14.43 million)**

29. Component 1 aims to improve the organization and governance of the cashew value chain to reduce marketing costs and ultimately enhance competitiveness and inclusiveness of small-scale farmers. To this end, the project will support a mix of interrelated interventions for strengthening the key organizations engaged in the value chain; creating favorable conditions for business development by removing administrative obstacles and enhancing the ability of Côte d'Ivoire to attract new investors; and providing better tools for decision making and planning, including in relation to climate change related risks. Building on PSAC/IFC activities, the project will finance the following main interventions.

30. ***Build the capacity of the key organizations overseeing the value chain—the CCA, the Ivorian inter-professional body coordinating private actors in the cashew industry, cashew producers' organizations, and the Directorate of Professional Agricultural Organizations (DOPA).*** CCA will receive general support for its organizational development, capacity building to lead and manage stakeholder processes, and training in quality control and marketing. CCA will also be equipped with a geo-referenced management information system (MIS) to allow better planning and management of value-chain operations, including knowledge management and decision-making in response to climate change related risks. Support for the ***inter-professional body*** will include the promotion of services to members, such as technical advisory services, the sourcing of equipment and goods in bulk, and communicating with political decision makers on issues relevant to the industry. Aside from building administrative and managerial capacity, the project will provide specialized technical assistance (TA), transport equipment, and office/IT equipment, in addition to support for forums, exchange visits, and startup operating costs (recruitment of personnel, rent of head office, and so on). Support for ***cashew producers' organizations and their unions*** will include the legal registration of such organizations and technical and managerial training for their officials in areas such as good governance, operational management, financial and auditing techniques, business development, marketing plans, and creditworthiness. This training will make use of the IFC Agribusiness Leadership Program (ALP), which is based on SCOPEinsight<sup>5</sup> assessments and integrates classroom training and coaching to improve the management skills and professionalism of farmer organizations. The unions will be equipped with transport and IT equipment and support to facilitate the organization of their annual assemblies. ***DOPA*** will receive support to help in the process of organizing cashew value chain actors into professional entities, establishing the cashew industry inter-professional body and supervision of cashew producer organizations' accounts. Support will include TA (for specialized expertise), operational costs, the organization of workshops, and IT equipment. All equipment to be procured will be compliant with best practice in energy efficiency.

31. ***Improving the business environment.*** The cashew industry in Côte d'Ivoire faces market failures that must be addressed if it is to develop and contribute to economic growth, job creation, and poverty reduction. The project will address these market failures through three inter-related activities. The first activity is to ***assess the value-chain regulatory framework*** with the aim of streamlining regulations to sell, buy, and trade cashew products and hence reduce marketing costs. The assessment will involve studies

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<sup>5</sup> SCOPEinsight, a standard gap analysis and baseline assessment tool used by IFC, provides comprehensive insight into the strengths and weaknesses of a farmer organization on all dimensions assessed, as well as basic organizational, production, and benchmark information.



and diagnostics of current procedures compared to those in competing markets and countries; the identification of opportunities and measures for simplification, digitization, and streamlining; and the testing and implementation of such measures. The second activity is to **support MIM in the assessment and implementation of measures to improve the business environment**, such as fiscal incentives,<sup>6</sup> together with the establishment of a fast-track mechanism for processing investment incentives. The third activity is to **support the National Environmental Development Agency (ANDE)** to ensure that all cashew processing enterprises meet environmental and social standards, and to simplify procedures and reduce the cost of obtaining environmental permits.

32. **Strengthening contractual relationships between value-chain actors and facilitating access to finance.** The project will support the development of sound contractual relationships between producer groups, processors/buyers, and banking institutions. This effort will include: (i) developing contract documents tailored to conditions in the cashew value chain; (ii) conducting workshops to sensitize all actors about the benefits of such contracts and the need to ensure compliance in implementing them; and (iii) educating bankers on the nature of the businesses within the value chain. A key activity will be to accelerate implementation of warehouse receipt system (WRS) regulations recently adopted by the government by building capacity in the WRS Regulatory Authority (ARRE). The project will also support the implementation of measures to enhance farmers' access to financial services such as channeling payments for RCNs to farmers through (mobile) accounts, development of information registries about farmers' historical RCN production/delivery to provide to formal lenders (via the MIS cited above), and measures to facilitate the deduction of loan payments from the proceeds of cashew production.

33. **Access to knowledge.** The project will strengthen the Cashew Innovation and Technology Center (CITA) being established in Yamoussoukro. CITA is to provide advisory services (technical and business advice) and undertake R&D and innovation for the cashew processing industry, with the following responsibilities: (i) train cashew managers and entrepreneurs in cashew process management, quality management systems, and business management; (ii) train cashew factory floor supervisors and workers in the industrial process, including elimination of waste and maximum recovery of by-products; (iii) provide advice on procurement of cashew processing equipment and methods; (v) support the development of Hazard Analysis and Critical Control Point (HACCP) or equivalent at every cashew processing plant in cooperation with other state agencies and IFC; and (vi) develop awareness of the uses of by-products from processing (cashew shells, CNSL, and testa), including their use as an alternative source for energy production (cashew shells). The project will finance capacity building for CITA, including technical expertise, processing and laboratory equipment for demonstrations and training, staff training, building rehabilitation/expansion and logistics/IT equipment.

### **Component 2: Productivity Enhancement and Improved Access to RCN Market (US\$57.83 million)**

34. This component seeks to increase on-farm cashew productivity and improve access to the market for RCNs. The expected outcomes are: (i) an increase in the volume and quality of marketable RCN, which is predicted to increase farmers' incomes and reduce poverty; and (ii) climate change mitigation and adaptation benefits derived from improved cashew crop management (on approximately 675,000 ha). An estimated 225,000 small-scale farmers will be targeted. The following interrelated interventions will be financed:

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<sup>6</sup> For example, duty exemptions on capital expenditures for processing equipment and on spare parts and consumables, and the subsidy based on kernels processed locally.



35. **National cashew research.** The project will promote a cashew research and seedling development program in partnership with the National Center for Agronomic Research (CNRA) and other national research institutions and universities. It will finance: (i) support for implementing the National Cashew Research Program (PNRA), with a focus on testing and cataloging high-performing trees for multiplication; (ii) producing new germplasm that is resilient to climate change; (iii) a feasibility study, construction, and equipment of a specialized laboratory for in-vitro production of improved planting material; (iv) strengthening human resources in cashew research by funding specialized training of various kinds, especially in plant genetics, variety development, and plant protection; (v) technology testing, technology transfer, and the dissemination of research results, including exchange seminars and workshops and demonstration trials; and (vi) logistics and IT equipment. The project will also promote a research partnership program with the Brazilian Agricultural Research Corporation (Embrapa), the Vietnam Cashew Research and Development Center (CRDC), Naliendele Agricultural Research Institute (NARI) in Tanzania, the Indian Directorate of Cashew Research (DCR) and the World Agroforestry Centre (ICRAF).

36. **Seedling development program.** To replace aging cashew trees, the project will establish a nursery system to produce seedlings from the best quality seed in Côte d'Ivoire. The nursery system will be developed in partnership with the private sector, including youth agri-enterprises and farmers specialized in seedling multiplication (village nurseries). More specifically, the project will finance: (i) seed for supplying nurseries and planting material (seedlings and grafted plants); (ii) training nursery operators in plant production, handling, storage, and distribution (private and public-sector staff, including research staff); and (iii) equipment and inputs, especially for the establishment of village nurseries.

37. **Cashew extension services and technology transfer.** The project will provide support to strengthen the extension program implemented by the National Agency for Rural Development (ANADER) and scale it up to reach the entire project area. The program will focus on training farmers in GAPs for cashew production and quality management, including post-harvest handling. Dedicated Cashew Development Centers (CDCs) will be established to offer training and advice to cashew producers through traditional extension methods as well as e-extension. The project will finance: (i) the establishment of eight CDCs (at least two in each of the three agro-ecological zones for cashew production) through the rehabilitation, expansion, and equipment of existing MINADER extension units; (ii) training for CDC staff in GAPs, encompassing tree establishment techniques; planting densities; ideal intercropping combinations; maintenance and improvement of cashew orchards; pruning; harvesting; post-harvest storage and quality control; pest and disease management; soil conservation, mulching, and green residues (with attendant climate change adaptation and mitigation benefits); fire prevention (a major problem for farmers, which is predicted to be aggravated by climate change); economic principles and market orientation related to farming as a business; marketing; budgeting; credit application and logistics; and environmentally safe use of pesticides adapted to local needs; (iii) development and dissemination of related extension materials in various formats (technical and economic guides, TV and radio); (iv) piloting of an e-extension service with a focus on content, presentation, and the most effective delivery modes for meeting the needs of cashew producers; and (v) provision of facilities to multiply seedlings, as well as equipment to facilitate extension outreach to farmers (vehicles and motorcycles, IT, and audio equipment). These interventions are expected to derive climate co-benefits in terms of improved management of cashew plantations by farmers and resulting improved existing carbon pools and biomass growth.

38. The CDCs will serve as the base for this training, but given the considerable area covered by the project, a training network extending across the large population of cashew farmers will need to be established. To do so, the project will identify and support advisory service providers, including youth



agro-enterprises and model farmers, who will organize field days and training events. These providers will be equipped to reach out to farmers and be paid for the services they provide.

39. **Rehabilitation and maintenance of feeder roads.** The poor road network is a major constraint on access to markets for smallholders producing cashew in several parts of northern Côte d'Ivoire, leading to the deterioration of RCNs and high transportation costs. The project aims to alleviate these constraints through a feeder road rehabilitation and maintenance program. This program will follow the National Rural Road Development and Maintenance Strategy (SNERR), which features a partnership between the State, inter-professional bodies, and private operators to select roads that are high priorities for rehabilitation/maintenance or construction, and the co-financing of these activities. Following an inventory of rural roads in project areas, a rural road improvement program will be developed jointly by CCA and AGEROUTE (the national road management agency), focusing on priority roads in areas where cashew production is high. The project will finance the rehabilitation of 300 kilometers of feeder roads involving heavy reprofiling and treatment of critical bottlenecks in selected spots (small bridges and culverts); continuous repaving of 200 kilometers of feeder roads; and maintenance and light reprofiling of all rural roads over the duration of the project (in total approximately 1,600 kilometers). The rehabilitation program of the feeder roads will incorporate measures to adapt to climate change risks, including basic drainage infrastructure, increasing vegetation buffers between the road and bushland, and maintenance of verge vegetation. To the extent possible, road work will involve labor-intensive methods to provide local employment. The work program will include technical studies as well as environmental and social impact assessments and mitigation measures. To ensure the sustainability of this investment, a community-based road maintenance strategy will be developed and road maintenance associations will be formed and strengthened at the community level. These associations will receive low-cost hand tools and equipment to undertake routine maintenance.

**Component 3: Support to Private Investment in Post-Harvest and Processing Infrastructure (US\$196.25 million, including US\$111.00 million IBRD and US\$85.25 million beneficiary contribution)**

40. This component aims to increase the volume and value addition of locally processed RCNs through an integrated mix of interventions at three levels: (i) support to the cashew storage and processing infrastructure; (ii) increased access to investment capital and risk management instruments for cashew value chain participants; and (iii) development of cashew markets and trade. It will also lead to climate change co-benefits derived from a number of activities: (a) use of cashew shells as an alternative source of energy in rural areas; (b) reduced carbon footprint due to improved management of the supply chain—lesser tonnage of RCN shipped to Asia (India and Vietnam) and economic load-size within the country; and (c) rehabilitation/construction of energy efficient industrial buildings for storage and processing.

41. **Development of storage infrastructure.** As Côte d'Ivoire transitions towards processing a much larger share of RCN production, investments in warehouse facilities designed to international standards are needed to provide adequate storage capacity and preserve the quality of RCNs and processed cashew kernels. These investments in post-harvest infrastructure will improve returns throughout the value chain (farm, processing, storage and export). The project will co-finance 50 percent of the investment in warehouse facilities by private operators (about 190,000 tons) through its Dedicated Financing Facility (DFF, see para. 47 below). It will also finance preparation of a Cashew Warehouse Keepers Handbook (a guide to the management and handling of raw cashew nuts from intake to the first processing stage) and a series of regional workshops to train warehouse managers in best practices for warehouse management. Activities related to post-harvest infrastructure will be implemented under the supervision of CCA and ARRE, taking into consideration individual and/or collective warehouse investment subprojects.



42. **Development of cashew processing infrastructure.** Through this activity, the project addresses the critical lack of infrastructure that limits private investment and hinders the development of a competitive and inclusive cashew processing industry in Côte d'Ivoire. It supports the establishment of four cashew processing platforms (CPPs) and eight cashew service hubs (CSHs) which will be designed in line with best practices for energy efficiency and construction material more resilient to the impacts of climate change.

43. **Cashew processing platforms.** Based on demand from private investors, the project will develop in a phased approach, four integrated cashew processing platforms in the major producing areas of northern Côte d'Ivoire<sup>7</sup>: Bouaké (Center North), Bondoukou (North East), Korhogo (North), and Séguéla (Center West). Serving as flagships for the subsector and new investors, these platforms will feature process excellence, innovation, byproduct efficiency, high quality staff management, processing at different scales, and value added activities (see Figure 5 in Annex 1 which illustrates the concept of the integrated processing platform). The project will finance the development of each site, including: (i) site identification and assessment based on criteria such as access roads, site-specific risks, key cost factors, and private sector interest; (ii) conduct detailed technical and economic feasibility studies for developing the platform, followed by master planning and development, a business development plan, environmental and social safeguards, and so on;<sup>8</sup> (iii) construct the platform's critical shared infrastructure (access and internal road network, electricity, communications, and water supply) and common services (such as an administration building, storage facilities, workshop, quality control laboratory, waste disposal, and so on); (iv) conduct an investment promotion campaign for the site, including the development and implementation of an aftercare program for the retention and expansion of cashew processing investors; and (v) establish its management structure.

44. **Cashew service hubs.** The project will establish a network of eight subregional satellite centers (two for each cashew processing platform). These service hubs will serve as outreach buying points for the processing platforms as well as distribution points providing farm inputs to cashew growers. Through these hubs, farmers in outlying districts will benefit from linkages to processors and gain access to training, market information and inputs. Each CSH will have a warehouse for raw materials, a drying yard, a small storage facility for inputs (jute bags, tarpaulins, approved pesticides, and fertilizer) and will be staffed by trained personnel. Although the CSHs are part of the procurement and supply chains for the processing platforms, the end-users pay for their services, which should allow them to be self-supporting.

45. **Access to investment capital and risk management instruments.** Evidence indicates that Côte d'Ivoire experiences a shortage of financing for agro-industry in general and for the cashew value chain in particular. The project seeks to alleviate this constraint by improving access to finance for the domestic cashew industry participants by: (i) providing technical support to Partner Financial Institutions (PFIs) to build their operating capacity regarding sector knowledge and expertise; (ii) establishing a Dedicated Financial Facility (DFF) for long term investment funding; and (iii) contribution to CCA's Security Deposit Scheme (SDS) for short-term credit facilities to processors to acquire RCNs.

46. **Support to Partner Financial Institutions.** The project will provide TA to PFIs for the following purposes: (i) *build PFI operating capacity* for lending services and development of new financial instruments for the benefit of the agro-industry in general and ensuring that PFIs work closely with cashew

<sup>7</sup> These regions are not exclusive of other areas which may be potentially of more interest to private investors.

<sup>8</sup> Sites for the Bouaké and Korhogo platforms have been identified and the pre-feasibility studies for these sites are being finalized. Consultations with investors are being conducted to determine their needs. The MIM and CCA have so far received Letters of Intent for investment in cashew processing amounting to a total capacity of 230,000 tons.



industry participants; and (ii) *advisory support to investment cycle*: this support concerns assistance to PFIs for the development of the services they provide to cashew industry investors to increase the 'bankability' of their operations, including preparation of sound business plans, appropriate choice of technology, support for procurement, etc., and the corresponding preparation of loan applications.

47. *Dedicated Financing Facility*. The proposed loan will fund a project budget line (DFF) to provide a partial support to cashew operators to finance their investments. The DFF will target (i) domestic cashew enterprises that need financing to upgrade or modernize their existing storage and processing facilities, as well as (ii) other private sector players involved in the value chain, including very small enterprises operated by women and youth. The DFF will operate through three distinct windows: (i) **Window A**: the project will provide Collateral Enhancement Grants (CEGs) for post-harvest (storage and processing) investment Sub-Projects (25 SPs of average individual cost ranging from US\$250,000-300,000; the CEGs will be deposited in an escrow account in the name of beneficiaries at eligible PFIs to serve as a cash collateral for PFIs to issue their own credit for up to 80 percent of the sub-project cost; this credit will be extended at the market rate; the beneficiaries will make a cash contribution of at least 20 percent of SP costs; once the loan is repaid, beneficiaries will be entitled to draw on the deposit; (ii) **Window B**: the project will provide Matching Grants (MGs) for small cashew storage investment sub-projects (320 SPs of average cost of US\$25,000 each) to finance 50 percent of eligible costs; the MGs will be passed on directly to beneficiaries to finance eligible investments; the beneficiaries will need to provide evidence of having secured a loan from a PFI for 30 percent of sub-project costs; and (iii) **Window C**: the project will provide MGs for small investment initiatives or micro-projects mostly operated by youth and women, to cover up to 80 percent of eligible costs; there will be no obligation to resort to PFI funding to secure the grant. These micro-investments are expected to lead to climate co-benefits as they will finance small equipment to improve management and production of cashews/agroforestry and support the establishment of new plantations on non-forested lands.

48. *Security Deposit Scheme (SDS)*. The project will contribute US\$13.5 million to the dedicated cashew Security Deposit Scheme approved by the Council of Ministers on December 14, 2017. This scheme aims to alleviate the financial constraint faced by domestic processors to fund their RCN stocks: acquisition of stocks represents a large expense for processors bearing in mind that the crop is collected over four months and processed all year long. It is also meant to help local banks to become more familiar with the cashew nut processing business in general as well as cashew nut processors.

49. Project funds will be deposited on escrow accounts in favor of PFIs as security deposit to guarantee up to 25 percent of the corresponding loans issued by eligible PFIs. These loans will be extended at prevailing market rates (currently 10 to 12 percent) through PFIs' regular lending procedures. The processors make their requests for security deposit to CCA. Processors who submit themselves to an independent technical and financial audit through CCA may become eligible to access the SDS. Once the processors have repaid the loans, the security deposit will be used to guarantee additional loans to other eligible beneficiaries. Details regarding the operation of the SDS will be defined in a specific operational manual whose elaboration will be a condition of disbursement to SDS.

50. *Market development and trade*. This activity aims to support the effective development of domestic, regional, and international markets for cashew products, particularly kernels. It will conduct a study of opportunities for marketing cashew products (and byproducts) locally and internationally, and conduct a branding and marketing campaign through mass media (telephone, TV, radio, billboards, newspapers) to promote cashew consumption among consumers in Côte d'Ivoire and the subregion. An Ivorian brand of kernels, eventually to be managed by CCA, will be promoted through international trade



fairs. Principles of quality control and food safety in processing and marketing RCNs will be promoted as well, including Good Manufacturing Practices (GMPs) and Good Hygienic Practices (GHPs), as well as food safety management standards such as HACCP. A market information system will provide timely and accurate information on prices for RCNs and processed kernels to all stakeholders. The system will include: (i) price data collected at the farm, factory, and warehouse gate levels, ports, and major trading places (such as India); (ii) a price information service reachable by everybody via telephone and internet; and (iii) the continuous analysis and publishing of market intelligence. To improve the efficiency of marketing RCNs, the project will support efforts to devise ways for producers and processors to gain more direct access to international buyers for raw nuts and kernels and vice versa. CCA will implement these activities in close liaison with the Ivorian cashew interprofessional body, MIM, and MINADER.

**Component 4: Project Coordination, Monitoring, and Knowledge Management (US\$16.74 million)**

51. Component 4 will facilitate: (i) administrative, technical, and financial management of the project; (ii) coordination among all institutional partners to ensure the efficient flow of information and support to all value-chain actors, particularly small-scale cashew growers and the processing industry; (iii) effective contractual arrangements with key State implementing partners— in particular the Inter-professional Fund for Agricultural Research and Advisory Services (FIRCA)—as well as private sector operators; (iv) monitoring and evaluation of the project’s performance on procurement, financial management, environmental, and social impact; and (v) development of communication activities to publicize and disseminate project results, best practices, and success stories. This component will be implemented by the Project Coordination Unit (PCU) under the oversight of the Project Steering Committee (PSC). For details on institutional arrangements, see Annex 2.

**B. Project Cost and Financing**

52. The project will be financed over five years (2018–23) through an Investment Project Financing (IPF) of US\$285.25 million with an IBRD Enclave loan of US\$200.00 million (Table 1). The balance (US\$85.25 million) represents the contribution of private agribusiness and cashew processor’s contributions to the MGs/CEGs for subprojects and private investments into the cashew processing platforms. The borrower is the CCA which has requested that the loan be in Euros under the loan Single Currency Lending Program. The Republic of Côte d’Ivoire is the Guarantor of the loan which is on IBRD-Enclave terms with a maturity of 30 years, including a grace period of 2.5 years.

**Table 1: Project costs by component and source of financing (US\$ million)**

Project component	Project cost	IBRD	Beneficiaries
1. Institutional Strengthening and Value-Chain Governance	14.43	14.43	0.00
2. Productivity Enhancement and Improved Access to RCN Market	57.83	57.83	0.00
3. Support to Private Investment in Post-Harvest and Processing Infrastructure	196.25	111.00	85.25
4. Project Coordination, Monitoring, and Knowledge Management	16.74	16.74	0.00
<b>Total costs, including contingencies</b>	<b>285.25</b>	<b>200.00</b>	<b>85.25</b>

53. **Rationale for World Bank funding of the proposed project using the IBRD Enclave.** As per Bank Policy, IBRD may extend investment project loans for projects in IDA-only countries, subject to credit enhancement features that adequately mitigate IBRD’s credit risk. IBRD provides enclave investment



project financing: (i) for projects that are expected to generate large economic benefits with significant developmental impact in the member country; and (ii) for projects that cannot be fully financed out of the country's own resources, IDA resources, or other concessional financing resources. The proposed IBRD Enclave loan complies with these policy requirements. Annex 6 summarizes the terms and conditions that are included as part of the loan documentation to ensure that IBRD's credit risk is sufficiently mitigated by the security arrangements of the loan.

54. **Maximizing Finance for Development - cascading effect.** The project design explicitly acknowledges the key role of the private sector in sustaining the development of the cashew sector and focuses on private sector solutions where they can help achieve development goals. The fundamental project premise is that the development of the cashew sector depends on promoting private initiative and only use the scarce public funds where they are most needed. To support private activity, a key project design feature is to facilitate access to critical industrial infrastructure and the promotion of access to commercial credit through close partnership with PFIs under the project-supported DFF and Security Deposit Scheme. These two instruments build upon a strong collaboration with IFC that did important groundwork on risk sharing mechanisms in Cote d'Ivoire, particularly the warehouse receipt system used as a means to provide collateral through inventories. They also aim to give PFIs incentives to expand their business in areas in which they have been reticent to lend up to now. This objective will be achieved through a 'cascading' effect whereby the project-provided grants and SDS will serve as collateral enhancement to leverage PFI financing, hence addressing the challenge of providing increased investment and inventory funding to cashew value chain participants. Under the proposed financing instruments, PFIs will be closely associated with project-targeted investors, all along the investment cycle, starting with the preparation of the proposal to be vetted by the PFI's own loan committee, to the entire investment implementation and loan repayment period. The above mechanisms not only require the investor to develop an objective and realistic business plan but also to manage his/her investment implementation and corresponding credit agreement in a rigorous way. In that respect, the loan repayment performance of the investor is decisive to allow new rounds of credit, hence insuring the long-term sustainability of relationships between PFIs and investors.

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

55. **Lessons from current and past operations in Côte d'Ivoire suggest the need for strong government ownership, commitment at the highest level, effective coordination among government entities, and active involvement of sector stakeholders (especially, in this case, RCN processors and sector support institutions).** The project was designed in close cooperation with the GoCI under the leadership of the Prime Minister's Office (PMO), with line ministries (MINADER and MIM) and entities such as CCA and FIRCA. The PMO's steering role in designing the project facilitated consensus among the government entities involved. Private operators engaged in processing are at the core of the project's strategy and they were consulted to ensure that project components reflect priorities in the cashew value chain. These operators are key to increasing domestic value addition and reaching the government's goal of at least 50 percent domestic processing of RCNs. They will receive incentives through the enabling policy environment and in the form of effective technical and financial services and infrastructure.

56. **Previous experience also indicates the value of anchoring the project in past and ongoing efforts, addressing gaps, and scaling up successful pilot interventions.** Close alignment with national initiatives is a vital guiding principle in the project strategy to avoid duplication and isolated interventions. The proposed project builds on and complements interventions in the RCN subsector by MINADER and MIM under NAIP and the National Program for Industry Restructuring and Upgrading (PNRMN). It includes



plans to scale up pilot interventions in the production and processing segments of the value chain, and builds on steps taken by the government to improve the business environment, including registration of RCN buyers, control of informal exports, and taxation of RCN exports. To the extent feasible, the project will channel technical and financial support to the subsector through implementation mechanisms set up by Ivorian authorities. The cashew processing platforms in Bouaké, Korhogo, Bondoukou, and Séguéla are an integral part of the government's Industrial Zone program.

**57. Effective cooperation among development partners supporting the cashew subsector generates collective efficiencies, enhances impact, and avoids overlapping efforts.** Scope exists to deepen coordination and cooperation among development partners involved in cashew value-chain development, including Technoserve and the Competitive Cashew Initiative for capacity building along the value chain. This project represents a major injection of resources into the subsector, well beyond those available so far, yet it stands to benefit from expertise, lessons, and tools developed under related previous and ongoing initiatives and will seek effective synergies with other development partners active in the subsector. Similar scope exists to build on pilot efforts under the EU-funded and UNIDO-executed project in industrial upgrading (which ended in 2014), including market studies, support for collective action by RCN processors, and cashew export promotion, as well as African Development Bank (AfDB) support (2015–19) for enhancing industrial competitiveness. Whereas the AfDB effort focuses on fruits and vegetables, scope for cross-fertilization with the cashew subsector exists with respect to horizontal upgrading/export development interventions. The project will pursue opportunities for coordination with AfDB's agro-pole project (North), to the extent that objectives coincide for developing infrastructure, promoting investment, and enhancing agro-industries.

**58. Several safeguard lessons learned from the implementation of projects in Africa and recommendations identified in the Global Gender-Based Violence Task Force Report<sup>9</sup> are embedded in the project design.** While recognizing that addressing GBV and sexual exploitation and abuse (SEA) risks are a highly complex matter and can never be fully eliminated, the project design includes several key actions to pre-empt and protect local host communities, such as enhanced upfront risk assessment; better defined contractor and consultant obligations, adopting a mandatory workers' Code of Conduct with stringent compliance requirement, robust mechanism to ensure feedbacks from citizens and actors.

**59. Finally, synergies within WBG are important to create effective linkages with PSAC, IFC operations, and PIDUCAS<sup>10</sup>.** PSAC aims to improve smallholders' access to technologies and markets and enhance governance of key value chains, including cashew processing in central and northern Côte d'Ivoire. Cooperation with IFC will be enhanced through support for business planning and financing instruments for equipment and working capital. Synergies with PIDUCAS will be sought in agribusiness and trade logistics to position Bouaké as a trade hub, as well as activities supporting rural cooperatives to access markets. The project's coverage and size offer an opportunity to build on, use, and scale up most current and previous interventions in the cashew subsector as well as related cross-sectoral support.

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<sup>9</sup> Gupta, Geeta Rao, Sierra Katherine. 2017. *Working together to prevent sexual exploitation and abuse: recommendations for World Bank Investments projects* (English), Washington, DC, World Bank Group).

<sup>10</sup> *Projet d'infrastructures pour le développement urbain et la compétitivité des agglomérations secondaires (CI-Infrastructure for Urban Development and Competitiveness of Secondary Cities – P151324).*



## IV. IMPLEMENTATION

### A. Institutional and Implementation Arrangements

60. The institutional arrangements for the project (fully described in Annex 2) are organized around the following functions: (i) oversight and orientation by a PSC; (ii) overall coordination of project activities and partners by the Cotton and Cashew Council, through a PCU; (iii) management of the Designated Account and fiduciary responsibilities, entrusted to FIRCA; and (iv) technical execution of project activities, vested with strategic government entities – Project Implementing Agencies (PIAs). The Project Implementation Manual (PIM), to be prepared by FIRCA and finalized by project effectiveness, will detail all coordination, management, implementation, monitoring and evaluation (M&E), and reporting functions.

61. The main functions and responsibilities of the PSC are to: (i) advise the project on strategic directions and supporting activities; (ii) approve the Annual Work Plan and Budget (AWPB); (iii) ensure effective collaboration and cooperation between all key stakeholders; and (iv) review the PCU's Implementation Progress Reports (IPRs), advise on the effectiveness of ongoing activities, and advise on any adjustments needed in the Annual Work Plan. The PSC will be chaired by the President of CCA Board and comprise officials from central and sector ministries and entities involved in implementing the project. The committee will include representatives of the private sector/PFIs, cashew producer organizations, and civil society so that they may contribute to good governance and voice their concerns as needed.

62. A self-standing PCU, with the support of dedicated personnel and a few PIAs, will oversee planning and budgeting of project activities and execute the approved AWPB. It will also oversee subproject agreements and Memorandums of Understanding (MoUs), technical supervision and quality control, gender inclusion, environmental and social safeguards (particularly resettlement), and M&E. To ensure rapid startup and avoid delays while the PCU being established, the PCU for the West Africa Agriculture Productivity Program (WAAPP, P117148), domiciled within FIRCA, will initially have overall responsibility for managing and coordinating project activities, including procurement and financial management and the daily management of the Designated Account. Thereafter, a newly established PCU within CCA will take over all functions, apart from the fiduciary function, which will remain entrusted to FIRCA.

63. The PCU will be headed by the Director General of CCA, who will act as overall project coordinator. S/he will be assisted in day-to-day project operations by two technical operation managers (one for on-farm production and the other for industrial processing). The project coordinator will sign performance-based MoUs, conventions, or contracts on behalf of CCA, *inter alia* with FIRCA for fiduciary management (procurement and financial management) and with PIAs for activities that fall under their mandates. The project will seek technical support from the following PIAs: CNRA for agriculture research activities and production of seedlings, ANADER for extension activities, DOPA for support to professional organizations, AGEDI for promotion of the cashew dedicated processing platforms, BNETD for preparation of technical studies, and AGEROUTE for rehabilitation of feeder roads. The PCU will also contract private service providers as needed for cross-cutting activities such as investment promotion, training, institutional development of the inter-profession, producer group organizations, etc.

64. CCA and FIRCA have already initiated activities to establish the new PCU, such as drafting terms of reference for recruiting key project staff and developing the PIM, which will include fiduciary procedures. A Project Preparation Advance (PPA) mobilized for that purpose is managed by FIRCA. The remaining undisbursed balance will be used to fund the (i) preparation of the Project manuals; (ii) competitiveness, market and feasibility studies, (iii) technical industrial studies; (iv) analytical studies; and (v) acquiring IT



equipment, including software, office furniture and supplies and a vehicle for the Project. The refund of the PPA will be done pursuant to Section 2.07 (a) of the General Conditions.

## B. Results Monitoring and Evaluation

65. The proposed project will implement a robust M&E system to monitor and evaluate the project's performance indicators as defined in the results framework (see Section VII). The system will collect and process high-quality data and allow the Bank and government to assess progress and react immediately should any issues arise. To collect data, the M&E system will use a mix of conventional approaches and participatory methods involving beneficiaries and other external stakeholders. It will serve both as a day-to-day management tool and as a mechanism to assess project impacts. The system will support supervision by ensuring that baseline and follow-up surveys and data for key performance indicators are available and regularly updated. By linking technical and financial data on the project's progress, the system will pave the way for developing a comprehensive MIS.

66. The PCU will oversee M&E and compliance with the agreed reporting requirements. It will provide support to the internal M&E systems of participating cashew value-chain institutions by assisting them with data collection, management, and analysis, including development of computerized data management and membership mapping system. The PCU will prepare aggregate M&E reports every six months covering project physical implementation and results monitoring. These reports will serve as the basis for semi-annual progress reports to be circulated to sector ministries and development partners. The progress reports will also inform the semi-annual joint supervision missions fielded by the Bank and government to ensure compliance with legal covenants and assess the status of project implementation and results. They will also be important inputs for the Mid-Term Review, to be conducted no later than three years after the first disbursement, as well as the final independent evaluation, to be conducted in the last semester of implementation to assess overall achievement of expected project results.

67. The M&E manual will provide details regarding the definition of the results framework, the methodology and instruments to be used for data collection, the institutional arrangements for M&E functions (identification of actors and definition of their respective responsibilities), the Grievance Redress Mechanism, and the mechanism to be used for disseminating information. M&E results will inform a communication strategy that will be developed and implemented by the PCU. A baseline survey will be conducted during the first year of implementation to verify and complete the baseline data and targets presented in the results framework. The project will use specialized M&E software for data collection and processing. An M&E specialist located at the PCU will be responsible for all project M&E activities. S/he will be assisted by three M&E assistants located in the three project regional areas.

## C. Sustainability

68. The sustainability of the project is predicated on the following major considerations: (i) strong government commitment to promoting the development of the cashew value chain; (ii) a highly participatory process of project design and implementation, giving a prominent role to the private sector in decision making; (iii) a focus on the intrinsic viability of planned investments, based on high value addition; and (iv) a strong capacity-building program, including strengthening of cashew value-chain organizations and training of key actors involved in regulating and managing the value chain.

69. GoCI is strongly committed to the proposed project and its objectives. As discussed, the project is anchored in key national policy and development programs, including NDP, NAIP, and PNRMN. In addition, the government has a clear strategic vision and set objectives for enhancing the productivity and



competitiveness of the cashew subsector, with a focus on increasing domestic processing by giving the private sector a prominent role.

70. The proposed project was prepared through a highly participatory process that included consultation workshops with a full range of partners and stakeholders (government, cashew industry, banking sector, producers, development agencies, and others). This consultative process enabled the project team to draw on different areas of expertise, consider all technical and institutional views, build consensus on the PDO and intermediate results, ensure that the selected indicators would measure the desired outcomes, and build stakeholder ownership. This consultative process will be pursued throughout the project implementation to maintain the shared vision and collaborative relationships forged during preparation.

71. The intrinsic viability and centrality of the private investments for the success of the proposed project has received considerable attention. The project responds to private sector needs by promoting profound changes in the technologies and efficiency of cashew production, processing, and marketing, as well as more coherent coordination across the value chain. It will support financially viable private investments in production, storage, processing, and trade, which will increase productivity and value addition in the cashew subsector, and in turn generate substantial additional income, employment, and social benefits at the farm, processing, and service provision levels.

72. To ensure sustainability, the project will strengthen the capacity and governance of key subsector actors, including the CCA, inter-professional organizations, and producer organizations by instilling technical and managerial skills related to governance, operational management, financial and auditing techniques, business development, marketing plans, and creditworthiness. Building the capacity of these actors will enhance backward and forward linkages throughout the value chain. Improving overall value-chain integration and organization, as well as the internal structure and capacities of the individual governing entities within the value chain, will enable them to provide the services required by their members in a sustainable manner and to better defend their common interest.

#### **D. Role of Partners**

73. The project complements other World Bank–financed operations across the sector, including: (i) PSAC, by supporting and strengthening the organization of the value chain and institutional development in the cashew subsector; (ii) PIDUCAS, by complementing its key market infrastructure in Bouaké and SME support in the agribusiness value chains; and (iii) WAAPP, with regard to food security and nutrition risks in cash crop production areas. The proposed project will further pursue the partnership developed with IFC under PSAC in promoting the cashew sector. IFC’s expertise is vital for the wider development of the cashew value chain in Côte d’Ivoire, especially for building capacity within cooperatives to gain better access to finance, educating bankers on the nature of business in the cashew industry, and supporting ANDE in implementing an electronic platform for environmental impact assessment.

74. The European Investment Bank (EIB) is currently preparing a project which is expected to support access to finance for the cashew industry. This will be achieved by potentially establishing a dedicated Facility (line of credit or risk sharing instrument). The project will leverage EIB’s financing once approved, and will also collaborate with other development partners and NGOs active in the cashew value chain in West Africa—among others, the German Cooperation Agency (GIZ), the United States Agency for International Development (USAID), the African Cashew Alliance (ACA), and Technoserve.



## V. KEY RISKS

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

75. The Systematic Operations Risk-Rating Tool (SORT) was applied to evaluate potential risks associated with the project (see Table 2 below). The overall risk rating for the project is **Substantial**. The key factors underlying this risk rating are related to the issues highlighted in the following paragraphs:

76. **Political and governance risks.** Recent residual and localized insecurity may cause important investment decisions to be postponed, which could constrain and/or delay execution of programs. Weak governance (reflected in an intermittent commitment to reforms due to administrative resistance and/or political opposition) has had serious consequences in the past. In theory, the partnership between WBG and the government should make it possible to support reforms that will improve political and social sustainability. Within the cashew subsector, capacity building and organizational strengthening for key value-chain actors (a central feature of the project) should help to resolve governance issues and promote transparency and inclusiveness. By supporting active policy dialogue among the players, the project should make it possible to reach agreement on collective action to realize business opportunities.

**Table 2: Systematic Operations Risk-Rating Tool**

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

77. **Macroeconomic risks.** While the medium-term outlook is positive, a number of external and domestic downside risks could hamper implementation of the NDP. The macro-financial risks stemming from potential contingent liabilities in the public sector and vulnerabilities in the financial sector, together with headwinds from increased global risks, could adversely affect Côte d'Ivoire's economic outlook. Given the global financial outlook, there may be a reduction in disposable incomes in major value market segments relevant for Côte d'Ivoire and hence a reduction in demand/prices for export commodities. The project will closely monitor the macroeconomic risks and take appropriate measures to mitigate them, for instance, by identifying vulnerabilities and reorienting project implementation accordingly.

78. **Institutional capacity risks.** In 2013, the government adopted measures to reform and improve the performance of the cashew subsector, including a strategy to promote domestic cashew processing. The project is designed to support those measures, although their implementation may suffer from the lack of institutional capacity at various levels of the value chain. The project will help to mitigate this risk by: (i) implementing a comprehensive capacity-building program benefiting the main value-chain actors, targeting issues such as management, governance, and subsector organization, as noted earlier; (ii) relying on a strong PCU familiar with World Bank administrative procedures and guidelines; and (iii) building on a rigorous engagement of key sector actors and technical entities (ANADER, AGEDI, and so on). The



involvement of these actors and entities will ensure efficient technical support for project implementation. The project will also support collective business actions, such as the identification of markets and buyers, joint participation in promotional events, production under a common brand, and joint initiatives regarding quality upgrading and certification.

79. **Fiduciary risks.** These risks are rated Substantial and are related to the persisting issues that affect the transparency and efficiency of the national procurement system and the number of specialized public agencies involved in implementation. To manage fiduciary risks, management of the Designated Account and fiduciary responsibilities will be entrusted to FIRCA. Furthermore, appropriate external audit arrangements will be put in place and regular training and supervision will be provided to strengthen capacities of all project actors.

80. **Environment and social risks.** The project is classified as a “Category A,” because some of the planned interventions are likely to have significant adverse environmental impacts, including development of the cashew processing platforms, rural road rehabilitation, and changes in agricultural practices (possibly increasing the use of agro-chemicals). To mitigate these risks, the project has prepared: (i) an Environmental and Social Management Framework (ESMF); (ii) a Resettlement Policy Framework (RPF); and (iii) an Integrated Pest Management Plan (IPMP). These instruments provide measures for effectively mitigating potential environmental and social impacts and procedures to monitor their effectiveness and detect any unforeseen impact. For details, see Section F and Annex 2 (Section D).

81. **Risks pertaining to market volatility.** In the foreseeable future, it is expected that demand for processed kernels will outstrip the global RCN supply and continue to drive RCN prices higher. As the gap between supply and demand widens, the cashew market may be subject to increased short-term volatility. This volatility risk will be mitigated by major project investments for enhancing value-chain productivity and competitiveness, including warehouse facilities and market intelligence. These investments will focus not only on increasing yields but also on improving quality to attract more buyers and diversify market outlets, and also on giving greater capability to processors and traders to store and therefore hedge against short-term price volatility. In addition, the cashew kernels market is less volatile, more predictable and has greater risk mitigation opportunity than the RCN market; meaning that the development of local processing is likely to reduce the overall risk profile of the sector.

## B. Climate Risk Screening

82. The project has been screened for short- and long-term climate change and disaster risks using the WBG’s Climate and Disaster Risk Screening Project Level Tool<sup>11</sup>. The outcomes of the screening were used to strengthen the climate considerations in the project design, including the physical aspects (e.g., crops and land management, rural roads, and post-harvest and processing facilities) and soft components (e.g., capacity building of farmers and institutional strengthening). Most project activities will be implemented in the northern part of Côte d’Ivoire; a region expected in the future to be significantly exposed to climate change hazards (rising temperature, erratic precipitation and extreme flooding and drought). In general, drought will adversely affect crop production. This risk was found to be moderate. While cashew is generally known to be a strong plant which can withstand high temperatures, some producing areas may become unsuitable for cashew production because of increasing temperatures. On the other hand, because cashew is resistant to drought and does not require very rich soil, it will become an alternative crop (e.g. to cacao and coffee) in areas that are predicted to become drier as a result of climate change.

<sup>11</sup> The tool is available here: <http://climatescreeningtools.worldbank.org/>



83. Similarly, the level of risk to the outcome/service delivery to be provided under this project (rural transport, storage and processing) is expected to be moderate. The project emphasis on capacity-building for key value chain stakeholders (cashew research, service delivery institutions, farmers' organizations, etc.), skills development, technology transfer, boosting RCN production, and facilitating market access and the processing and marketing of cashew products, will significantly strengthen the adaptive capacity and resilience to climate change, especially for small-scale farmers.

## VI. APPRAISAL SUMMARY

### A. Economic and Financial Analysis

84. The economic and financial analysis assesses the financial impact of the project on individual beneficiaries and its economic impact at the country level. The data used in the analysis have been processed using UNIDO's Computer Model for Feasibility Analysis and Reporting software.

85. **Expected benefits.** The project is expected to generate benefits for economic actors at three levels of the cashew value chain. At the *farm level*, producers will derive benefits from their improved organization and access to modern agricultural technologies (planting material and post-harvest technology), training and extension services, and project-financed infrastructure. At the *storage/warehouse level*, private investors will derive benefits from the construction of new warehouse facilities and greater productivity of existing storage facilities through project activities to install and upgrade equipment and buildings, develop skills, and access finance and markets. At the *processing ("industrial") level*, both the government and enterprises involved in processing RCNs downstream of production and storage will derive benefits from project interventions to develop cashew industrial and service platforms, as well as improved access to finance, markets, and project-related infrastructure.

86. **Results of the financial analysis at the enterprise level.** The financial analysis considers typical enterprise models at the three levels of the value chain described above, as well as at the cashew service hubs. The internal rate of return (IRR) is computed for each of these models. The IRRs are about 41 percent at the farm level (base scenario with farm gate price of RCNs at CFAF 700/kg), and about 21 to 27 percent at the processing levels, higher than the opportunity cost of financing for producers and investors (this cost is estimated at 12–18 percent). The IRRs therefore have the potential to incentivize producers to adopt the new technical packages at the farm/production level and entice promoters to invest at the storage and industrial levels. The cashew service hubs yield an IRR of 12.25 percent, which is reasonable for a public good investment of this type; it exceeds the discount rate of 6 percent, which represents the opportunity cost for the government to undertake the country's planned economic development activities. The net present value (NPV) for project beneficiaries, computed at the discount rate corresponding to their opportunity cost of funding, is positive indicating that they are expected to make a sizable profit, as well as to be able to renew their investments at the end of their economic life.

87. **Results of the economic analysis.** The economic net present value (ENPV) of the stream of net benefits in economic terms generated by project-funded activities over the period of 20 years for the whole country is approximately US\$319 million. The economic internal rate of return (EIRR) for the entire project is estimated at 48.06 percent. The economic results are clearly positive, as expected for a commodity that exhibits a strong long-term market outlook and for which Côte d'Ivoire has a marked comparative advantage. The results are also robust against adverse economic events and implementation risks that the project may encounter. The sensitivity analysis demonstrates that under the scenarios of 20



percent cost increase and a two-year delay in benefit generation, the corresponding EIRRs remain substantially positive. Similar figures are also observed in the scenarios of decrease in sales (see Table 3).

88. **Greenhouse gas accounting.** The planned project intervention will also result in a net greenhouse gas sink of 10,211,361 tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>eq), corresponding to 0.72 tCO<sub>2</sub>eq per hectare per year. These benefits result largely from improved management of existing cashew orchards and replacement of old unproductive cashew trees with new ones. Moreover, it is estimated that the proposed project will result in avoidance of GHG emissions otherwise associated to the need to transport (shipping) about 2 million tons of RCNs to Asia for processing, over the lifetime of the project. Specifically, due to investments under Component 3 allocated for the construction of processing platforms, cashew will be locally processed, therefore reducing overall emissions associated with overseas transport (emissions reduction per container) and energy savings. Net GHG savings on transport are estimated as 309,048 tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>eq), and those related to energy saving carbon equivalent are estimated at 600,362 tons. Following World Bank guidance, these benefits have been valued at a social value of carbon that is increasing over time in real value from US\$30 per tCO<sub>2</sub>eq in 2015 to US\$65 per tCO<sub>2</sub>eq in 2040 (see Table 3 above for corresponding EIRR and ENPV).

**Table 3: Summary financial results of typical enterprise models and economic results**

	Financial results of typical enterprise models	
	IRR (%)	NPV (US\$ 000s)
<b>Farm/enterprise models</b>		
<b>Farm/production level</b>		
<i>3 ha orchards (CFAF 700/kg farm gate)</i>	40.89	1.37
<b>Storage/warehouse level</b>		
<i>Small-scale unit (500 t), rehabilitation</i>	26.30	21.00
<i>Medium-scale unit (2,000 t), new construction</i>	41.43	373.00
<b>Processing/industrial level</b>		
<i>Small-scale processing unit (3,000 t)</i>	20.79	1,319.00
<i>Medium-scale processing unit (5,000 t)</i>	25.61	1,995.00
<i>Large-scale processing unit (10,000 t)</i>	26.87	4,039.00
<i>CNSL extraction and refining unit</i>	39.26	1,766.00
<i>Cashew service hub</i>	12.25	146.00
	Economic results	
	EIRR (%)	ENPV (US\$M)
<b>Base results</b>	48.06	318.92
<i>10% increase in costs</i>	36.97	294.73
<i>20% increase in costs</i>	29.85	270.55
<i>10% reduction in sales</i>	30.36	162.98
<i>20% reduction in sales and 10% reduction in RCN cost</i>	25.16	117.07
<i>One-year delay in project benefits</i>	39.17	285.24
<i>Two-year delay in project benefits</i>	33.04	253.92
<i>Base results with carbon benefits</i>	75.19	502.48



89. **Rationale for public sector provision/financing.** Several benefits from project interventions are public goods and produce externalities—for instance, agricultural extension and research, rural roads, and the processing platforms (which have multiple functions). The private sector has no incentive to invest in these goods, as the costs would be private while the benefits would be socially shared. Without public sector support, these investments, though economically desirable, would not be carried out. At the same time, the government has set ambitious targets for economic growth and the development of agriculture, including interventions in the cashew value chain, which cannot be met without public financing. The proposed project will assist the government in expanding strategic services and infrastructure of a public nature for the development of the cashew value chain—which the government alone, with its fiscal constraints, would be unable to do.

90. **Value added of World Bank support.** Based on its worldwide experience, the Bank is in a unique position to derive lessons and good practices, as well as to provide institutional support, for developing agricultural value chains. GoCI does not have the financial wherewithal to cover all the needs identified in the project’s investment activities. As well as mobilizing critically needed financial resources for those activities, the Bank is well positioned to catalyze the transfer of expertise for a value chain such as the cashew chain and to give close attention to best practices for sustaining outcomes ranging from soil management to the administration of industrial platform services. Bank safeguard policies will ensure that social and environmental issues are addressed appropriately.

## B. Technical

91. **Technical design.** The technical design of the project is based on solid analysis, a comprehensive value-chain diagnostic, and participatory identification of priority investment and development opportunities during 2014–17. As noted, the project builds on experience and lessons from earlier efforts in Côte d’Ivoire and other cashew-processing countries, as well as current strategies, programs, and prospects for coordination and collaboration among government entities and development agencies.

92. **Holistic approach.** A main innovation in the design of the project is a holistic approach that comprehensively and simultaneously addresses weaknesses across all segments of the value chain by removing structural and regulatory constraints on sustainable growth of the subsector, promoting productivity and quality gains at the farm level, and attracting private investments for increased domestic processing and higher value added. Other innovative project features include: (i) building the capacity of key stakeholders to provide services to members transparently and sustainably; (ii) involving the institutions governing the sector in implementing project activities such as training, extension, and research for efficient and sustainable service delivery; (iii) using innovative data collection methods such as the geo-referenced information system, including a Geographic Information System (GIS) module complemented by an Management Information System (MIS) on market data and market intelligence; and (iv) promoting the creation of industrial platforms to catalyze investments in cashew processing in Côte d’Ivoire by showing what can be achieved and how. Bulk packaging, mechanized processing, CNSL, and cashew roasting will exemplify modern cashew processing to investors. The industrial platforms will change the business paradigm of cashew processing in Côte d’Ivoire by functioning as industrial centers of excellence.

93. The project has also taken into consideration the major challenge of financing faced by the cashew sector. The project will support financial instruments, like collateral enhancement grants and a security deposit scheme to leverage commercial loans for storage/ processing investments and purchase of RCN inventories. Accessing project-sponsored financial instruments will require investors to develop viable



business plans. Support to that effect is currently difficult to acquire. Hence, technical assistance will be provided to increase PFI capacity to assist value chain participants to develop viable investment initiatives.

94. **Improved product traceability and reduced carbon footprint.** Project investments will enable Ivorian producers and processors to promote traceability, which offers a very powerful incentive for consumers to source kernels directly in Côte d'Ivoire and satisfy the European and US markets's increasing emphasis on traceability from farm to fork. Currently, kernels processed in India and Vietnam come from a variety of sources and reach the European and US markets indirectly, after a long and largely untraceable itinerary. Local processing eliminates the cost of shipping RCN first to Asia for processing and then to European and US markets. Downstream in the supply chain, food manufacturers and retailers are generally shortening their chains as well, working increasingly with a limited number of preferred suppliers who assume responsibility for product traceability, safety, and quality. Faster transit to market will also increase efficiencies by extending shelflife, improving buyer cash flow, and facilitating just-in-time inventory management. Lastly, the lower weight of processed kernels and shorter transportation lines will diminish the carbon footprint of the cashew value chain, which is a definite competitive advantage of Côte d'Ivoire processors.

### C. Financial Management

95. FIRCA is familiar with World Bank financial management (FM) requirements and will have overall fiduciary responsibility for the proposed project. The FM arrangements will be based on the arrangements which were in place under WAAPP and other World Bank funded projects managed by FIRCA. FIRCA's fiduciary performance was rated Moderately Satisfactory in the March 2017 supervision of its FM activities. FIRCA has adequate staffing and follows proper bookkeeping practices for all expenditures. Unaudited interim financial reports for closed projects managed by FIRCA were submitted on time. Most recommendations related to internal control weaknesses have been implemented.

96. In line with Decree No 2015-475 dated July 1, 2015 governing the modalities of donor-financed projects in Côte d'Ivoire, FIRCA should have been assigned a Financial Controller from the Ministry of Budget and a Public Accountant from MEF during WAAPP implementation, but this requirement was waived to facilitate project implementation. MEF is expected to grant a similar waiver to FIRCA for implementing the proposed project.

97. The FM arrangements for the proposed project are assessed to satisfy the Bank's minimum requirements under Bank Policy and directive – IPF; which describes the overall Bank FM policies and procedures (in other words, they are adequate to provide, with reasonable assurance, accurate and timely financial management information required by the Bank on the status of the project). The Project can make use of retroactive financing for eligible expenditures in an amount not to exceed thirty-nine million (\$US39 million) in accordance with the Loan Agreement. The current Finance and Administrative Director of FIRCA will oversee the project FM activities. However, to sustain the timeliness and reliability of information produced by FIRCA and sufficiently segregate FM duties, a principal accountant fully dedicated to the accounting and disbursements tasks of the proposed project with qualifications and experience satisfactory to the Bank will be appointed. The fiduciary procedures described in the FM manual issued by FIRCA will be updated to include specific arrangements related to the management of the proposed project. The accounting software will be customized to record transactions and financial reporting for the new project. An audit committee composed of all FIRCA's representative members will be created to strengthen the oversight function of FIRCA. These risk mitigation measures, except for



preparation of the PIM and updating of the FM manual, are dated covenants to be implemented within two (2) to six (6) months following project effectiveness.

#### D. Procurement

98. All goods, works, and non-consulting services to be financed by the Loan will be procured in accordance with the requirements set forth or referred to in Section VI, “*Approved Selection Methods: Goods, Works, and Non-Consulting Services*” and Section VII, “*Approved Selection Methods: Consulting Services*,” of the World Bank “*Procurement Regulation for Borrowers under Investment Project Financing*,” dated July 1, 2016 and the “*Guidelines on Preventing and Combatting Fraud and Corruption*” revised in June 2011; and the Project Procurement Strategy for Development (PPSD) and Procurement Plan approved by the World Bank on February 20, 2018. The Procurement Plan specifies for each contract: (i) a description of the activities/contracts; (ii) selection methods to be applied; (iii) estimated cost; (iv) time schedules; (v) World Bank’s review requirements; and (vi) any other relevant procurement information.

99. The 2016 procurement risk assessment of FIRCA indicated that FIRCA satisfactorily used World Bank procurement guidelines in implementing other World Bank-funded projects in agriculture (notably WAAPP). The assessment—in conjunction with the PPSD prepared by the Borrower—identified the following risks: persisting issues that affect the transparency and efficiency of the national procurement system; unfamiliarity with the new procurement regime; lack of proper procurement planning; and insufficient technical capacity to identify project needs (terms of reference and technical specifications). The government is implementing adequate mechanisms to combat these problems, such as the Code of Ethics at the level of ministers and officials, but results are not yet evident and there has been no evaluation. Measures proposed to mitigate procurement risks under the project include: (i) training in the requirements of the procurement regulations for Borrowers; (ii) assurance of proper planning, with special emphasis on contracts that show high criticality based on the PPSD risk analysis; (iii) assurance that procurement documents (especially for Requests for Bids and Proposals at the national level) are clear and of good quality; (iv) involvement of partners (ministry technical departments and specialized institutes) to provide TA for project implementation. The PPSD details other risks and their associated mitigation measures.

100. The World Bank will support procurement implementation on a regular basis with a formal supervision once every six months (alongside other project team members) and an annual post procurement review. The World Bank may also conduct an Independent Procurement Review at any time until two years after the closing date of the project. As part of PPSD, a procurement plan for the first 18 months of the project has been submitted by the Borrower and agreed with the World Bank during negotiation. The Borrower shall submit to the World Bank, for its review and approval, any updates of the Procurement Plan approved by the World Bank. The Recipient shall use the World Bank’s online procurement planning and tracking tools to prepare, clear, and update its Procurements Plan and conduct all procurement transactions.

#### E. Social (including Safeguards)

101. The project’s overall social impacts are expected to be positive, yet some activities may generate adverse social impacts. Because those activities, which are related to Components 2 and 3 (improvement of feeder roads, post-harvest infrastructure, and processing platforms), are likely to result in land acquisition or restriction of access to resources used by the population, OP 4.12 on Involuntary Resettlement is triggered. The specific sites or impacts of these physical investments are not yet determined. Only the larger project implementation areas are known (for example, the processing



platforms will be located in Bouaké, Korhogo, Bondoukou, and Séguéla). As a result, an RPF was prepared for the proposed project as due diligence. The RPF was consulted upon in-country, and published in Côte d'Ivoire on April 4, 2017 and on the World Bank's external website on April 6, 2017.

102. The RPF will guide preparation of specific Resettlement Action Plans (RAPs) before any project activities that may lead to involuntary resettlement are initiated. RAPs will include measures to compensate for negative impacts on project-affected people and will be submitted to the World Bank for approval prior to the commencement of any civil works.

103. **Labor Influx.** To ensure proper management of potential labor influx, the project has established clear guidance and rules as part of the ESMP for: (i) workers contracts ensuring that they include measures for managing the potential impacts of outside workforce on the local community; contractors who bring workers and operators from outside the area, will have to prepare specific measures, such as that workers are housed in adequate work camps during construction; and (ii) the same would apply to producers during the cashew harvest period for hired labor to complement family labor. To preempt and protect local host communities against any potential influx of road workers and others implementing the project in rural areas, preparation and implementation of an HIV/AIDS prevention plan will be part of the contractual obligations of service providers hired through the project. Contractors will also be required to institute codes of conduct for their workers and related measures to mitigate the possibility of gender-based violence (GBV) in the project sites and will be closely scrutinized during supervision missions.

104. **Citizen engagement.** Citizen engagement has been integral to designing the project and will remain a cornerstone of implementation and ultimately of the project's success. All key stakeholders in the cashew value chain (farmers, processors, traders, and so on), the public sector, civil society, and the most vulnerable groups (women and youth) were consulted during preparation and aided in defining the scope of activities. Project implementation will continue to involve, among others, local, provincial, and national administrations, farmer cooperatives, as well as private agribusinesses. Citizen engagement will be monitored through surveys of beneficiaries' satisfaction with project interventions. In addition, the Project will establish robust mechanisms to ensure that feedback will trigger response. Regular supervision missions as well as reports from the social safeguard specialists who will be recruited under the projects will monitor compliance.

105. **Expected social benefits and gender.** For small-scale cashew growers as well as other participants in the cashew value chain, project interventions are expected to result in several social benefits, including increased production capacity, income diversification and security, job creation, and induced local economic development. The project also reflects the fact that gender, age, ethnicity, and income groups are well represented across the cashew industry. The project will develop a comprehensive gender and youth strategy to enhance the role of women and youth throughout the cashew value chain from production to processing and marketing. The strategy will emphasize facilitating access to assets, training, and employment, especially for women (see Annex 2 – Section G).

## F. Environment (including Safeguards)

106. The project will finance a program to enhance cashew productivity through changes in agricultural practices (possibly increasing fertilizer and pesticide use) and a program to rehabilitate rural roads connecting the main cashew-producing areas to markets. It will also develop four cashew processing platforms, including basic industrial infrastructure and facilities for storage, byproduct processing, and waste management. Some of these activities are likely to have significant adverse environmental impacts, therefore the project is classified as a "Category A" and triggers six safeguard policies: 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); and Involuntary Resettlement (OP/BP 4.12). These policies are addressed through three instruments prepared by GoCI and approved by the World Bank: an ESMF, a RPF, and an IPMP. These instruments provide measures for effectively mitigating potential environmental and social impacts, monitoring their effectiveness, and detecting unforeseen impacts.

107. The ESMF specifies the implementation arrangements and recommendations for capacity building needed by the institutions involved. In addition, it includes guidelines on Occupational, Health and Safety (EHS/OHS), a Grievance Redress Mechanism (GRM) section, and clearly mentions that the company Environmental and Social Management Plan (Works-ESMP) must be approved by the PCU and their partners prior to the works commencement. Moreover, the bidding documents and the contracts for main contractors as well as the sub-contractors must also include sections related to EHS/OHS. The provisions of the ESMF will be fully incorporated into the PIM. The expenditures on environmental and social sustainability outlined in the ESMF, IPMP, and RPF have been incorporated into the project cost estimates. On April 4, 2017, the government approved the safeguard documents and published them in readily accessible sites such as MINADER, MIM, CCA, FIRCA, ANDE, and PSAC/PCU. These documents were also disclosed on the World Bank external website on April 6, 2017.

108. In addition to these instruments, two Terms of Reference (ToRs) for Strategic Environmental and Social Assessment (SESA) were developed by the Borrower, reviewed by the Bank's safeguard specialists, and disclosed in Côte d'Ivoire on October 1, 2016 for the first one (Bouaké processing platform) and on July 5, 2017 for the second one (Korhogo processing platform).

## G. World Bank Grievance Redress

109. 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 Bank's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of the Bank's non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate GRS, visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, visit [www.inspectionpanel.org](http://www.inspectionpanel.org).



## VII. RESULTS FRAMEWORK AND MONITORING

### Results Framework

COUNTRY : Cote d'Ivoire

Cashew Value Chain Competitiveness Project

#### Project Development Objectives

The objective of the Project is to increase cashew productivity, quality and value-added, benefiting smallholder farmers and the cashew processing industry in the Republic of Côte d'Ivoire.

#### Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<b>Name:</b> Increased cashew productivity in the project area		Metric ton	0.52	0.65	Annual	Annual progress reports, MINADER and CCA survey reports	PCU and partner implementing agencies (CCA, FIRCA, ANADER)
Description: This indicator measures the increased cashew productivity at farm level in metric ton per hectare.							
<b>Name:</b> Improved quality of RCN exported and received		Text	46-48lbs	48-52lbs	Annual	CCA annual stakeholder survey	CCA



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
by processors in Cote d'Ivoire							
<p>Description: This indicator measures the project's impact in terms of improved RCN quality as measured by the "Kernels Outturn Ratio - KOR". KOR provides an indication of the volume of kernels recovered in processing a fixed volume of RCN and is expressed in "lbs per bag". It will be measured by an annual survey to be carry-out by CCA.</p>							
<b>Name:</b> Increased volume of RCNs processed domestically		Metric tons/year	44626.00	155000.00	Annual	Annual progress reports, CCA statistics and industrial production statistics (MIM)	PCU and CCA in cooperation with the planning and statistics department of MIM
<p>Description: This indicator measures the annual increase in RCN domestic processing in metric tons.</p>							
<b>Name:</b> Farmers reached with agricultural assets or services	✓	Number	0.00	225000.00	Annual	Annual progress and M&E reports	PCU and partner implementing agencies (CCA, ANDER, FIRCA)
Farmers reached with agricultural assets or services - Female	✓	Number	0.00	45000.00		Annual progress and M&E reports	PCU and partner implementing agencies (CCA, ANADER, FIRCA)
<p>Description:</p>							



**Intermediate Results Indicators**

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<b>Name:</b> Increase in membership of cashew producers organizations		Percentage	5.00	30.00	Annual	Annual progress reports and DOPA reports	PCU and DOPA
<p>Description: Producers who are members of a cooperative or another collective structure with legal status in line with legislation and who have paid their membership.</p>							
<b>Name:</b> Incentives for promoting domestic processing implemented efficiently		Percentage	50.00	80.00	Yr 1, Yr 3 and Yr 5	External satisfaction survey	PCU, CCA and consulting firm
<p>Description: This indicator measures the cashew processing industry satisfaction in relation to Government regulations and incentives for promoting domestic processing. This will be measured through a survey of cashew processors, assemblers and traders.</p>							
<b>Name:</b> Technicians and managers trained in cashew processing		Number	0.00	750.00	Annual	Annual progress reports and CITA reports	PCU and CITA
<p>Description: This indicator measures the number of technicians, floor supervisors and managers trained within CITA in various subjects (cashew processing technology, process management, quality management systems, industrial processes, etc.).</p>							
<b>Name:</b> Farmers trained in GAPs		Number	73000.00	298000.00	Bi-annual	Annual progress reports and reports of CDCs	PCU and partner implementing



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
							agencies (ANADER, FIRCA, CDCs)
<p><b>Description:</b> This indicator measures the number of cashew producers trained in GAPs and harvest and post-harvest methods as part of the support tools to improve yields and quality of the harvest.</p>							
<b>Name:</b> Area of village plantations planted with improved grafting material		Hectare(Ha)	800.00	32500.00	Annual	Annual technical activity reports	PCU and partner implementing agencies (ANADER, FIRCA, CDCs)
<p><b>Description:</b> This indicator measures the area planted with improved grafting material (equivalent 100 plants per hectare) - Cumulative number.</p>							
<b>Name:</b> Improved rural roads and access to markets		Kilometers	0.00	2100.00	Annual	Annual progress and M&E reports	PCU and partner implementing agencies (CCA and AGEROUTE)
<p><b>Description:</b> This indicator measures the number of kilometers of rural roads rehabilitated by the project. It is cumulative.</p>							
<b>Name:</b> Storage capacity of warehouses built and/or rehabilitated		Metric ton	0.00	190000.00	Bi-annual	Technical activity and M&E reports	PCU and CCA



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<p><b>Description:</b> This indicator measures the cashew storage capacity of warehouses being established through the project either through rehabilitation of existing or newly built storage facilities. Cumulative number.</p>							
<b>Name:</b> Cashew enterprises obtained financing from banks facilitated by the project		Number	0.00	15.00	Annual	Annual progress and M&E reports	PCU and CCA
<p><b>Description:</b> This indicator measures the number of cashew SMEs benefiting from financing in the context of the project. The targets provided are cumulative numbers.</p>							
<b>Name:</b> Installed RCN processing capacity in the dedicated industrial platforms		Metric ton	0.00	80000.00	Annual	Annual progress and MoIM reports	PCU, CCA, and AGEDI
<p><b>Description:</b> This indicator measures the installed RCN processing capacity within the newly developed industrial platforms in Bouaké, Korogho, Bondoukou and Séguéla.</p>							
<b>Name:</b> Jobs created within the cashew processing industrial platforms		Number	0.00	12000.00	Annual	Annual progress and M&E reports	PCU and CCA
Jobs created within the cashew processing industrial platforms - female		Number	0.00	6000.00			



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
<p>Description: This indicator measures the number of jobs created within the cashew agro-processing platforms newly developed in northern Côte d'Ivoire in the context of the project. Cumulative number disaggregated by gender.</p>							
<b>Name:</b> Beneficiary satisfaction rate with quality of services provided by the project		Percentage	0.00	80.00	Biennial	External satisfaction survey, progress reports, and independent reports	PCU, CCA and consulting firm
<p>Description: This indicator measures the percentage of beneficiaries who expressed satisfaction with the services provided in the project areas based on formal surveys. Beneficiaries include cashew producers, processors, traders, exporters, and public administration.</p>							

**Target Values****Project Development Objective Indicators**

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Increased cashew productivity in the project area	0.52	0.52	0.55	0.60	0.62	0.65	0.65
Improved quality of RCN exported and received by processors in Cote d'Ivoire	46-48lbs	46-48lbs		48-50lbs		48-52lbs	48-52lbs
Increased volume of RCNs processed domestically	44626.00	65000.00	100000.00	120000.00	140000.00	155000.00	155000.00
Farmers reached with agricultural assets or services	0.00	25000.00	75000.00	125000.00	175000.00	225000.00	225000.00
Farmers reached with agricultural assets or services - Female	0.00	5000.00	15000.00	25000.00	35000.00	45000.00	45000.00

**Intermediate Results Indicators**

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Increase in membership of cashew producers organizations	5.00	5.00	15.00	25.00	30.00	30.00	30.00
Incentives for promoting domestic processing implemented efficiently	50.00	50.00		70.00		80.00	80.00



Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	End Target
Technicians and managers trained in cashew processing	0.00	100.00	250.00	450.00	650.00	750.00	750.00
Farmers trained in GAPs	73000.00	98000.00	148000.00	198000.00	248000.00	298000.00	298000.00
Area of village plantations planted with improved grafting material	800.00	2500.00	10000.00	20000.00	30000.00	32500.00	32500.00
Improved rural roads and access to markets	0.00	200.00	600.00	1100.00	1600.00	2100.00	2100.00
Storage capacity of warehouses built and/or rehabilitated	0.00	10000.00	50000.00	100000.00	150000.00	190000.00	190000.00
Cashew enterprises obtained financing from banks facilitated by the project	0.00	3.00	6.00	12.00	15.00	15.00	15.00
Installed RCN processing capacity in the dedicated industrial platforms	0.00	0.00	40000.00	60000.00	80000.00	80000.00	80000.00
Jobs created within the cashew processing industrial platforms	0.00	0.00	1500.00	3000.00	6000.00	6000.00	12000.00
Jobs created within the cashew processing industrial platforms - female	0.00	0.00	1500.00	3000.00	6000.00	6000.00	6000.00
Beneficiary satisfaction rate with quality of services provided by the project	0.00		60.00			80.00	80.00



## ANNEX 1: DETAILED PROJECT DESCRIPTION

### COUNTRY: CÔTE D'IVOIRE Cashew Value-Chain Competitiveness Project

#### A. The Cashew Subsector in Côte d'Ivoire

1. **Côte d'Ivoire is an increasingly important origin for producing and processing RCNs.** With production at 711,000 tons in 2017 (or 23 percent of global production), Côte d'Ivoire is the world's second-largest RCN producer. The value of cashew exports is estimated at over US\$800 million, which makes cashew the third most important export commodity after cacao and refined petroleum products, ahead of rubber, cotton, and coffee.<sup>12</sup> Cashew is critical for regional development and poverty reduction in Côte d'Ivoire, where it is grown by 330,000 households (impacting up to 1.9 million people)<sup>13</sup> in the poorer, northern half of the country and has become their most important source of rural cash income. Clearly an exciting source of growth, cashew has the added advantage of having the potential to generate better and inclusive rural employment through farming and rural industrialization. Furthermore, it is an ideal crop for coping with the consequences of climate change in northern Côte d'Ivoire. Provided that a comprehensive strategy is put in place to overcome constraints to competitiveness in the cashew value chain, overall growth in the value of cashew exports by 15 percent annually over the next decade seems feasible (excluding gains from processing).

2. **Development of the cashew value chain faces several impediments, however.** They include: (i) governance of the value chain; (ii) deterioration in the quality of RCNs after harvest due to inadequate harvesting and post-harvesting methods; (iii) the high investment cost, including equipment and spare parts; (iv) the lack of technical and managerial skills and the low productivity of the labor force; (v) the difficulty in accessing credit, for both investments and working capital; (vi) international buyers' perceptions that it is risky to source kernels from African processors; (vii) investors' perceptions that sector policies and the business environment are unfriendly; and (viii) the poorly developed rural infrastructure (see Figure 1 below).

3. **The expansion of Ivorian cashew production has been extraordinary, but productivity and quality remain low.** Production has been growing by more than 20 percent per annum over the last two decades (from 6,000 tons in 1990 to 63,000 tons in 2000 and to 675,000 tons in 2016). This rapid increase has been driven largely by an expansion in planted area rather than by productivity gains. Plantations are relatively young (66 percent are less than 25 years old), consisting of unimproved tree varieties grown from home-saved seed. Farmers tend to apply virtually no inputs. Treatment for disease and insects is rare, harvesting practices leave much to be desired, and drying and storage are poorly done. Low levels of pruning and tree maintenance reduce yield and negatively impact nut shelling outturn<sup>14</sup> and quality. As a result, productivity is low in Côte d'Ivoire (averaging 500 kg/ha) compared with Asia (for example, 850 kg/ha in India and 1,000 kg/ha in Vietnam). Low productivity at the farm gate increases aggregation costs

<sup>12</sup> Gross farmer receipts in 2015 were estimated at US\$400 million for cashew, now way ahead of cotton (US\$180 million), the traditional cash crop of the north. A comparison of net farmer receipts would be even more favorable, since cotton involves much higher input costs (about one-third of gross receipts).

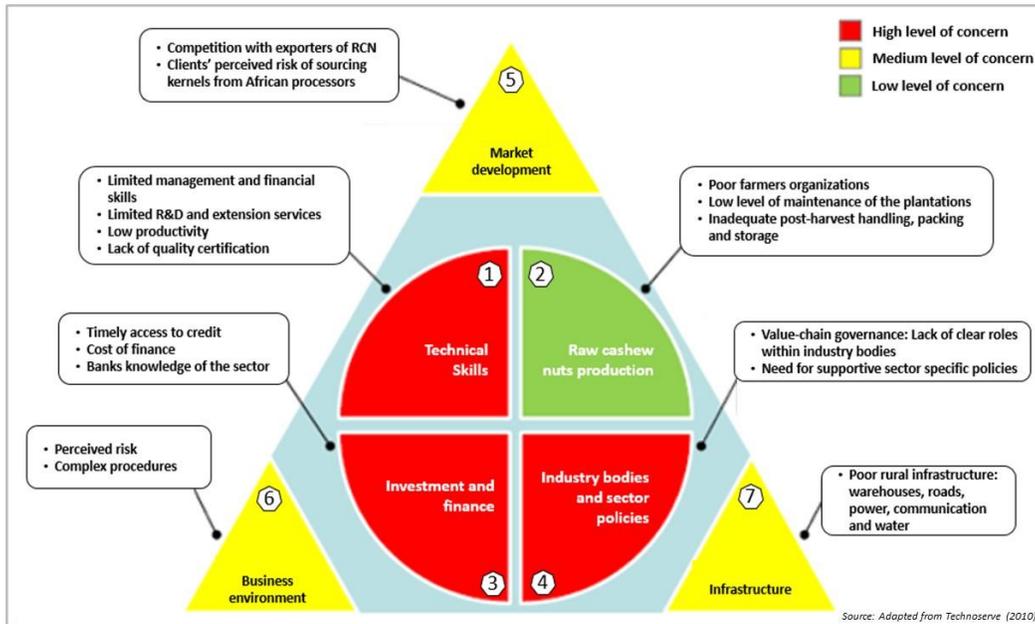
<sup>13</sup> CCA estimates (2015).

<sup>14</sup> The outturn of cashew kernels is equal to the amount of usable kernels after processing the nuts. Outturn depends on the quality of the raw material and the efficiency of the process. Experience in processing Ivorian cashew nuts in India indicates that the expected outturn is 24 percent, based on the current quality of Ivorian RCNs.



over poor road networks. Because of their lesser quality, Ivorian cashew nuts receive an average price discount of about 15 percent compared to the average price for African cashew exports to India. While the low-intensity approach to production in Côte d'Ivoire is well suited to low-income, risk-averse decision-making, clearly there is room for significant improved productivity as knowledge is shared and internal market linkages strengthened.

**Figure 1: Main constraints to the competitiveness of the cashew value chain, Côte d'Ivoire**



4. **Côte d'Ivoire processes less than 7 percent of its production.** In 2016, approximately 92 percent of Ivorian cashew production was exported to India and Vietnam, mainly by foreign-owned companies based in India, Vietnam, Singapore, and Europe. Several licensed domestic cooperatives/enterprises handle internal trade based on pre-finance links with foreign companies.<sup>15</sup> The reach of foreign trading companies directly to the farm gate is increasing, with consequent risks for farmers due to speculation. While competition between international RCN traders may appear to be intense at times, the chain is notoriously opaque. There are suspicions of anti-competitive practices and contract fidelity is low. In the longer term, dependence on two countries could be significant risk for the sector.

5. The existing installed cashew processing capacity in Côte d'Ivoire is estimated at 109,500 tons (with actual utilization of less than 50 percent). Moreover, nearly all processed cashew in 2016 came from two factories with a combined capacity of 42,000 tons. These numbers highlight not only the huge imbalance between RCN exports and processed quantities but the socio-economic losses to the Ivorian economy. UNIDO estimated in 2015 that processing the cashew crop could create 440,000 jobs (of which at least 60 percent would go to women), delivering more than US\$400 million in wages per year to the local economy, primarily in the impoverished North. Other gains could be obtained for the country in the form of the foreign exchange value of exports and the use of byproducts.

<sup>15</sup> The dominance of foreign-based companies is explained by the historical significance of India as a processor of RCNs from origins worldwide. Foreign trading companies often deal with multiple commodities to spread trading/market risk and overheads over a number of value chains. Larger companies have international credit lines that underwrite borrowing from local banks for working capital needs throughout the buying season. In recent years Vietnam, has overtaken India as the primary destination for RCNs.



**6. While RCN exports are likely to continue for many years, it is time to move from exporting raw cashew to domestic processing.** The reasons for expanding the processing sector in Côte d'Ivoire are solid

and clear, including the vibrant international market (Box 4) and the current strategic organizational context of the cashew supply chain. One of the first reasons for expanding processing is that international buyers need an alternative to current sources of supply—they rely very heavily on Vietnam for cashew kernels (75 percent are sourced there), which increases the risk for buyers.<sup>16</sup> At the same time, kernel exports from India are falling as domestic consumption grows, and production is declining in Brazil. A second reason for expanding cashew processing in Côte d'Ivoire is that the country's growing importance in supplying the cashew market and its proximity to the European and United States markets are drawing the attention of processors and end-users to Ivorian producers. Third, the possibility of creating shorter, more traceable value chains is a very powerful incentive for consumers to source kernels directly from Côte d'Ivoire. Kernels processed in India and Vietnam come from more than 25 countries before reaching the European and United States markets through a long, indirect, and largely untraceable chain. Local processing will significantly cut transport costs because RCN will no longer be shipped to Asia (1.6 million tons estimated in 2017) to

**Box 4: The world market for cashew**

**Global trade in both raw and processed cashew nuts has evolved greatly over the last 15 years.** Trade in processed nuts (kernels) has grown from around 234,000 tons in 2000 to over 700,000 tons in 2016, which represents an annual growth rate of 9.3 percent over the period. The main consumption markets are India, the USA, and Europe, which account for 73 percent of consumption. Demand is driven by a combination of income-economic growth and dietary trends related to health and lifestyle. Global kernel demand is predicted to increase over the coming decade, albeit at lower rates than in the recent past. The United States and European markets, where cashew is essentially a snack food, are price sensitive in terms of growth rates, but strong demand swings toward perceived healthy foods have reduced the impact of price volatility in the past five years. In India, cashew is largely consumed as a food ingredient (both whole and broken nuts are widely used) and is increasingly given as a gift for seasonal festivals. Demand in India is predicted to remain strong, as the growing middle class consumes higher-value food products. There are signs of increasing demand from China, which currently accounts for about 6 percent of global consumption. RCNs are produced in four main geographical regions: Southeast Asia (16 percent), India (22 percent), West Africa (44 percent), East Africa (11 percent), and Brazil (6 percent). World production is forecast at 3.15 million tons in 2017, with 55 percent originating from Africa. Global RCN production is forecast to grow to around 3.8 million tons by 2020. RCN production has been growing at an annual rate of around 4.22 percent per annum, noticeably slower than the growth rate for processed kernels.

**Supply and demand predictions suggest continued growth in both parameters, with two key factors being likely to have a significant impact on Ivorian (and West African) growers and processors.** First, demand for processed kernels is expected to surpass supply of RCNs globally and continue to drive RCN prices higher, with increased volatility as the gap widens. Second, production of RCNs is either flat or declining outside of Africa, with the result that Africa, particularly Côte d'Ivoire, will increasingly become a dominant player in RCN production. West African RCN production is rising in response to higher prices internationally. Production inevitably lags demand due to the four-year establishment period of the cashew trees.

**The international market for cashew kernels (quotes in US\$ per pound) is a physical market with prices derived through open market negotiations between buyers and sellers.** Forward trading, often for up to 12 months into the future, is a feature of the market. There is no quoted futures market contract, and no derivative or proxy hedges are available. International prices have been stable over extended periods, with significant upward spikes in 2008, 2011, and 2016. The first spike ended due to the turmoil in financial markets worldwide and the second resulted from concerns about RCN availability due to poor crops in Africa. In 2016 prices peaked at over US\$4.60 per pound (US\$10,100 per ton) and during 2017 spiked to US\$5.00 per pound on a poor crop in Vietnam. Prices are now in the range US\$4.60-4.70 per pound and shows signs of stability as the 2018 crop arrives.

The international kernel price in processing countries is translated back to a farm-gate RCN price at origin through a series of complex interactions which lack transparency. The current supply/demand situation appears to be sustaining RCN prices at levels where highly efficient processors in India and Vietnam can make adequate profit margins. Processors at origin in West Africa operating at a lower scale, with less processing efficiency and poorly developed relationships with consuming markets, claim to be in negative gross margin territory. This is the result of local constraints that inhibit competitiveness.

<sup>16</sup> In 2017 Vietnam is forecast to import 80 percent of its RCN needs for processing and re-export. This is an example of a high-risk chain in which the USA, for example, buys 75 percent of its cashew needs from Vietnam, which in turn buys 70 percent of its needs in West Africa. The United States buyer depends on the West African farmer but has no influence or presence in that market.



be processed and the kernels exported to markets in the EU and USA. The more direct route and sourcing from a single producer would better meet the European market's key requirement of food safety/traceability from farm to fork (a trend that is likely to build in the USA as well, as the Food Safety Modernization Act takes effect). Downstream in the supply chain, food manufacturers and retailers are also generally shortening their chains (in terms of supply networks and relations) and thus increasingly operating with a limited number of approved suppliers to which they transfer the responsibility for traceability, food safety, and quality assurance.<sup>17</sup> In addition, shorter transportation lines diminish the carbon footprint of the value chain, which is an interesting environmentally friendly proposition and a definite competitive advantage of Ivorian processors. A fourth reason for expanding Ivorian cashew processing is the untapped potential in certified organic production, for which demand hugely outstrips supply. Ivorian cashew producers use so few chemical inputs that the transition to organic production could be rapid, making Côte d'Ivoire unique in the world by offering a premium-priced product that costs less to produce. Finally, climate change is expected to reduce the area suitable for cacao. Cashew is an ideal alternative crop as it resists drought and wind.

**7. Despite the abundance of raw material, investment in local cashew processing has been very low and capacity is underutilized, but the debate about the competitiveness of Ivorian cashew processing has evolved over the past five years, and experts believe that local processing can be competitive if a number of key criteria are met.** These criteria include the use of recently developed and efficient semi-mechanized processing equipment, management by experienced and specialized staff, and a well-trained, disciplined workforce. Studies also highlight potential competitive risks to Ivorian processing in the form of low productivity (including labor), access to and cost of capital, food safety and traceability standards, and constant improvement in processing technology in Vietnam to drive its competitive advantage. On the other hand, concerns related to traceability, food safety, and labor practices are encouraging kernel buyers to seek new sources of supply.<sup>18</sup> Promoting domestic processing (by both national and foreign investors) will therefore require implementing a comprehensive value-chain development approach with some incentives, carefully managed to avoid penalizing farmers or protecting inefficient enterprises. If an export tax is used, its proceeds should be channeled into a program that not only promotes domestic processing but helps to raise cashew yields, which are below those of competing Asian countries. Public research and extension should be strengthened as well as the regulatory framework, to improve coordination without hampering the dynamism of the private sector.

**8. Recognizing the potential for an expansion of domestic cashew processing to create jobs and increase value addition, GoCI has included the development of the cashew subsector, especially cashew processing, as a national priority in the NDP 2016–20 and NAIP.** In 2013, it adopted reforms in the subsector, based on several strategic pillars to promote domestic cashew processing (prepared jointly by MIM, MINADER, MEF, and MoE).

**9. The 2013 reform focuses on improving on-farm productivity, improving RCN marketing, and strengthening management of the value chain.** It includes the following main pillars: (i) the establishment

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<sup>17</sup> Although full traceability is not yet required by law, EU buyers expect suppliers to know and document their own buyers and suppliers (one step forward and one step back in the chain is the current legal requirement), to know and document which products are used during the production process, and to label final products for traceability in case of a food safety problem.

<sup>18</sup> The increasing quality and traceability demands are not being met by Vietnamese processors. Multiple quality problems and food safety issues (especially foreign matter) pervade the Vietnamese industry, and much confidence has been lost among buyers. Labor conditions in Vietnamese factories constitute an additional risk for buyers.



of a public agency (CCA)<sup>19</sup> in charge of coordinating and promoting development of the cashew (and cotton) subsectors, by providing the necessary regulations for all activities in the subsectors, organizing the provision of critical services, supporting the strengthening of producer associations, and creating a strong inter-professional body to manage the value chain; (ii) programs for strengthening research, the production and distribution of improved planting material, and the improvement of advisory services for providing technical support to farmers on GAPs and harvest/post-harvest methods to improve RCN quality; (iii) the establishment of efficient quality control and traceability mechanisms; (iv) the establishment of a new producer price mechanism guaranteeing a farm-gate price of at least 60 percent of the international CIF<sup>20</sup> price of RCNs; (v) the rationalization of domestic marketing through the establishment of a network of licensed warehouses; and (vi) the rehabilitation of rural roads in the main producing areas. Most of these activities are already under implementation, financed by the levies on the value chain (and with the support of the IDA-financed PSAC and IFC). However, these activities remain only partially funded and their implementation should be accelerated to respond to the government's objective of increasing the percentage of domestically processed RCNs by 2020. Special attention must also be paid to building the capacity of CCA and improving the governance of the subsector, giving more voice to producer organizations. There are many cooperatives and other village-level groups, but they focus mainly on collecting the harvest. They offer few other services, have little knowledge of the market, and are generally poorly organized. Several federations of producer organizations exist as well but do not do much better resulting in poor representation of producers' interests. A considerable effort is needed to build a legitimate and efficient structure to support improved practices and to speak on behalf of farmers, starting with a sector census.

10. **MIM is implementing a parallel set of reforms and policies aimed at developing domestic processing.** They include clarifying the regulatory framework, developing public infrastructure necessary for the mobilization of private initiatives, assisting with the procurement of processing technology, and facilitating access to credit from local financial institutions for investments and working capital (guarantee fund and inventory credit). Specific measures include: (i) a reduction of 50 percent of the customs duties on imported capital equipment and a first inventory of spare parts; (ii) exemption, for a period from 5 to 15 years (the latter for investments in the Zone C of the country which covers the main cashew producing zones), of the benefit tax (*Bénéfice Industriel et Commercial* -- BIC), land taxes and various other taxes and levies; (iii) reduced costs of environmental and social impact assessment studies; (iv) creation of industrial parks in Bouaké and other towns located in producing areas, with free access for SMEs to the land, necessary for their investments and a reduction in the cost of utilities<sup>21</sup>; (v) creation of a Cashew Innovation and Technology Center in Yamoussoukro, in partnership with Félix Houphouët Boigny (FHB) Technical Institute and the Ho Chi Minh University, for the transfer of technologies, training of the labor force, and the provision of technical assistance to private investors; (vi) establishment of a guarantee fund, with a start-up capital of CFAF4.0 billion, to offer a partial guarantee for loans from financial

<sup>19</sup> CCA was created in 2013 to take over the functions of two previous bodies: *Autorité de Régulation du Coton et de l'Anacarde*, created in 2002 as the sector regulatory body, and *Intercajou*, the value-chain inter-professional body responsible for the management and coordination of private actors in the value chain. The CCA has the mission of developing the productivity of the entire value chain from production to the processing sector. It plays a regulatory role in the sector, in addition to its development and minimum price mandates.

<sup>20</sup> The seller must pay the costs, and freight includes insurance to bring the goods to the port of destination. However, risk is transferred to the buyer once the goods are loaded on the ship.

<sup>21</sup> The definition of SMEs in the Investment Code may also need to be relaxed with respect to cashew processing. Indeed, it is defined as an enterprise that employs less than 200 employees and has sales below CFAF 1.5 billion. These limits will be exceeded by processing units of a processing capacity above 3000 tons/year.



institutions to processors for investments and/or working capital. Furthermore, CCA and MIM, working with commercial banks and IFC, have established the WRS, which allows SMEs better access to working capital by pledging RCNs as collateral.<sup>22</sup>

11. **Promoting more processing of RCNs in Côte d'Ivoire—the way forward.** The government has reviewed additional short terms measures that may be taken to spur the development of the Ivorian processing industry, based on lessons from other cashew-processing countries. One important fact is that all other countries with a significant processing capacity have provided some degree of protection to promote value addition domestically. For example, Brazil banned RCN exports, and India and Vietnam restricted RCN exports. The most recent success story is Vietnam, which went from zero processing to becoming the largest exporter in 20 years (1990–2010), by providing fiscal incentives (including no export duty on cashew kernels), linking professional bodies and government agencies to processors developing technology, and creating market infrastructure that improved the linkage to buyers.

12. Some of the main issues related to competitiveness (such as labor cost and productivity, technological/processing efficiency, and inventory management) will take time to overcome. To address these issues, the GoCI has recently adopted a series of measures for the 2018 harvest campaign, including: (i) the creation by CCA of a dedicated cashew security deposit scheme to the benefit of commercial banks for the funding of stocks of RCNs for processing operations; and (ii) reserve a part of the production of RCN for local processing (15 percent of RCN exports).<sup>23</sup> In 2016, CCA introduced a processing subsidy on exported processed kernels of CFA 400 per kilogram (US\$723 per ton), to generate sufficient margins to bridge the competitiveness gap and provide a sufficient return on invested capital. This processing subsidy is to be funded from a tax of CFA 30 per kilogram on RCN exports (about 4 percent of 2017 CFR prices) which will be passed down the value chain to the farm gate. As a result, RCN growers are in effect funding the establishment of the processing sector.

13. Côte d'Ivoire has been taxing RCN exports for a number of years. In recent years, any potential negative impact of this practice on prices at the farm gate has been compensated by favorable price developments on the international market.<sup>24</sup> In fact, producers have seen a trebling of farm-gate prices in the last decade. That said, equity issues are associated with this transfer of value from many rural families to factory owners and their workforce, which policy will need to balance. It will be necessary to use part of these proceeds for the benefit of the producers (who are generating them) to mitigate the possible negative impact of the levy on farm-gate prices and rural incomes. Factories located in the production areas may well employ family members of producing households. It has been shown that processors, once established, tend to support farmers by rewarding quality and loyalty and by helping with farm improvements and inputs—unlike RCN traders, who come once a year to buy and for whom price is the primary consideration. Higher disposable income from workers employed by processors will also generate positive externalities and have a multiplier effect in the immediate rural economy.

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<sup>22</sup> The WRS legal and regulatory framework was supported by IFC and adopted by the Council of Ministers (decrees specifying the terms of application of Law No. 2015-538 of 20 July 2015).

<sup>23</sup> Council of Ministers dated December 14, 2017.

<sup>24</sup> The negative impact has to be seen in the context of the market: a producer who received US\$275 per ton in 2007 is today receiving US\$760 per ton, and this increase has been sustained, meaning that the export tax is not even noticeable at the farm gate. Furthermore, the volatility of RCN prices makes it very difficult to estimate the impact of any tax, and this is likely to persist into the future.



14. These considerations aside, additional investments must still be considered in the value chain to create an environment that is propitious for improved productivity. Such investments would include: (i) boosting agricultural productivity by distributing improved planting material and promoting GAPs; and (ii) reducing marketing/transport costs by rehabilitating/constructing rural roads and/or financing other rural infrastructure (storage, access to water, and so on).<sup>25</sup> Such investments would increase farm productivity (yield and quality), lower transaction costs in aggregation, and result in increased farm-gate prices—assuming the presence of an institutional structure capable of managing significant volumes of funds, in a transparent and accountable manner, and avoiding the neglect experienced in the coffee and cacao subsectors. The industry should also be monitored closely to ensure that firms are becoming competitive and that the tax/subsidy is not serving to protect inefficiency. Ideally, this form of nascent-industry protection should decline over time to keep the pressure on its beneficiaries to improve their productivity. This principle should be retained, especially as the investment climate improves and the profitability of the value chain is confirmed.

15. **Ultimately, the development of a processing industry through limited protection and support may be justified as a risk-mitigation measure, versus the alternative of continued dependence on two importing countries.** Failure to build local processing capacity could jeopardize the entire subsector, a subsector in which Côte d'Ivoire has proven its comparative advantage in producing the raw material, and where it should become competitive in processing under the right conditions and with appropriate incentives in place.

## B. Project Development Objectives

16. **The project development objective (PDO)** is to increase cashew productivity, quality and added value, benefiting smallholder farmers and the cashew processing industry in the Republic of Côte d'Ivoire.

## C. Project Beneficiaries and Geographical Focus

17. **The beneficiaries of the project are smallholders growing cashew nuts in the poorer, northern half of the country.** The project will target an estimated 225,000 producers, with small farms of 2–3 hectares, who regard cashew nuts as an integral part of their livelihood base and an important source of cash income. Recent studies by ComCashew suggest that cashew may bring in 30 percent of the income of these households. Benefits will consist of improved organization of producers and access to modern agricultural technologies (planting material, agro-inputs, and post-harvest technology), training and extension services, access to finance, and project-financed infrastructure. These farmers are expected to raise both RCN yields and quality, leading to a substantial increase of income per hectare and reduced poverty in project areas.

18. **Other important beneficiaries are cashew processors and traders.** The target group includes enterprises with small-scale processing units, larger industrial processing facilities with a capacity of 3,000–10,000 tons per year, and SMEs involved in storing RCNs. They will benefit from interventions including the technology upgrading program, skill development, access to finance and markets, and project-related infrastructure; warehouse and processing SMEs will receive a 50 percent grant (either as a matching grant

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<sup>25</sup> This practice is already being implemented in the cacao, rubber, and oil palm subsectors.



or collateral enhancement) for eligible investments to create, rehabilitate, and/ or expand their RCN storage/ processing capacity. These investments are expected to generate direct 12,000 jobs (of which 50 percent are expected to be for women).

19. **Rural youth.** As in most of Côte d'Ivoire, in the North, the population is young (females and males aged 15–35) and growing, and a large number are unemployed<sup>26</sup>. The challenge is to create attractive job opportunities for them locally and stem the rural-urban exodus. The project specifically seeks to create income-generating activities for this vulnerable segment of the population to foster their inclusion in the cashew value chain. More specifically, young people will benefit from project training program in post-harvest/processing, logistics, marketing, and management techniques to provide land preparation, tree planting and renewal services for producers, as well as RCN collection, RCN drying, equipment maintenance, and transportation services for processors, among other services. As part of this effort, the project will support youth on-farm enterprises offering services directly to farmers and/or the government extension system or commercial nurseries. It is envisioned that those enterprises will operate commercially after an initial three-year startup period.

20. **Key public institutions will also benefit from project interventions.** CCA will gain capacity in managing and regulating the cashew value chain; MINADER will benefit from support for the development of specialized cashew extension and advisory services and R&D; and MIM and MoE will receive support for technology and business development services.

21. **Geographical focus.** The physical area targeted under the proposed project consists of the poorer, northern half of the country, from the border with Guinea to the border with Ghana (see the map in Annex 7). This area includes the Bafing (Touba), Denguélé (Odienné), Lacs (Yamoussoukro, Toumodi, Tiebissou), Marahoué (Bouaflé, Sinfra, Zuenoula), Moyen Comoé (Agnibilékro), N'Zi Comoé (Bongouanou, Daoukro, Dimbokro, M'Bahiakro, Bocanda), Savanes (Korhogo, Ferké, Tengrela, Boundiali), Bandama Valley (Bouaké, Dabakala, Béoumi, Katiola, Sakassou), Worodougou (Séguéla, Mankono), and Zanzan areas (Bondoukou, Bouna, Tanda).

#### D. PDO-Level Results Indicators

22. **The PDO-level indicators are the following:** (i) increased cashew productivity in the project area (kg of RCNs per hectare); (ii) improved quality of RCNs exported and received by processors (Kernels outturn ratio); (iii) increased volume of RCNs processed domestically (percentage); and (iv) farmers reached with agricultural assets or services (number) of which female beneficiaries (percentage).

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<sup>26</sup> Côte d'Ivoire's national population below the age of 35 represents 76.6 percent of total, and aged between 15 and 35 34.3 percent. (Source: [www.populationpyramid.net/côte-divoire/2016](http://www.populationpyramid.net/côte-divoire/2016)).



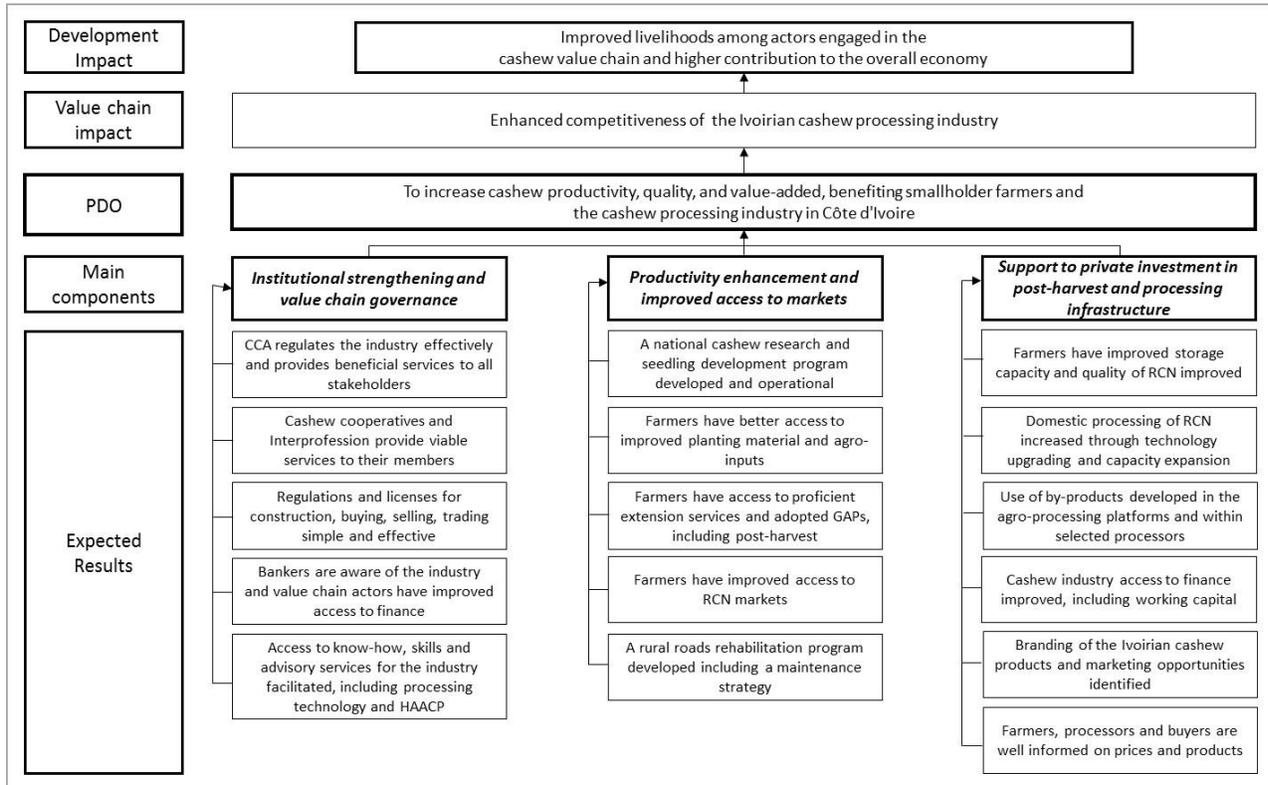
## E. Project Approach

23. **Key challenges to be addressed and project approach.** Achieving the government’s objective of enhancing the performance and competitiveness of the cashew value chain will require comprehensive interventions at all segments of the value chain from production to export, especially the post-harvest and processing segments. For this reason, the project was designed in light of four key challenges related to the performance of the value chain. One key challenge is to supply quality RCNs to processing facilities at a competitive cost, which is contingent on overcoming farm-level production challenges by strengthening agricultural extension and developing input supply networks, basic rural infrastructure, and post-harvest/marketing facilities. A second challenge is to produce quality kernels for export, which is contingent on modernizing processing industries to enhance their capacity to compete based on cost, quality, and a unique positioning responding to growing market demands (traceability, low carbon footprint, labor practices). Modernization will involve upgrading production technology, strengthening managerial and technical capacities, developing local quality standards, adhering to international standards, and developing capacity for processing byproducts. A third challenge is to improve basic infrastructure for agro-industrial activity—such as access to energy, road networks, and technology centers—which is particularly essential in the disadvantaged North. A fourth challenge is to tailor supportive measures for SMEs, including tax and other policy adjustments, to enhance their interest in domestic processing and generate more jobs for the young people who are entering the labor force in ever greater numbers.

24. **To address these challenges, the project will support additional investments at critical points along the value chain to:** (i) increase farm-level productivity of RCNs, improve quality, and reduce collection and aggregation costs; (ii) accelerate private investment in new storage and processing capacity (including byproducts) by facilitating access to finance and providing specific physical infrastructure that lowers the initial cost of investment and increases operational efficiency; (iii) improve the policy and regulatory framework for the sustainable development of the cashew value chain, while building capacity in all of its functions (technical and managerial skills, knowledge and innovation, including through proactive attraction and retention of investors and their technical know-how from Vietnam and other countries); and (iv) facilitate market development and trade (including proactive linkages with global buyers). The project complements current sector GoCI policies and programs and reflects lessons from the WBG agriculture portfolio (PSAC and IFC projects) and recent analytical work in Côte d’Ivoire. Figure 2 below summarizes the project’s intervention logic and results chain.



Figure 2: Intervention logic and results chain, Cashew Value-Chain Competitiveness Project



## F. Project Components

25. Under the overall coordination of CCA, project activities will be clustered around three technical components. A fourth component will be dedicated to project management and monitoring. The sections that follow describe, in detail, the four components and their subcomponents.

### **COMPONENT 1: INSTITUTIONAL STRENGTHENING AND CASHEW VALUE-CHAIN GOVERNANCE (US\$14.43 MILLION)**

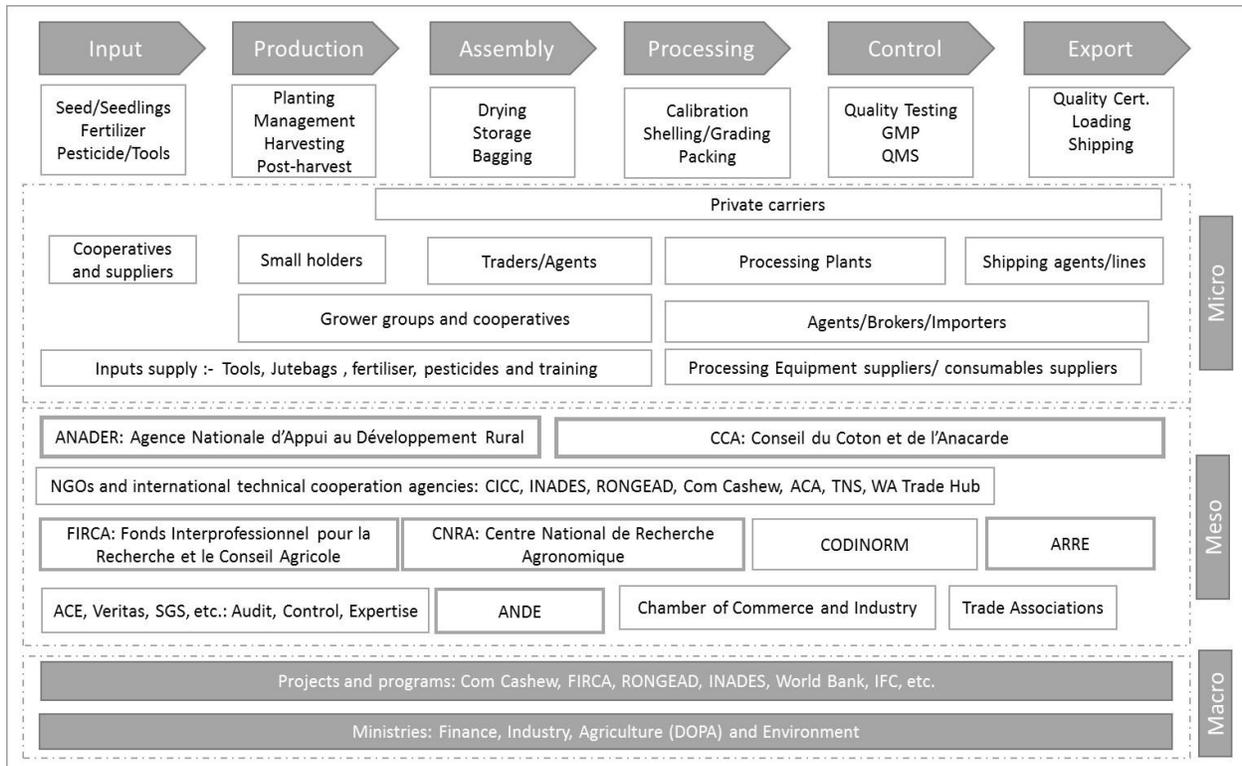
26. This component aims at improving the organization and governance of the cashew value chain to reduce marketing costs and ultimately enhance the chain’s competitiveness. To this end, the project will support a mix of interrelated interventions to strengthen the key organizations involved in the value chain (Figure 3); create a conducive framework and conditions for business by removing administrative obstacles and thus enhance the ability of Côte d’Ivoire to attract new investors; and provide better tools for decision making and planning. Building on PSAC/IFC activities, Component 1 will finance a series of specific activities under the two following subcomponents:

#### ***Subcomponent 1.1: Capacity building of the key organizations overseeing the value chain (US\$8.10 million)***

27. This subcomponent finances a well-designed and diversified capacity-building program targeting the key organizations overseeing the cashew value chain. As Figure 3 illustrates below, the stakeholders along the cashew value chain in Côte d’Ivoire are varied and involved in a number of interlinked agricultural, industrial, and marketing activities.



Figure 3: Main actors in the cashew value chain, Côte d'Ivoire



Source: Adapted from the African Cashew initiative - ComCashew (ACI 2010)

28. Several key organizations oversee the value chain, however, including: (i) CCA, the public regulatory authority that is also mandated to develop the productivity of the entire value chain from production to export, including the processing sector; (ii) the Ivorian cashew inter-professional body, which is responsible for managing and coordinating the private actors in the value chain; (iii) the cashew producers' organizations and their unions, which mostly represents the interests of small-scale farmers; and (iv) the MINADER directorate of professional agricultural organizations (DOPA), which is in charge of overseeing the process for setting up the cashew inter-professional body and cooperatives.<sup>27</sup> These organizations will be strengthened in the following ways:

- a) *Strengthen the capacities of CCA in managing the cashew subsector*, so that its staff is able to provide better services to producers, processors, and traders. This effort will involve measures related to organizational development, building capacity to lead and manage stakeholder processes, and training in quality control and marketing. CCA will also be

<sup>27</sup> Here it is important to note that many actors operate in the loosely structured domestic cashew value chain, managed by CCA. About 330,000 small producers in northern and central Côte d'Ivoire produce RCNs, very often alongside cotton and food crops. Although a limited number of domestic processors buy a small part of RCN production (about 5–7 percent), most is purchased and then exported as raw nuts to India and Vietnam. A large (unknown) number of mostly small, non-registered village traders buy nuts at the village level and deliver them to wholesalers, most of whom are pre-financed by exporters because they cannot mobilize funding from local banks. In 2016, CCA licensed 1,192 buyers (companies, cooperatives, or individuals, number of village traders unknown), 129 exporters (of which 18 are cooperatives), and 6 processors. Other important actors in the value chain are CNRA and ANADER, which have recently initiated significant programs in support of the cashew sector, and FIRCA, which manages/finances cashew research and extension programs.



equipped with a geo-referenced MIS for the sector to enable better planning and management of value-chain operations. The GIS module of the MIS will capture reliable information on the number of producers, number and ages of trees, volume of production and processing per region, market evolution, and other socio-economic and ecological factors to facilitate monitoring and evaluation of value-chain performance and decision making. This MIS will help also for knowledge management and action at the relevant scales for decision-making in response to climate change related risks.

- b) *Support establishment of the Ivorian cashew inter-professional body* through organizational development measures (including capacity building in administration) and by making members aware of the benefits of participation (such as communicating industry needs to political decision makers, service provision, and sourcing of equipment in bulk). Activities will also include the provision of specific long-term TA as well as short term specialized expertise; the organization of forums and exchange visits (mainly South–South visits); the provision of transport, office, and IT equipment; and the provision of funding to cover the initial operating costs of the inter-professional body (staff recruitment, rent of the head office, and so on). Recurrent operating costs will eventually be supported by the inter-professional body itself.
- c) *Strengthen the cashew producers’ organizations and their unions* to enable them to provide the services that their members require. This activity includes support for the legal registration of such organizations and for training their officials in the structure and principles of cooperatives as well as instilling technical and managerial skills for good governance, operational management, financial management and auditing, business development, marketing plans, and creditworthiness. The project will make use of the IFC Agribusiness Leadership Program (ALP), which combines SCOPEinsight assessments, classroom training, and coaching in a program of 6–24 months to measurably improve the management skills and professionalism of farmer organizations. In addition, cooperatives will receive TA to prepare business proposals and develop stable buyer-supplier relationships that benefit from funding through financial institutions. Cooperative unions will receive transport and IT equipment and support to facilitate the organization of their annual assemblies.
- d) *DOPA will receive support* to help in the process of structuring the cashew actors in professional entities, establishing the cashew industry inter-professional body, and supervision of cashew producer organizations’ accounts. DOPA will receive TA (short-term specialized expertise), support to organize workshops, and IT equipment. All equipment under this component will be in accordance with best practice for energy efficiency.

29. Under the oversight of MINADER and MIM, CCA will implement activities under Subcomponent 1.1. Activities related to capacity building for cooperatives and their unions will be implemented in partnership with IFC. Specialized service providers with experience in value-chain upgrading and GIS/MIS will be contracted to provide training and advisory services as necessary.

***Subcomponent 1.2: Improving the business environment (US\$6.32 million)***

30. Côte d’Ivoire’s cashew industry faces market failures that need to be addressed if this “nascent” industry is to develop and contribute to economic growth, job creation, and poverty reduction. Compared to large firms, Ivorian cooperatives and SMEs are more affected by regulation and transaction burdens



(*business environment constraints*), have little access to credit (*finance constraints*), and have limited access to information, advisory services, technology, and innovation (*knowledge constraints*).

31. *With regard to improving the business environment*, the project will finance:

- a) *An assessment of the regulations and licenses required to sell, buy, and trade cashew products* to reduce marketing costs (from the farm gate to processor and port, and onward to the international consumer). This activity involves financing studies and diagnostics of current procedures in relation to competing markets and countries, identifying opportunities for simplification, digitalization, and streamlining processes, and testing and implementing such measures. A key issue that has already been identified is the number of tax payments to be made from farm to factory to port, and the number of intermediaries involved.
- b) *Support for MIM to implement and monitor measures (already planned) that are designed to improve the business environment*. These measures are derived from a cashew competitiveness study by MIM in 2017 and include, among others: (i) fiscal incentives defined in terms of duration, duty exemption on capital expenditures for processing, and duty exemption on spare parts and consumables; (ii) the subsidy based on kernels produced locally, which should be clarified and defined in terms of duration (currently set by the CCA at CFA 400 per kilogram of processed kernels); and (iii) a fast-track mechanism for processing investment incentives.
- c) *Support for ANDE to ensure that all cashew processing enterprises meet environmental and social standards, and to simplify the procedures and reduce the cost of obtaining environmental permits*. This support will finance: (i) an environmental awareness campaign targeting cashew-processing SMEs and (ii) capacity building for ANDE to implement an electronic platform to facilitate environmental impact assessment.

32. *With regard to facilitating access to finance*, in addition to establishing a DFF (Component 3), the project will support the development of sound relationships between producer groups/cooperatives and processors/buyers by introducing better developed contracting and contract fidelity modalities, including: (i) tailoring contracts to the conditions of the Côte d'Ivoire cashew value chain; (ii) educating bankers on the nature of businesses within the value chain; (iii) conducting workshops to sensitize all actors about the benefits of such contracts; (iv) monitoring compliance in implementing the terms of these contracts; and (v) devising contract dispute resolution mechanisms, such as arbitration procedures, in the context of the Commercial Court system that was developed under a previous World Bank project. The project will also support the implementation of measures to enhance farmers' access to financial services such as the channeling payments for RCNs to farmers through (mobile) accounts, the development of information registries about farmers' historical RCN production/delivery that could be provided to formal lenders (via the MIS cited above, contingent upon farmers' consent), and measures to facilitate the deduction of loan payments from the proceeds of cashew production.

33. The project will facilitate contractual relationships between producers, processors, and financial institutions by accelerating implementation of WRS regulations recently adopted by the government through capacity building for ARRE<sup>28</sup>. Activities to be financed in this connection include expertise for the development and implementation of an electronic registry system for warehouse receipts; training of

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<sup>28</sup> ARRE was established by Presidential Decree No. 2016-504 in July 2016 in accordance with Law No. 2015-538 of July 2015, for WRS.



financial institutions; provision of the required logistical and IT equipment; and development of an outreach communication strategy for ARRE.

34. *With regard to knowledge access and the provision of advisory services to the cashew processing industry* (technical and business advice as well as R&D and innovation), the project will strengthen CITA, currently being established in Yamoussoukro by CCA. CITA presently receives technical support from Félix Houphouët Boigny (FHB) Technical Institute and Ho Chi Minh University. It should evolve into a cashew processing and management center of excellence with the following responsibilities (Figure 4): (i) train cashew managers and entrepreneurs in cashew process management, quality management systems, and business management; (ii) train cashew factory floor supervisors and workers in the cashew process, including elimination of waste and maximum recovery of by-products; (iii) provide advice on strategies for procuring cashew processing equipment, and particularly on addressing problems associated with the installation and online management of processing equipment procured from a range of suppliers and the associated risks for processors; (iv) test and assess new developments in processing technology; (v) support the development of HACCP quality management systems or equivalent at every cashew processing plant in cooperation with other state agencies (this activity will incorporate a “for profit” certification development service concentrating on HACCP, GMP, and possibly ISO for cashew processors); and (vi) develop awareness of the uses of byproducts from processing (such as CNSL<sup>29</sup> and shell and de-oiled shell cake) and their marketing.<sup>30</sup> Special emphasis will be on promoting the use of by-products (cashew shells) as an alternative source for energy production.

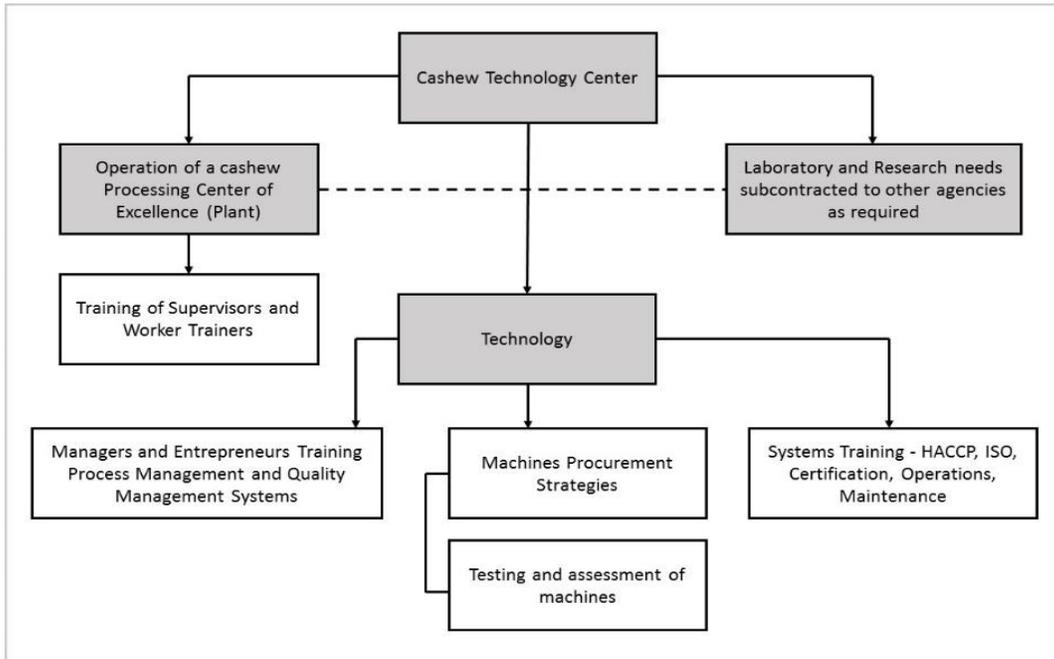
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<sup>29</sup> CNSL is the pericarp fluid of the nut, a viscous liquid contained in the honeycomb inner shell of the raw cashew between the shell and the kernel. CNSL has an economic value and can provide many phenolic compounds with far greater versatility than petrochemical phenols. The recovery rate is 20 percent in line with industry experience.

<sup>30</sup> The production and marketing of byproducts is an important element of the profitability of cashew processing. Many factories in Côte d’Ivoire and elsewhere in Africa do not use byproducts; it is typical to see shells piling up on all sides of the factory. Sales of byproducts can reduce the cost of processing by up to 20 percent, and they are an essential part of the environmental management of processing operations.



**Figure 4: Structure of CITA (the proposed Cashew Innovation and Technology Center)**



35. Capacity-building for CITA financed under the proposed project will include: (i) help with structuring the organization to involve industry participants, make it demand-driven, and define its technology research, development, and dissemination strategy accordingly; (ii) technical expertise and training for CITA staff; and (iii) support for the strategic acquisition of processing and laboratory equipment for demonstrations and training, in the context of the rapid change pervading the industry and of the high costs of replacing equipment as well as buildings expansion/rehabilitation, acquiring logistics and IT equipment. Building design and equipment will be based on best practices for efficient energy use.

36. Activities under Subcomponent 1.2 will be implemented under the supervision of CCA and in close cooperation with MIM. Other key actors to be engaged in this subcomponent include the Ministry of Commerce, ANDE, ARRE, and CITA.

37. **Summary costs for Component 1.** Table 4 summarizes the costs and financing plan for the activities to be undertaken in Component 1.

**Table 4: Project costs for Component 1—Institutional Strengthening and Value-Chain Governance**

Subcomponent	Cost (US\$ millions)		
	Total	IBRD	Beneficiaries
1.1 Capacity building of the key organizations overseeing the value chain	8.11	8.11	0.0
1.2 Improving the business environment	6.32	6.32	0.0
<b>Total</b>	<b>14.43</b>	<b>14.43</b>	<b>0.0</b>



## **COMPONENT 2: PRODUCTIVITY ENHANCEMENT AND IMPROVED ACCESS TO RCN MARKET (US\$57.83 MILLION)**

38. Component 2 intends to increase on-farm cashew productivity and improve access to RCNs by domestic processors and exporters. The expected outcome is an increase in the volume and quality of marketable RCNs, which will increase producers' incomes and employment and hence reduce poverty in cashew-growing areas. To this end, the project will support investments focusing on: (i) accelerating and expanding the national program for cashew research and seedling development; (ii) facilitating farmers' access to improved extension of GAPs and other specialized services such as high-yielding planting material and small-scale mechanization; and (iii) improving rural road infrastructure. These interventions will all contribute to climate change adaptation and resilience through improved agricultural management and agroforestry systems. The resulting establishment and improved management of cashew tree agroforestry systems will improve existing carbon pools, increase aboveground and soil carbon stocks, reduce soil degradation and thus mitigate greenhouse gas emission. Specific interventions under Component 2 are described next.

### ***Subcomponent 2.1: National cashew research and seedling development program (US\$8.21 million)***

39. Through Subcomponent 2.1, the project will promote a national cashew research and seedling development program in partnership with CNRA, FIRCA, and academia. The program will build on research launched since 2009 to identify improved tree varieties (larger nuts and higher yields)<sup>31</sup> and multiply them through grafting in nurseries in three regions (Savanes, Denguélé, and Zanzan) to provide planting material.<sup>32</sup> More specifically, the project will support implementation of PNRA, prepared under PSAC, and expand its research program through the following activities: (i) continued research on high-performing tree varieties (to be tested, referenced, and used for multiplication); (ii) producing new germplasm that is resilient to climate change; (iii) a feasibility study, construction, and equipping of a specialized laboratory to produce improved planting material in vitro; (iv) strengthening human resources in cashew research by funding specialized training, notably in plant genetics, variety development, and plant protection; (v) technology testing (planting material, processing equipment, and so on), transfer, and dissemination of research results, including exchange seminars, workshops, and demonstration trials; and (vi) logistics and IT equipment. This subcomponent will also promote research on such issues as the establishment and management of cashew orchards, fertilizer formulas for different agro-ecological zones, and methods for the integrated management of major cashew diseases and pests. The phytosanitary aspects and risks of the regional and international exchange of germplasm and planting material will be monitored carefully to avoid introducing new plant diseases and pests. Finally, the project will also support a research partnership program with Embrapa (Brazil), the CRDC (Vietnam), NARI (Tanzania), and DCR (India).

40. FIRCA will implement Subcomponent 2.1 on behalf of CCA. FIRCA will establish contracts and agreements with research and extension institutions (CNRA, universities, and others).

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<sup>31</sup> Ivorian cashew nuts are in the medium quality bracket compared to RCNs from other producers in the region. Ghana, Benin, and Guinea Bissau all produce RCNs of higher quality (albeit in significantly lower volumes). Farmers in Côte d'Ivoire plant trees from seed of varieties that are not the product of scientific selection or breeding programs. The introduction of a better organized, more scientific approach to extending advice on production practices will improve not only yields but quality, thus benefiting processors as well.

<sup>32</sup> These research programs were funded through PSAC and FIRCA and executed by CNRA. In parallel, the African Cashew Initiative (ACI), with funding from the Bill and Melinda Gates Foundation, has also implemented adaptive research to identify high-yielding tree varieties.



***Subcomponent 2.2: Support for cashew extension services and technology transfer (US\$34.31 million)***

41. The project will scale up and strengthen the national extension program across the project area and focus on training farmers in GAPs for cashew production and quality management, including post-harvest handling.<sup>33</sup> It will also help farmers gain better access to high-yielding planting material. To date, the propagation of cashew planting material has relied primarily on unselected seed, resulting in more failures of germination and growth, and the perpetuation of substandard genetics and lower yields. Trees established from seed rather than seedlings also require more time to start producing.<sup>34</sup>

42. *Support for dedicated cashew extension services.* The project will support the establishment of CDCs, which will be dedicated centers for cashew extension support, within the three main agro-ecological zones for cashew production in Côte d'Ivoire. The CDCs will offer training and advice to cashew producers through traditional extension methods (for example, model farmers and farmer field schools) as well as e-extension to take advantage of modern information and communication technology. The training services offered to growers through the CDCs will cover a range of general topics related to GAPs for cashew production, such as establishment techniques; planting densities; intercropping combinations; maintenance and improvement of cashew orchards; pruning plans; harvesting; post-harvest storage, handling, and quality control; pest and disease management; and soil conservation, mulching, and use of green residues; all contributing to improving productivity and farmers resilience to climate change. The training content will include specialized topics such as fire prevention in orchards (a major problem for farmers) as well as topics related to farm management principles and market-orientation, such as farming as a business, marketing, budgeting, applying for credit, and managing crop logistics. It will also feature environmentally safe methods of pesticide use, following practices well adapted to local needs such as those already developed in training projects like the ComCashew farmer training across West Africa, including Côte d'Ivoire. The CDCs will serve as the logistical base for these training activities. Given the considerable area to be covered by the project, however, a larger extension network will need to be established to reach the entire population of cashew farmers. To that end, the project will identify and strengthen additional training and advisory service providers, including NGOs and youth enterprises specialized in the provision of such services (and other support services, including grafting, phytosanitary applications, and harvesting). These providers will be financially supported and equipped by the project to reach out to farmers. The project is expected to support some 200 youth enterprises.

43. This extension training will be conducted in groups over three or four sessions spread over the year. It will address basic issues such as tree overcrowding and other simple annual tasks (pruning, orchard floor cleaning, harvesting, and drying). The fact that the training is straightforward and can be carried out per established methodologies means that many farmers can be reached over the five-year project period, although starting from year two onward training will be weighted more heavily to preparing CDC staff and trainers. It is estimated that there will be a need for approximately 300 trainers operating in teams of three people, supported by the youth enterprises mentioned above. The trainers will be drawn from the existing pool of ANADER advisors, model farmers trained by ComCashew (which has already trained 75,000 farmers in Côte d'Ivoire), and the new pool of trained people. The training of the trainers will be contracted and take place in the initial six months of the project.

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<sup>33</sup> A pilot extension program funded through FIRCA was initiated in 2012 and executed by ANADER in the regions of Korogho, Bouaflé, and Bondoukou to help producers improve RCN quality.

<sup>34</sup> Cashew trees start losing productivity after 20 years, and it is recommended that they be replaced with new seedlings or grafted plants.



44. Farmer training has been shown to be highly effective in raising rural incomes. In previous training schemes, on-farm yields were improved by up to 255 kilograms per hectare, boosting income of the typical farm holder by around US\$350 per annum. When improved yields are accompanied by targeted quality enhancements, farmer income is expected to increase by a further US\$50 per annum. The farmers who complete the training will be given a subsidy in the form of jute bags for packing and storage, a tarpaulin for drying harvested RCNs, and access to seedlings/grafts based on their needs.

45. Specific extension activities to be financed under the proposed project are: (i) constructing or rehabilitating and equipping eight CDCs (at least two in each of the three agro-ecological zones), to serve as centers for cashew extension as well as the dissemination of planting material (see the next paragraph); (ii) developing and disseminating related extension materials in various formats (technical and economic reference guides, TV, radio); (iii) scaling up the e-extension service developed under WAAPP with a focus on content, presentation, and delivery modes that would be most effective in meeting the needs of small cashew producers;<sup>35</sup> and (iv) providing transport equipment (vehicles and motorcycles) and IT and audio equipment to facilitate extension outreach to farmers.

46. *Support for access to improved planting material and on-farm services.* In partnership with the private sector (including farmers who produce planting material), the project will support a seedling and grafting development program by establishing a nursery system based on the best quality seed in Côte d'Ivoire to replace aging trees and expand cultivated area as outlined above. The nursery system will be developed under the oversight of the PNRA team and implemented by the CDCs. The project will finance: (i) equipment and inputs to establish the nurseries and produce the initial stock of seedlings and grafts; (ii) 90 tons of seed to supply the nurseries; (iii) training for nursery operators in plant production, handling, storage, and distribution (public and private sector and research institute); (iv) a platform linking research on improved seedlings to growers to undertake applied trials in farmers' fields; and (v) the distribution of seedlings. The target is to produce 2.6 million seedlings over five years to be used for new plantings. Given the lead time needed to produce seedlings, this schedule is heavily weighted toward years 4 and 5. A further 400,000 seedlings for grafting will be produced for an identified rehabilitation project of CCA and 2 million grafts for the general rehabilitation of aging trees. The grafting activities are more evenly spread over the life of the project and are therefore given priority.

47. About 225,000 individual cashew producers are expected to benefit from cashew extension support, training, and improved planting material under this subcomponent. Over the project period farmers who participate in training will receive jute bags and will have access to improved drying technology of RCNs to help build good post-harvest practices. This effort expands on a CCA project that currently supplies only limited quantities of jute bags.

48. The CDCs will also serve as the logistical base for better access to planting material and on-farm advisory services, but as noted, the project covers a considerable area and must establish an efficient scheme to reach a large population of farmers. For that reason, the project will identify and strengthen additional training and advisory service providers, including the cashew service hubs (see Subcomponent 3.1 – para. 74). These providers will be financially supported to reach out to farmers. In this case as well, content will be locally adapted based on practices used in training projects offered by ComCashew and others in West Africa. Model farmers will be encouraged to organize field days and training events.

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<sup>35</sup> WAAPP has made it possible to disseminate technical information in seven languages to 18,000 producers via telephone through a call center and a voice server established within ANADER.



49. FIRCA will implement activities under Subcomponent 2.2 through contracts established with national agricultural research and extension advisory entities (ANADER, CNRA, and others) and their specialized staff at the district and village level. International development partners (such as ComCashew and the World Agroforestry Center which has been heavily involved in similar activities across West Africa), and private training and advisory service providers (seed and plant multipliers, and youth service enterprises, input providers, etc.) will also be contracted as needed.

***Subcomponent 2.3: Rehabilitation and maintenance of feeder roads (US\$15.31 million)***

50. The poor road network leads to high transportation costs and is a major constraint on access to markets for cashew producers in several parts of northern Côte d’Ivoire. Subcomponent 2.4 aims to remove these constraints by implementing a feeder road rehabilitation and maintenance program. This program will follow the national strategy for developing the rural road network (SNERR), which includes a partnership between the State and private operators (inter-professional bodies) for the selection of priority roads for rehabilitation, maintenance, or construction and for co-financing those activities.

51. Following an inventory of the rural road network in project areas, a rural road improvement program will be developed jointly with CCA and AGEROUTE (the national road management agency). Initially, the selection of roads will focus on the Gbéké, Hambol, and Gontougo regions, where cashew production is high but producers are poorly served by the road network, leading to high, unstable transportation costs. The project will finance rehabilitation of 300 kilometers of feeder roads involving heavy reprofiling and treatment of critical bottlenecks in selected spots (small bridges and culverts); continuous repaving of 200 kilometers of feeder roads and maintenance and light reprofiling of these roads over the duration of the project (in total approximately 1,600 kilometers). The program includes technical studies, environmental and social impact assessments, and mitigation measures. To ensure the sustainability of this investment, a community-based road maintenance strategy will be developed and related road maintenance associations strengthened or formed at the community level. These associations will be provided with low-cost hand tools and equipment to undertake routine maintenance. In addition, the rehabilitation program of the feeder roads will incorporate measures to adapt to climate change risks, including basic drainage infrastructure, increasing vegetation buffers between the road and bushland, and maintenance of verge vegetation. The rural road program under Subcomponent 2.4 will be implemented under the supervision of the AGEROUTE through private civil works contractors recruited through competitive bidding.

52. **Summary costs for Component 2.** Table 5 summarizes the costs and financing plan for the activities to be undertaken in Component 2.

**Table 5: Project costs for Component 2—Productivity Enhancement and Improved Access to RCN Market**

Subcomponent	Cost (US\$ millions)		
	Total	IBRD	Beneficiaries
2.1 National cashew research and seedling development program	8.21	8.21	0.0
2.2 Support for cashew extension services and technology transfer	34.31	34.31	0.0
2.3 Rehabilitation and maintenance of feeder roads	15.31	15.31	0.0
<b>Total</b>	<b>57.83</b>	<b>57.83</b>	<b>0.0</b>



**COMPONENT 3: SUPPORT TO PRIVATE INVESTMENT IN POST-HARVEST AND PROCESSING INFRASTRUCTURE (US\$196.25 MILLION, INCLUDING US\$111.00 MILLION IBRD AND US\$85.25 MILLION BENEFICIARY CONTRIBUTION)**

53. Component 3 aims at increasing the volume and value addition of locally-processed RCNs through threefold inter-related interventions: (i) support to the cashew post-harvest and processing infrastructure; (ii) increased access to investment capital and risk management instruments for cashew value chain participants; and (iii) development of cashew markets and trade.

***Subcomponent 3.1: Cashew post-harvest and processing Infrastructure development (US\$106.16million, including US\$82.86 million IBRD and US\$23.30 million beneficiary contribution)***

54. Subcomponent 3.1 addresses the important lack of infrastructure, related to both storage and processing activities that limits private investment and hinders development of a competitive and inclusive cashew processing industry in the country. It will complement PIDUCAS, which plans investments in key economic and social infrastructure in Bouaké and San Pedro. It will particularly support the development of warehouse facilities and integrated cashew processing platforms in the major producing areas of northern Côte d'Ivoire (Bouaké, Korhogo, Bondoukou, and Séguéla)<sup>36</sup>. These facilities will serve as flagships for the subsector and new investors, characterized by process excellence, innovation, byproduct and energy efficiency, high quality staff management, processing at different scales and with value-added activities facilitated by technical support, resource sharing, cost sharing, and strong supply chain linkages.

55. *Rationale.* A diverse group of investors is strongly interested in cashew storage and processing in Côte d'Ivoire, including cashew buyers, existing processors and warehouse owners, food manufacturers, logistics providers, and social impact funds seeking opportunities to invest in the cashew subsector. Their interest is explained by the rapidly growing consumption (7 percent per annum) in western countries and the Middle East of edible tree nuts as snacks, protein substitutes and healthy foods, and similar growth in consumption fueled by growing affluence in Asia, particularly India. Investors' interest is also motivated by the realization that the requirements of traceability, sustainability, quality, and environmental protection can best be met by storage and processing close to the source of production.

56. Following Côte d'Ivoire's "post-electoral" crisis of 2010/11, investors were hesitant to invest in the cashew subsector. But the economic environment has improved in the past few years, and the number of projects pursued by domestic and international actors has climbed. However, no projects have come to fruition at any large scale for several key reasons, including the lack of successful, accessible, large-scale industrial storage and processing projects in the country, residual concerns of international investors with placing factories in the hinterland, the time required to build warehouses and factories as self-standing field projects, uncertainty over which mechanized processing options are best, and the lack of an enabling business environment and infrastructure to support cashew processing. The continued stability in the country, combined with the incipient development of the structure and organization of the cashew subsector, have partly allayed investors' concerns. Clearly, however, a stimulus is required to help investors go to the next stage and turn their projects into real operational undertakings.

57. ***Development of warehouse infrastructure.*** The cashew value chain will need to considerably increase the capacity of storage facilities as it transitions towards processing a much larger share of RCN

<sup>36</sup> Other regions may be also considered depending on private sector interest and demand.



production. In particular, the cashew sector must invest in storage facilities designed to international standards to sustain long-term storage and preservation of quality RCNs. The project will provide financial support for an additional storage capacity of 190,000 tons, of which approximately 160,000 tons will be transit-type storage suitable for short-term assembly of RCNs for export, and the remainder will be modern warehouses suitable for longer-term storage of cashews. These warehouses will be available to processors, traders, cooperatives, or professional warehouse management or logistics companies; they will enable these operators to have options as they assemble, dry, bag, and locally store cashews and cashew products. These facilities will also promote competition between the cashew processing and RCN export trades, offer locations to keep inventories as collateral for lending by financial institutions, foster quality enhancement, and reduce post-harvest losses. Every effort will be made to use the facilities for cashew as well as other commodities (where no risk of cross contamination exists), so that storage capacity is used across the entire year and profitability is increased. All in all, post-harvest infrastructure will help to improve returns and reduce risk all along the cashew value chain from farm production to export activities, including processing.

58. The project will co-finance 50 percent of the investment in warehouse facilities by private operators through its Dedicated Financing Facility (DFF, see para 78 below). As part of the warehouse rehabilitation and expansion under this subcomponent, the project will offer a series of regional workshop to train warehouse managers in best practices for the management of warehouses storing RCNs. Drawing on work already done in Côte d'Ivoire and elsewhere, the project will also finance preparation of a Cashew Warehouse Keepers Handbook to serve as a reference for warehouse management and the handling of RCN from intake to the first processing stage. Aside from addressing knowledge gaps in warehouse management and product handling, this guide will raise awareness of the importance of post-harvest handling and accelerate the development of good habits for handling RCNs and preserving quality. All beneficiaries will be trained in the use of the handbook.

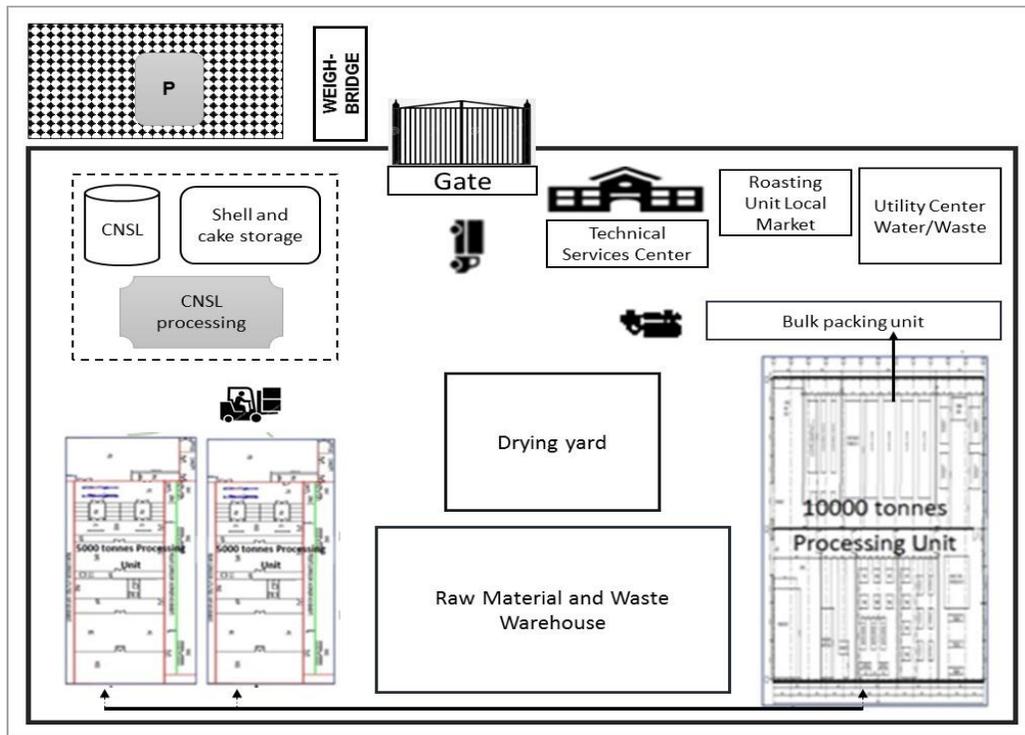
59. The warehouse development program will be implemented by CCA in partnership with ARRE, taking into consideration individual and/or collective warehouse investment projects geared to supporting the development of the cashew supply chain in Côte d'Ivoire. These investment projects will be based on energy efficiency best practices. The promoters will be also encouraged to make use of construction material resilient to the impacts of climate change.

60. **Development of industrial processing infrastructure.** The project will support the establishment of eight cashew service hubs (CSHs) and four cashew processing platforms (CPPs) to remedy the lack of industrial infrastructure which hinders the development of a competitive cashew processing industry in Côte d'Ivoire. The creation of integrated CPPs, in particular, at this time of high investor interest and subsector improvement, is expected to be the needed catalyst for the subsector to expand. The platforms will provide the incentives and security that address investors' remaining concerns. They will undoubtedly encourage action by domestic and international investors who have shown interest in committing to a project but have not yet broken ground on new factories. The package envisaged combines the advantages of the processing zone and existing incentives. Consultations with prospective investors indicate that the approach is likely to be taken up. Evidence from Vietnam shows how support of this kind can alter the course of a sector: Vietnam went from being an exporter of RCNs to India at the beginning of the 90s to being the largest exporter of cashew kernels 20 years later. Key factors that were conducive to this quick and successful transformation were technical support and equipment innovation for processing, including close alignment of these supports and services with local needs. The same factors underpin the approach to the Ivorian cashew processing platforms.



61. The four integrated CPPs will be developed under the project, based on a PPP scheme aimed at facilitating: (i) access to basic infrastructure; (ii) shared common services and facilities and creation of economies of scale in service provision, including storage facilities, transport, quality control services, waste management, etc.; (iii) improved access to technical support and information and management services; and (iv) a platform to enable business linkages within value-chain actors through effective networking between primary producers, processors, and end-market retailers (Figure 5 below).

**Figure 5: Concept for an integrated cashew processing platform**



62. About 15 hectares is estimated to be required for building each platform. This area will include the core areas for processing, administration, and storage and the roadways, paths, fire breaks, and security zones around the buildings. This structure has several advantages. One is the lower cost of entry and greater flexibility for investors. Another advantage is the reduced risk for the public investor. The lease revenues from the industrial platform and charges from the warehousing and other services will cover the variable costs of operating the processing platform. In that regard, bulk services will remain available to the whole processing sector where capacity exists (for example, CNSL processing and bulk packaging services can be made available to other processors, although the platform operators should have first preference as part of their lease arrangements). A third advantage of the platforms is the lower risk for platform managers, because the investment requirements for equipping the processing facilities ensure that suitably qualified businesses participate in the platforms. The factory investors and operators (rather than the platform managers) are responsible for constructing the buildings, selecting the initial equipment (and related issues arising from that selection), and continued upgrading of the equipment.

63. *Markets.* It is important to realize that the CPPs will not add to the supply of processed cashew



on the world market. Instead, product that is currently shipped to Asia for processing and marketing will be retained in Côte d’Ivoire for domestic processing, and, in this way, the value added will remain in Côte d’Ivoire. The CPPs offer buyers an alternative to Vietnam, which currently supplies up to 75 percent of their needs (including kernels produced from 650,000 tons of Ivorian RCNs each year). By positioning Côte d’Ivoire as an alternative to Vietnam, the platforms can change the risk profile for buyers and demonstrate that Côte d’Ivoire can produce food-safe, good quality cashew kernels. Initial discussions with buyers in the USA and Europe have confirmed a strong interest in sourcing cashew kernels from Côte d’Ivoire if local producers and processors adhere to international quality standards.

64. *Investor profiles.* Prospective investors may come from a range of backgrounds, including Ivorian food and non-food companies as well as international traders and buyers from Europe, the Middle East, and North America. Even Asian trading companies may invest, although it is highly likely that the investors will be new entrants or partnerships between existing players and new entrants. Table 6 summarizes different investor profiles based on actual projects and discussions with prospective investors.

**Table 6: Examples of prospective investors in cashew processing in Côte d’Ivoire**

Investor	Background	Examples	Sale/type
<b>Ivorian company (non-food)</b>	Ivorian company interested in diversifying from its core interests to processing in cashews	Cajou des Savanes, Bouaké (IPS)	Medium- to large-scale private
<b>Ivorian food company</b>	Manufacturer of cacao butter with a substantial processing operation interested in applying food processing expertise to RCNs	Ivory Cacao Products interested in 10,000 t factory project	Large-scale private or partnership
<b>Ivorian cooperative</b>	Cooperative in cotton and cashew developing its value addition business by processing cashew and utilizing strong supply chain linkages on behalf of its members	A large cotton and cashew cooperative interested in added value activity	Large scale
<b>International cashew buyer</b>	Large buyers in Europe and the United States with high dependence on Vietnam	The buyer of the largest cashew user in Europe spent 3 months in Bouaké in 2017 to learn about the Ivorian cashew subsector; the third-largest roaster in the United States market is interested to expand sourcing links at origin	All scales and partnerships can be considered
<b>International RCN trader</b>	Companies based in Singapore and Hong Kong SAR, China with knowledge of the sector are interested in expanding into cashew processing	A number of well-established traders on a global level have expressed interest in processing in Côte d’Ivoire.	Medium to large scale
<b>Impact investors</b>	A range of investors have the primary objective of making a social impact, and cashews are widely recognized as an interesting vehicle for this type of investment	A United States engineering company at the early stages of building a cashew factory in Côte d’Ivoire; Anatrans in Burkina Faso established for some years	Most likely medium scale, with interest in partnerships
<b>Supermarkets</b>	Interest in supply chain development is increasing among supermarkets, owing to their growing interest in making a social impact and shortening the supply chain	Major supermarkets such as Price Costco and Walmart have visited Côte d’Ivoire in recent years; Albert Heijn, J. Sainsbury, and Marks & Spencer are all associated with ComCashew	Most likely only with partners

65. *Identification of sites for the integrated cashew processing platforms.* Several key considerations influenced the identification of sites for the CPPs; each consideration is related largely to prospects for



attracting investors and promoting success. First, a location close to the source of quality raw material that is properly harvested, dried, and stored<sup>37</sup> is important, because it allows the processor to build linkages with producers and encourages the production of better material and proper drying. Second, the availability of labor is important, preferably urban workers with experience of factory work practices.<sup>38</sup> A third consideration is that the supply chain should be local, reliable, and capable of providing sufficient volumes of raw material to at least break even. Ideally, processors should be linked to producers through cooperatives or farmer groups. By locating the processing platform closer to the source of supply, the processor can pay a better price for RCN; processing will reduce the volume of product significantly and make it cheaper to transport, extending the value chain's competitive advantage to the export trade. A fourth consideration is communication: access to telephone and internet is essential, and poor communication infrastructure is often a problem for factories in remote locations. Fifth, the platforms will need access to trucking and shipping routes to move product to market. A final consideration for situating the processing platforms is the impact on the supply chain for existing processors. Based on these considerations, four locations were identified (Table 7). These are listed below in order of preference, but other sites may be considered depending on private sector interest and demand.

- (a) **Bouaké** is an ideal location for the first processing platform. The region has a good supply of raw material, local experience with cashew processing, and good road and rail links to raw material suppliers and export ports, with further improvements in urban road infrastructure and logistics to be provided under PIDUCAS. The existence of zoned industrial areas adds to the attractiveness of this location.
- (b) **Bondoukou (Zanzan District)** is attractive for the high quality of RCNs in the region and the growing population. Road links may be more difficult than in Bouaké, but the higher quality of the raw material will be attractive to investors and offsets that disadvantage.
- (c) **Korhogo (Savanes)** has small-scale facilities that have processed RCNs for some years already, and this accumulated knowledge and experience are important for the establishment of a new processing platform. The area produces an adequate supply of RCNs, although the quality may be lower than in the other areas. The population is sufficiently large to support the labor needs of a factory, and the social impact of the processing platform will be high because it will provide work to younger people who may not be able to make a living through smallholder agriculture.
- (d) **Séguéla** produced 65,000 tons of RCNs in 2016, and the good quality of this production has encouraged the installation of a few cashew processing enterprises in the area. It is connected to the San Pedro port by an asphalt road in relatively good condition.

66. The development of the four cashew processing platforms will be undertaken in phases, based on demand from private investors.<sup>39</sup> As discussed, each platform will offer the necessary basic infrastructure to investors, suitable for cashew processing and connected to water and electricity services. Cashew factories are relatively straightforward in terms of construction. Investors will build and equip the factory and lay it out as they prefer. Clustering this infrastructure in an area that offers essential services—warehousing for raw materials and shells, bulk cleaning and packaging, CNSL processing (essential for the

<sup>37</sup> The difference between a 46-pound yield and a 50-pound yield and between properly dried and poorly dried material could amount to sales revenue of US\$500,000–700,000 per annum for a 10,000-ton RCN processor.

<sup>38</sup> Cashew factories have experienced high levels of absenteeism, often due to workers' seasonal agricultural activities. This behavior can mean that up to 50 percent more than the required number of workers are available and "on the books."

<sup>39</sup> Sites for the Korhogo and Bouaké processing platforms have been identified and pre-feasibility studies have been initiated. Consultations are taking place with potential investors to discuss their needs.



economics of processing as well as managing environmental risk), and miscellaneous technical services, including catering as a paid outsourced service—is expected to reduce investment costs and encourage scaling up. As the platform develops, services could expand to include a plant to manufacture industrial alcohol from cashew apples, a cashew milk production plant, the manufacture of other value-added cashew products such as cashew butter and cashew brittle, and a plant to generate electricity from cashew shells.

**Table 7: Sites of prospective integrated cashew processing platforms**

Criterion	Bouaké	Bondoukou	Korhogo	Séguéla
<b>Raw material quantity and competition from processors</b>	80,000–100,000 t and some competition	Circa 150,000 t and some competition	85,000–185,000 t and little competition	45,000–65,000 t and no competition
<b>Labor</b>	Population circa 600,000 with a history of cashew processing and existing units	Urban population 120,000 with a history of cashew processing	Urban population circa 100,000 and some history of processing, with small units prevalent	Estimated urban population of 200,000+, with minor history of processing
<b>Supply chain</b>	Existing supply chain for processing and export of RCNs	Highly competitive supply chain, given that the quality of the product is much appreciated by the RCN export trade	Less competitive supply chain but evidence of lower quality suggests that drying practices are of a lower standard than elsewhere	Less competitive supply chain than Bouaké but better quality than Korhogo expected; located close to Bouaké chain
<b>Access to trucking and shipping</b>	Very good	Good	Long distance partially poor roads	Moderate
<b>Communication and basic infrastructure (access roads, water, energy, internet, etc.)</b>	Good	Improving <sup>†</sup>	Improving	Moderate/improving
<b>Distance to port (km)</b>	349	420	633	473

<sup>†</sup> Roads have improved following rehabilitation of the Akoupé–Bondoukou Road.

67. Investors are expected to be found for the following ventures: the processing units, operation of the warehouse, small-scale roasting for the domestic market, and bulk packaging. In contrast, it is likely that the CNSL processing units,<sup>40</sup> which would be the first ones in the country, would need some initial State support, at least in the first location. These units could simply engage in basic extraction of CNSL without refining or further processing it for sale to biofuel users (power generators in Europe buy CNSL from Brazil, for instance, as part of their carbon offset commitments). This approach would address the reluctance to invest in a more ambitious CNSL unit until the platform is well established with a proven supply of shells. Once the initial business is operational and proven, the problem will not arise in the other platforms. The targets for investment will be the end-buyers of CNSL, and a mechanism will be sought to encourage these investors; most likely it will take the form of a PPP or MoU with an interested investor. Alternatively, shells can be stored for some time in fairly basic conditions, but the eventual establishment of CNSL processors is mandatory because the environmental impact of dumping about 15,000 tons of shells every year from each platform is unacceptable.

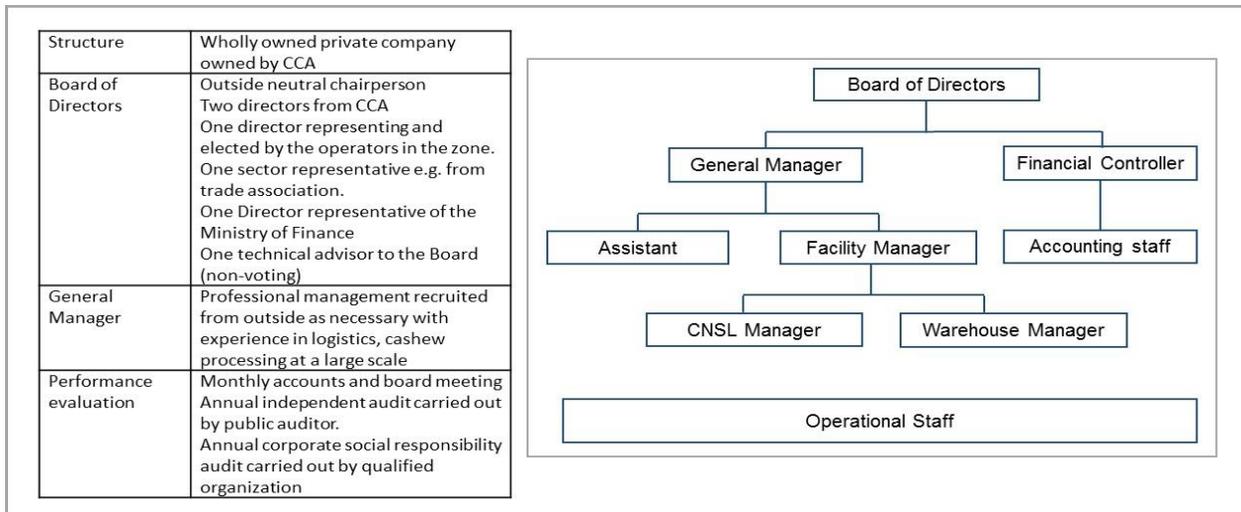
<sup>40</sup> To produce cardanol, a phenolic lipid obtained from anacardic acid, which is the main component of CNSL, a byproduct of RCN processing.



68. It must be acknowledged that limited processing experience exists in Côte d'Ivoire, and many small factories have failed, mainly due to poor management and initial investment decisions (especially related equipment choice), although some plants were in areas subject to civil unrest. These failures demonstrate why the provision of full-service CPPs is integral to the proposed project. A ready-to-operate platform is attractive to investors for many reasons. The investment cost is lower, and the market entry strategy is less risky. Investors can execute their projects more rapidly because planning permissions, services, and civil works will all have been done by the platform operators. The location has already been researched and chosen by the platform operators, enabling them to obtain approval for business plans more quickly and to finance them at a lower cost. The development of the cashew service hubs (see para 73) to perform procurement and supply chain outreach is also attractive to investors.

69. *Platform management and operations.* Each platform will be run as a separate profit center, owned by CCA as a private limited company and managed by staff employed specifically for that task.<sup>41</sup> The shareholders will be CCA; they will include representatives from other state agencies and an elected representative of the companies operating in each platform. This approach will facilitate the longer-term objective of selling the cashew processing platform “as is” to private investors, including companies operating within the zone. The processors operating within the platforms will have strictly commercial relationships governed by long-term leases and contracted relationships for the warehousing, technical, packaging, or CNSL processing services. Services would be rendered as per the terms and pricing agreed on entry to the processing platform, with some fixed period prior to price review. The proposed structure of each platform is provided in Figure 6.

**Figure 6: Cashew processing platform management and operations**



70. This subcomponent will finance site development and promotion for the cashew processing platforms, which will include the following investments: (i) in-depth technical and economic feasibility studies for platform development, including a market demand assessment, sizing of necessary industrial land, master planning and development, business development plan, environmental and social

<sup>41</sup> CCA has limited experience with managing this kind of facility, but it has a good understanding of the cashew market in Côte d'Ivoire. Its network has good connections to cashew organizations that can offer guidance on processing equipment and facility establishment—not the least of which is their cooperation with the cashew processing equipment sector in Vietnam.



safeguards, and so on; (ii) the construction of the platform’s critical infrastructure (access and internal road network, leveling and drainage, electricity, communications, and water supply) and common services (such as an administration building, storage facilities, technical service center, quality control laboratory, and waste disposal); (iii) an investment promotion campaign for the site, including the development and implementation of an aftercare program for the retention and expansion for the cashew processing investors; (iv) establishment of its management structure; and (v) a network of linked sub-regional storage and satellite centers feeding into the platforms (the cashew service hubs, see para 72). The private sector will provide the necessary investments in the buildings and the processing equipment (plants), and pay for their operating and maintenance costs. It is envisioned that each platform will have one semi-mechanized factory with a capacity of 10,000 tons of RCNs, targeting export markets in the USA, Europe, and Middle East; two semi-mechanized factories with a medium-scale capacity of 5,000 tons, also targeting export markets in the USA, Europe, and the Middle East; and a small-scale roasting facility with mixed manual/semi-mechanized processing and retail packaging, targeting domestic and regional markets for finished consumer products. Commercial services and byproduct processing will include at full development a bulk bag packing center to meet buyers’ needs and enhance value, a CNSL refinery manufacturing cardanol and residol from cashew nutshell (or CNSL for export and domestic markets for high heat manufacturing environments), domestic sales of shell pellets for biomass fuel, cashew testa<sup>42</sup> packaging material, animal feed, or manufacturing dyes. The cashew processing platforms will demonstrate to future investors that processing can succeed in Côte d’Ivoire. The platforms will act as a focus for the development of processing and provide an outlet for Ivorian farmers in their own country, with whom long-term relationships can be built.

71. Once operational, the cashew processing platforms are expected to process and export the volumes of production indicated in Table 8.

**Table 8: Expected processed and exported volumes of production for each processing platform**

Products and volume for each platform		Value each year (US\$ millions)
<b>Inputs</b>	21,000 t in-shell cashews (RCNs) ex farm value	23.00
<b>Outputs</b>	4,600 t cashew kernels	45.00
	250 t consumer packed roasted cashew nuts	2.50
	3,400 t CNSL cardanol/residol	1.40
	10,000 t shell cake	0.55
	400 t cashew testa	0.04
	<b>Total value of outputs</b>	<b>49.50</b>

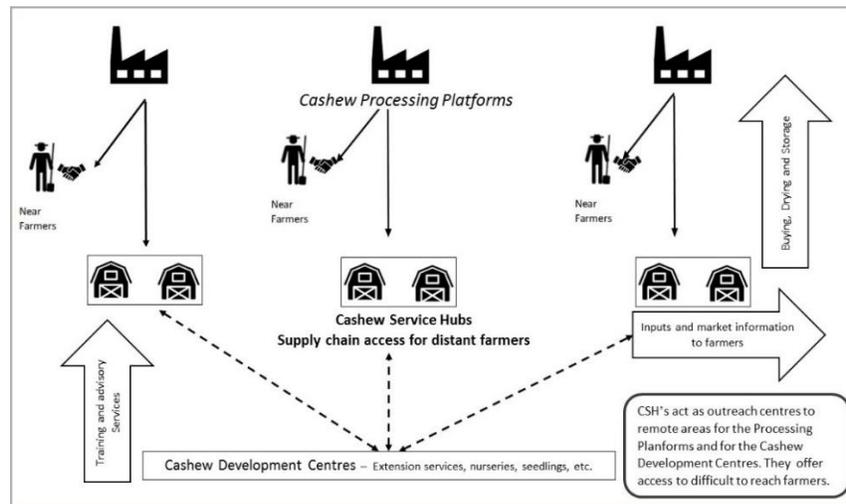
72. **Cashew service hubs.** In addition to the cashew processing platforms, the project will support the establishment of eight CSHs to be administered by CCA (2 per cashew processing platform). The CSHs will serve as outreach buying points for the CPPs as well as distribution points for farm inputs for cashew growers, as shown in Figure 7. By extending the outreach and impact of the processing platforms to more remote growing areas within their catchment area, they will strengthen supply chain linkages and serve as an important means of spreading supply risk, given that the processing platforms will be located in towns where processors face intense competition for RCNs from export traders. And by linking farmers in outlying districts to processors, the hubs will improve their exposure to better prices, training, and inputs and make the supply chain more sustainable.

<sup>42</sup> The testa is the thin red skin around the cashew kernel.



73. Each CSH will comprise a warehouse for raw materials, a drying yard, a small storage facility for inputs for distribution to farmers (jute bags, tarpaulins, approved pesticides, and fertilizer) and will be staffed by trained, knowledgeable staff. As part of the procurement and supply chains for the processing platforms, the hubs will support themselves by providing paid services on behalf of the processing platform operators, including sourcing, storing, drying, and bagging raw material at commercial rates, distributing agro inputs on behalf of importers as commission agents, and accepting fees for the testing and analysis of cashews purchased by processors or traders.

Figure 7: Cashew Service Hubs



74. Activities related to the development of the CPPs and CHSs will be implemented by CCA under the oversight of AGEDI. Site development will be contracted to private developers with experience in industrial zones through a competitive bidding process. In all sites, the project will promote adopting improved energy efficient systems, including the use of by-products as an alternative source for energy production (cashew shell).

***Subcomponent 3.2: Access to investment capital and risk management instruments (US\$85.63 million, including US\$23.68 million IBRD, and US\$61.95 million beneficiary contribution)***

75. Evidence indicates that Côte d'Ivoire experiences a shortage of financing for agro-industry in general and for the cashew value chain in particular. The project seeks to alleviate this constraint which is a handicap to developing a competitive cashew value chain. It will improve access to finance for the cashew industry by: (i) providing technical support to PFIs to build their operating capacity regarding sector knowledge and expertise; (ii) establishing a Dedicated Financial Facility (DFF) for long-term investment funding and support to micro-investments; and (iii) contributing to the GoCI newly established security deposit scheme for short-term credit facilities for RCNs destined for domestic processing.

76. **Technical Support to PFIs and advisory firms.** The project will provide TA to PFIs for the following purposes: (i) build PFI operating capacity for lending services and the development of new financial instruments to benefit agro-industry in general and the cashew industry in particular, ensuring that PFIs



work closely with the cashew sector; and (ii) support to investment cycle: this support concerns assistance to PFIs and advisory firms for the development of targeted services for cashew industry investors to increase the ‘bankability’ of their operations (preparation of sound business plans, appropriate choice of technology, support for procurement, etc.), and the subsequent preparation of loan applications.

77. **Dedicated Financing Facility.** The proposed loan will fund a project budget line (DFF), to provide a partial support to the financing of cashew operators. The DFF will target domestic cashew enterprises that need financing to upgrade/ modernize or establish processing and storage facilities. It will also serve other private sector players involved in the value chain including very small enterprises operated by women and youth. It is expected that the DFF will contribute, through a multiplier effect, to generate additional funding on the part of the PFIs, and that, in the process, beneficiaries will establish long-term banking relationships with PFIs hence ensuring sustainable funding for cashew operations after project ending. The DFF will operate through the following three distinct windows (see Table 9 below):

78. **DFF Window A – Collateral Enhancement Grants (CEGs) for cashew processing technology upgrade and new warehouses.** The DFF Window A will provide one-time CEGs for the benefit of cashew processors and warehouse owners in the amount of 50 percent of eligible sub-project cost. The CEGs will serve as security deposit for PFIs to issue corresponding loans at market conditions for 80 percent of eligible investments for a total of about US\$3.375 million regarding: (i) technology upgrading and capacity expansion of existing cashew processing plants: 10 sub-projects of average cost of about US\$300,000 each (total sub-project grants of US\$1.5 million); and (ii) construction of new warehouse facilities with individual capacity of about 2,000 tons of RCNs: 15 sub-projects of average cost of about US\$250,000 each (total sub-project grant amount of US\$1.875 million); emphasis regarding warehouses will be on encouraging the construction of structures that can provide a range of ancillary services in keeping with the needs of cashew producers and processors.

79. The grants under Window A will be approved by a Project Grant Committee (PGC) purposely established to vet the sub-project initiatives submitted by project-sponsored investors. The PGC membership will include up to six technical members from CCA (chair), MINADER, MIM, FIRCA, ARRE and PFIs. The applications will go through a two-stage process: they will first be reviewed by the PGC, and then by the PFI’s Internal Loan Committee (see details in para. 82 below.)

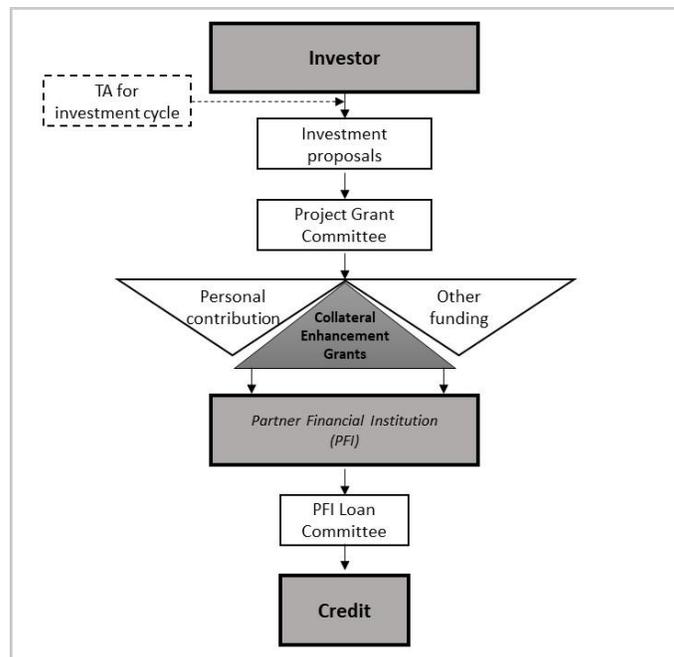
80. The approval process of investment sub-project proposals under Window A will be as follows: (i) the investor prepares his/her sub-project for submission to the PGC, with the help of the project-funded technical assistance provided to PFIs; at this stage, s/he initiates contacts with PFIs to start the sub-project financing process and submission to the PGC; (ii) PGC reviews the proposed sub-projects and decides if they are eligible for the grant; and (iii) if the application is ‘pre-approved’ by the PGC, it goes to the next stages, i.e., (a) preparation of detailed investment proposals (including attendant business plans), and (b) subsequent submission to and vetting by the PFI internal loan committee operating under the PFI own procedures. Subsequently, the PFI decides whether or not the application is eligible to receive funding using the grant as cash collateral (complementing any additional collateral the PFI may require). The decision is based on the assessment by the PFI loan committee of the prospective investor’s own financial status, and the viability and risks of his/her investment sub-project and associated business plan. At that stage, the PGC takes the final decision to release the project grant for cash collateral. Figure 8 below depicts the grant approval process.

81. The conditions for final release of the grant as deposit on the bank escrow account in the name of the beneficiary are as follows: (i) the potential investor has developed a viable business plan proposal;



(ii) the PFI has accepted to release the required funding (up to 80 percent of SP cost) predicated on the CEGs; (iii) the investor has contributed his/her own cash counterpart funding (at least 20 percent of SP cost), as well as any other collateral required by the PFI; and (iv) the investor will have to adhere to all EHS/OHS safeguard aspects whenever relevant. Once beneficiaries have paid off the loan principal and interest, they will be entitled to draw on the security deposit. In case of default, the PFI will draw on the deposit as a last resort after making all efforts to recover the unpaid part of the loan, including calling all other guarantees as needed.

**Figure 8: Funding Mechanism under the DFF Window A**



82. **DFF Window B - Matching Grants (MGs) for rehabilitation of small warehouses and establishment of V/C service provision.** This window will provide MGs to finance: (i) the rehabilitation of small warehouse facilities (of about 500 tons of capacity), including such investments as extension of premises, repairs to floors, walls, or roofs, installation of suitable lighting, improved access for trucks, secured doors, ventilation systems, drainage, weighing and drying facilities, moisture meters, calibration equipment, quality assurance and waste control systems, communication equipment, fire prevention and pest control, etc., as well as executive and technician training; and (ii) the establishment of any other eligible service facilities related to support cashew value chain operations, such as mechanization service providers, tree nurseries, or seedling suppliers. The window will finance 50 percent of the cost of 320 SPs (individual cost of US\$25,000). It will give priority to existing producer cooperatives and individual owners of cashew warehouses; it will also be available for other *bona fide* investors in the value chain.

83. Potential beneficiaries under Window B will use the MGs directly to finance their investments. Funding applications under the DFF Window B will be approved by the Local Project Grant Committees



(under the oversight of the PGC), established at the level of each of the eight cashew hubs. The promoter will have to provide the remaining 20 percent in the form of a cash contribution, secure a commercial loan from the PFI for 30 percent, and comply with any relevant EHS/OHS aspects of his/her sub-project as a condition of release of the grant.

84. **DFF Window C - Matching Grants for Micro-Projects.** This window will operate under MG procedures (similar to Window B) to contribute to the funding of micro-projects, such as small-scale mechanized equipment (sprayers, weeding equipment, tree pruning saws, and trailers, etc.) to ease some of the labor constraints. This window will be targeted preferentially on women and youth who will receive special treatment. It will provide grants up to 80 percent of the cost of about 450 Micro-Projects (MPs/individual cost of about US\$6,400). The remaining 20 percent will be provided by the beneficiary as a condition of grant release; the conditions to secure a commercial loan from the PFI will not apply for Window C. The MP proposals will be approved by the Local Project Grant Committees. PFIs will be invited to sit in these committees; but they will not be given voting power for MPs since the granting of commercial funding is not a condition for release of the MGs under the micro-projects window. However, applicants will have the obligation to open a dedicated account with a PFI. It is expected that the process will lead to developing sustained relationships between the small promoter and the PFI.

**Table 9: Sub-project investment categories and funding sources**

Window/ Investment category	Sub-Projects			Dedicated Financing Facility (US\$ '000)	Partner Financial Institution (US\$ '000)	Beneficiaries (US\$ '000)
	Investment cost (US\$)	Nb. of Sub-Projects	Total funding (US\$ '000)			
<b>Window A: Collateral Enhancement Grants (CEGs)</b>				50%	30% <sup>†</sup>	20%
Cashew processing technology upgrade	300,000	10	3,000	1,500	900	600
New warehouses (2,000 tons)	250,000	15	3,750	1,875	1,125	750
<b>Window B: Matching Grants (MGs, with commercial loans)</b>				50%	30%	20%
Rehabilitation of existing warehouses (500 tons) and support to V/C services	25,000	320	8,000	4,000	2,400	1,600
<b>Window C: Matching Grants (MGs)</b>				80%	-	20%
Farm service enterprises for women and youth	6,400	450	2,875	2,300	-	575
<b>TOTAL</b>			<b>17,625</b>	<b>9,675</b>	<b>4,425</b>	<b>3,525</b>

<sup>†</sup> DFF will be used to leverage up to 80 percent of SP cost corresponding to project-funded CEGs and the additional funding providing by the PFIs.

85. **Eligibility criteria for grant recipients and PFIs.** Eligibility criteria for grant recipients will regard *inter alia* (i) whether or not recipients have activities related to the cashew value chain and their financial status, and (ii) the characteristics of their sub-project proposals; eligible sub-projects will not belong to a negative list of activities. These criteria, as well as the specific procedures for fund management, grant disbursement and subproject monitoring, will be detailed in the PIM, to be issued as a condition of disbursement. The PIM will also define the conditions and procedures for the execution of the cash collateral in the case of CEGs. PFIs participating in the DFF will be selected based on clearly defined



eligibility criteria regarding financial performance, risk management capabilities including environmental and social safeguards, together with their specific ability to support cashew industry development. Access, modalities, and financial terms will include also features such as competitive loan terms (maturities, rates, repayment schedules, etc.) for the segments to be served.

**86. Contribution to the Security Deposit Scheme (SDS) for loans to support raw cashew nuts purchases by domestic processors.** The project will contribute US\$13.5 million to the dedicated cashew security deposit scheme approved by the Council of Ministers on December 14, 2017. This scheme aims to alleviate the financial constraint faced by domestic processors to fund their RCN stocks; acquisition of stocks represents a large expense for processors bearing in mind that the crop is collected over four months and processed all year long. It is also meant to help local banks to become more familiar with the cashew nut processing business in general as well as cashew nut processors.

**87.** The security deposit scheme was initiated by CCA in 2017 as an ‘emergency’ mechanism when RCN prices shot up and funding to acquire RCNs was insufficient. It was piloted with a financing of about CFA500 million (approximately US\$900,000) and leveraged financing for about 3,800 tons of RCNs (about US\$5 million). The total estimated need to fund the scheme amounts to about CFA12 billion (or roughly US\$20 million) for the processing of about 60,000 tons of RCNs. In future years, the need is expected to increase in proportion to the increased volume of RCNs being processed.

**88. Financial market context.** Currently, cashew nuts processors obtain working capital loans from banks by pledging the raw nuts and other assets. Their loans are short-term (under 12 months), at a lending rate between 10-12 percent reflecting national financial market conditions. There is a wide gap between the large established processors (such as OLAM) and other domestic processors in terms of their ability to finance purchases of RCNs. As the demand for RCN is expected to grow and the lenders will be exposed to price fluctuations of the collateralized RCNs, the SDS plays an important role to facilitate much needed external funding for the processors and the project’s contribution would strengthen the SDS in response to the growing demand.

**89. Description.** The project funds will be deposited on escrow accounts in favor of PFIs as security deposit to guarantee up to 25 percent of the corresponding loans issued by eligible PFIs. The PFIs appraise and provide loans with market interest rates to the processors through normal lending processes. As such, the terms and conditions of the loans will be set by the PFIs based on their appraisals. The escrow accounts are not remunerated since they are considered current accounts. In terms of seniority of the claims upon default, the security deposit is accessed as a last resort only when other pledged assets do not meet the obligations. Once the processors repay their loans, the security deposit will be used to guarantee other loans for eligible processors up to three years. Potential beneficiaries will make their request for security deposit to CCA. Once the funding is approved, the PFI, the processor and CCA sign a tripartite agreement for the establishment of the security deposit and subsequent releases of the funding. The details of the operation of the SDS will be defined in a specific operational manual whose elaboration will be a condition of disbursement to SDS. As the scheme is still at the nascent stage, the project will provide necessary technical assistance and introduce best practices of public guarantee schemes. FIRCA will have overall fiduciary responsibility for the proposed SDS.

**90. Eligibility criteria.** Processors who submit themselves to an independent technical and financial audit through CCA may become eligible to benefit from the SDS. The audit also serves to estimate their financial needs. Thus far, about 16 processors have secured eligibility to the scheme. The PFIs will be selected based on clearly defined eligibility criteria regarding financial performance, risk management



capabilities including environmental and social safeguards, together with their specific ability to support cashew industry development. The project will provide technical assistance to the PFIs as required.

***Subcomponent 3.3: Market development and trade (US\$4.46 million)***

91. A sustainable outlet for RCNs and kernels is a prerequisite for realizing the growth potential in production and processing. For that reason, Subcomponent 3.3 aims at an effective development of domestic, regional, and international markets for Ivorian cashew products, particularly kernels. This aim will be achieved by addressing the huge gap in knowledge and understanding of the cashew market by: (i) building a comprehensive market investigation platform as a foundation for a market intelligence system, informed policy advice, and investment promotion; (ii) upgrading market knowledge and educational tools for all actors along the value chain; and (iii) ensuring the use of high food safety standards at the processing level. To this end, the project will finance the activities outlined next.

92. *Establish a market investigation platform* by financing a comprehensive study of opportunities for marketing Ivorian cashew products (and byproducts) locally and internationally. The study will include a detailed analysis of domestic and international marketing channels and a projection of the most viable options for marketing cashew products, along with the associated standards, quality requirements, and quality controls that must be introduced to sell processed products on local and international markets. The study will have four major components. First, it will comprise a strategic market and competitor analysis of the global market for cashew kernels (Vietnam, India, Brazil, Mozambique, Tanzania, Ghana, and Guinea Bissau), with demand projections, a review of price trends, and the identification of opportunities in export markets for Ivorian processors. Second, it will look at access to European, United States, Indian, and Middle Eastern markets, including a review of legislative requirements as well as the quality, technical, and phytosanitary standards for cashew kernels and an analysis of buyer requirements and methods. Third, it will examine market entry strategies, including channels, segments, marketing of whole and broken kernels for large processors, niche market processors (organic, fair trade, certified, and social impact driven ventures), and opportunities for secondary processing of value-added products, and innovative products (cashew nut oil, cashew milk, cashew alcohol, etc.). Fourth, it will include a global telephone and email survey of cashew kernel buyers in European, North American, Middle Eastern, and selected Pacific markets, with a target response of 50 respondents. The survey will gather information on their perceptions and experience of cashews in Côte d'Ivoire, buying requirements, and current suppliers.

93. *Prepare a Cashew Kernel Exporters Handbook*. Utilizing the information from the market investigation platform, the project will prepare a handbook for processors, investors, bankers, and officials in an easy to access format. The handbook will to serve as a day-to-day “hands on” reference guide in hard copy. It will include practical tools such as a list of global buyers, information on quality standards, and lists of quality control surveyors, certification bodies, shipping lines, and warehouses.

94. *Prepare a marketing plan for (and linkages to) buyers of cashew byproducts*. This activity, almost completely neglected in Côte d'Ivoire to date, requires specific attention. Based on current crop projections, domestic processing of 50 percent of RCNs will create around 500,000 tons of cashew byproducts every year. Using byproducts such as the shell and testa, particularly within the cashew processing platforms, is a key factor in controlling the costs and promoting the sustainability of cashew processing. It will directly benefit processors and investors, and it will reduce the environmental impact of cashew processing. Preparation of the marketing plan will focus on: (i) cashew processing byproducts



and their uses; (ii) price trends for cashew byproducts; (iii) engagement of international buyers and their buying requirements, including specifications; (iv) identification of potential domestic buyers of byproducts—for example, for generating electricity and for high-temperature manufacturing applications (such as fire bricks, chemical processes, and paint); (v) development of a marketing strategy for byproducts; and (vi) development of specific operational linkages to identified buyers.

95. *Prepare a market profile and a marketing roadmap for the domestic market.* Access to the domestic market has been a key factor for successful cashew value-chain development in India, China, and Vietnam. Little is known about cashew consumption patterns or potential in Côte d’Ivoire, however. A professional consumer-based survey is therefore envisaged, which will be the basis for preparing a market profile and marketing roadmap for the domestic market. The survey will be conducted by a specialized market analysis firm and cover consumption patterns for nuts and snacks, barriers to market development, myths and beliefs related to cashew consumption, and a retail survey of which types of nuts are available, where, and at what price. Based on the survey results, a corresponding marketing strategy will be formulated for various market channels and segments, such as food facilities, hospitality services, and so on. Domestic marketing of processed cashews will support small processors and investors who may not have sufficient export volumes or see their role as adding high levels of value in consumer products. The marketing roadmap for the domestic market will include a campaign targeting hotels and tourist centers and a campaign in specialized newspapers and business magazines to promote development in the subsector among investors and businesses.

96. *Conduct a training program to create a core group of experts in the cashew market.* The project will finance a series of training events targeting managers of cashew processing enterprises, investors, financial institutions, business support organizations, RCN exporters, government agencies, banks, insurers, and logistics companies. These training events will provide a strategic overview of the world cashew market (including demand and supply) and market intelligence in the cashew subsector (sources and methods, cashew export marketing, and so on) to create a core knowledge group and a framework for making informed decisions for investment, regulation, and development. The involvement of financial institutions in this activity could catalyze better access to working capital for processors.

97. *Conduct a program to build export marketing capacity.* The project will finance a program to address the lack of capacity in export marketing in the cashew subsector and bring exporters and processors to the international cashew market in a sustainable way. This program, which will be based on successful programs in African countries for such products such as oilseeds and natural ingredients, will ultimately lead to export contracts for Ivorian cashew processors and long-term partnerships and alliances. The format for the program will be a series of workshops and individual coaching for exporters and potential exporters over a two-year period. By the end of the program, each exporter will have done business with a buyer in North America, Europe, or the Middle East. Exporters who complete the program will be eligible to participate in the branding program (*Cajou Ivoire*; see the discussion that follows). Companies participating in the training program will learn to develop an export marketing strategy and action plan, conduct market research (market intelligence basics and systems, market access, market entry, and market exposure), visit buyers to gain an understanding of the business, develop customer identification and selection systems, and learn about market expansion (sustaining the marketing function). A number of candidates can collaborate on this training program, ranging from CBI (Centre for the Promotion of Imports) from selected consumer countries to ComCashew.



98. *Introduce and promote the application of quality control and food safety principles in processing and marketing cashew nuts*, including GMPs, GHPs, and food safety management systems such as HACCP, through technical training in good production and processing practices and certification of processing plants. On a cost-sharing basis (60 percent by the private sector and 40 percent by the project), the project will support domestic cashew processors (new and existing) to adopt a minimum HACCP quality management system with the longer-term target that all factories will gain British Retail Consortium (BRC),<sup>43</sup> International Food Standards (IFS), or similar certification (which may imply a need to support the establishment of local quality control centers). Certification is a key buyer requirement and will help Côte d'Ivoire to achieve a competitive advantage over much of the cashew subsector in Vietnam and India. This activity will be implemented in partnership with CITA and providers of HACCP implementation services.

99. *Support CCA to establish an Ivorian brand of cashew kernel: Cajou Ivoire*. Action is needed to address buyers' perception that Côte d'Ivoire is not a good source of quality cashew kernels (a perception common among buyers of cashews from all African origins). Branding products from qualifying processors as *Cajou Ivoire* would make it possible to promote Ivorian cashew as a quality product more generally and encourage the perception that Ivorian cashew processors are reputable, reliable "second suppliers"<sup>44</sup>. The project will finance activities to design, launch, and globally promote this brand over a two-year period. Key activities will focus on the reliability of suppliers (particularly in relation to contractual performance), on how "second supplier" status can reduce risky overdependence on Vietnam among buyers, on high food safety standards, on the fact that processors must earn the right to use the brand name, as well as on shared innovation, product taste and freshness, positive social impact, good labor practices, and protection against climate change for small-scale farmers. This activity will also include brand promotion activities such as participation in international trade fairs, promotions to purchasing decision makers at specialist trade fairs,<sup>45</sup> and brand building and advertising in trade publications such as Cashew Week, Agra Europe publications, Snacks Magazine, and the African Cashew Alliance publications.

100. *Establish an information system to provide good market intelligence on raw cashews, kernels, and byproducts in an appropriately targeted way to the spectrum of cashew value-chain stakeholders*. Good market intelligence on cashew is very difficult to find. Most information is poorly researched and often biased. This problem is widely recognized. Market information must be timely, accurate, consistent, and appropriate for the targeted audience. Transmitting this information will involve the collection of price data at the farm, factory, and warehouse gate, at ports and major trading places (such as India), setting up a price information service accessible to all via telephone and internet, and the continuous analysis and publishing of market intelligence. The project will finance a Market Intelligence Unit to be located at CCA and deliver critical market information. Table 10 below indicates the kinds of information to be provided). The MIS/GIS and market platform proposed previously will provide as the baseline data for the market information. Output of the Market Intelligence Unit will include weekly and monthly market reports covering prices, trade, and trends in the cashew market.

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<sup>43</sup> The BRC is a framework to manage product safety, integrity, legality, quality, and the operational controls for these criteria, in the food and food ingredient manufacturing, processing, and packing industries.

<sup>44</sup> A "second supplier" does not seek a large share of the customer's business but seeks to offer an alternative to the dominant supplier. This approach has been used effectively in cashew in the past to overcome buyers' reluctance to buy from a new factory or in this case origin.

<sup>45</sup> Among others: African Cashew Alliance Conference, World Cashew Convention, US Peanut and Tree Nut Processors Association Convention, Golden Cashew (Vietnam), and the European Snack Association.

**Table 10 : Critical market information to consider for the Ivorian cashew industry**

Information type	Information detail	Frequency	Dissemination
<b>GIS system production and crop</b>	Crop location and quality by region	Every 2 years	Published report and one-day conference
<b>GIS system crop forecast</b>	Crop forecast: monthly estimates from November until July	Monthly in season, with annual summary	Website and press release
<b>Local RCN pricing</b>	Weekly information by region on farm-gate, processor, and local trader prices, with full explanation of prices and reasons for price differentials or changes	Weekly during the season (Feb-July)	Radio bulletin at the same time every week combined with educational content
<b>Export RCN FOB prices and markets</b>	RCN prices at ports and destinations on CFA basis (possible collaboration with Cashew Week)	Weekly during the season (Jan-August)	Bulletin on website and email report to subscribers
<b>Cashew kernel prices and markets</b>	FOB prices with comparison between Côte d'Ivoire and other origins (possible collaboration with Cashew Week)	Weekly throughout the year; monthly analysis and summary	Bulletin on website and email report to subscribers

101. **Summary costs for Component 3.** Table 11 summarizes the costs and financing plan for the activities to be undertaken in Component 3.

**Table 11: Project costs for Component 3—Support to Private Investment in Post-harvest and Processing Infrastructure**

Subcomponent	Cost (US\$ millions)		
	Total	IBRD	Beneficiaries
3.1 Cashew post-harvest and processing infrastructure development	106.16	82.86	23.30
3.2 Access to investment capital and risk management instruments	85.63	23.68	61.95
3.3 Support for market development and trade	4.46	4.46	0.00
<b>Total</b>	<b>196.25</b>	<b>111.00</b>	<b>85.25</b>

**COMPONENT 4: PROGRAM COORDINATION, MONITORING, AND KNOWLEDGE MANAGEMENT (US\$16.74 MILION)**

102. Component 4 will facilitate: (i) administrative, technical, and financial management of the program; (ii) coordination among all institutional partners to ensure an efficient flow of information and support to all value-chain actors, particularly the small cashew growers and the processing industry; (iii) effective contractual arrangements with key implementing partners (CCA, CNRA, and others) and other private sector operators; (iv) monitoring and evaluation of the financial, environmental, and social impact and overall performance of the project; and (v) development of communication activities to publicize and disseminate project results, best practices, and success stories.

103. *Project coordination, management, and M&E.* Subcomponent 4.1 will finance the following: (i) *Staffing, equipment, and operating costs of the Project Coordination Unit.* The PCU will be headed by the CCA Director (project coordinator) and a team hired on a competitive basis and composed of two technical and operations managers, a financial management specialist, an internal auditor, a procurement



specialist, a gender and social inclusion specialist, an environment specialist, an M&E specialist, and administrative support staff. The PCU will benefit from the support of a technical team of focal points appointed in concerned ministries (MINADER and MIM). The team's role will be to facilitate project implementation through the systematic review of periodic reports and briefing notes to the PMP and PSC, facilitate reviews of programming and implementation documents, and speed decision making. The government will allocate counterpart funds for the proper functioning of the technical team; (ii) *Project planning and internal M&E*. The project will cover consultant fees, studies, workshops, and operating costs for the preparation, with the PIAs and relevant stakeholders, of the annual work program and budget and periodic implementation status reports, completion of technical and financial audits, as well as a project impact evaluation study; (iii) *Environmental and social safeguards management*. The project will support implementation and follow-up of environmental and social safeguard instruments, notably the preparation of Environmental and Social Impact Assessments (ESIAs) and RAPs as well as follow-up and supervision of their implementation; and (iv) Preparation and implementation of a communication plan, including a Grievance Redress Mechanism for the project.

104. *Knowledge management*. The project will package and disseminate information to respective value-chain actors through various media and formats (brochures, videos, articles, newsletters, TV, and radio), using a central knowledge management and communication platform to be established within CCA and relevant ministries. As described previously, the project will develop a web-based portal to disseminate cashew market information, training and extension materials, and other information. This knowledge sharing will be supported by workshops and learning events. In addition, the project will encourage South–South exchanges (for instance, with Vietnam, Tanzania, Brazil) on cashew R&D, including learning and knowledge exchange programs on production techniques, processing technology, and other topics. This effort will build on cooperation underway between CCA and Ho Chi Minh University.

## G. Gender and Youth Strategy in the Cashew Value Chain: Opportunities for Decent Rural Employment

105. *Context*. Ivorian agriculture provides employment and income for two-thirds of all households, yet productive employment and decent work for rural workers, especially women and young people, are constrained for numerous reasons, including limited access to land, markets, technology, finance, training, and education. Given the importance of cashew production and its potential to generate and improve employment in rural areas (especially in the North), the project recognizes the importance of developing competencies and skills relevant for the employment of women and youth throughout the cashew value chain—both in the short and long term, and not only to improve cashew productivity and competitiveness but to provide decent work opportunities.<sup>46</sup>

106. *Skill development strategy for women and youth in the cashew value chain*. The project will develop a comprehensive employment strategy and plan to help women and youth to become skilled workers, producers, and entrepreneurs in the cashew subsector. This strategy will emphasize the new opportunities for women and youth in the cashew value chain arising from three key strategic actions: (i) the development skills that improve employability in cashew processing, packaging, and marketing; (ii) support for the development of new value-added SMEs in the cashew subsector, through a cashew business incubator situated at the processing platforms; and (iii) promotion of a Decent Work Agenda focusing on workers' rights and safe working conditions, and the design of a Gender Equality at Work Plan.

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<sup>46</sup> Goal 8 of the 2030 Agenda for Sustainable Development refers specifically to decent work: "Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all."



107. *Longer-term skill development strategy.* The project will aim to expand vocational-technical training and formal apprenticeship systems in cashew processing as a means of developing specialized staff as well as generating a well-trained and disciplined workforce. In collaboration with CITA, the project will establish a program to improve the employability of youth and women by equipping them with the skills and competencies to fill the new jobs that will be created by the processing platforms in Bouaké, Korhogo, Bondoukou and Séguéla. This demand-led, sectoral approach to skill development is central to addressing workforce needs in the cashew industry. It will engage employers in developing the skills they require in local workers through formal learning. The program, training facilities, training personnel, and skill certification will be accredited by CCA and the inter-professional body. The vocational-technical program will last three to six months, depending on the curriculum, and focus on cashew technology and technical skills. Students who complete the program successfully (through cumulative assessment and testing) will receive a certificate and be employed for four months in a supervised, formal apprenticeship system providing on-the-job training. The cashew industry and CITA will work closely throughout the duration of the vocational-technical program and implementation of the apprenticeship system.

108. Focusing on developing the skills needed in the cashew value chain will encourage and sustain PPPs for this training, help to assure the quality of workplace learning, and contribute to the quality of employment. The formal apprenticeship system will design and establish a PPP and cost-sharing mechanism for the skill development program based on a written employment contract with compensatory payment (for the duration of the apprenticeship) and standard social protection coverage (as defined by the strategy's Decent Work Agenda). The higher likelihood of post-training employment will make the skill development program attractive to women and young people.

109. *Business incubators.* The project will provide specialized and sustainable business services and opportunities in the cashew value chain to women and young entrepreneurs by facilitating business incubators to be established as part of the cashew processing platforms and also within CITA. These incubators will operate under a PPP model focusing primarily on youth and women. The incubators will offer a package of training and services in entrepreneurship education to enable the startup, development, and improvement of local businesses. The package will offer, for example, access to facilities, training in business and entrepreneurial skills, management and financial services, information and communication technology, market information, and businesses linkages and networking. Aside from supporting processing activities, the incubators will support businesses that provide services to farmers such as small mechanized equipment (custom hire services) for maintaining trees, harvesting, drying, and other operations. The project is expected to support some 200 youth enterprises.

110. *Decent Work Agenda.* The project aims for employment opportunities created under the project to be decent, equal, and deliver a fair income at a secure workplace with social protection and social dialogue for all workers (and especially women). More specifically, it will emphasize *rights at work and safe working conditions*, ensuring equality of opportunity and treatment in employment and occupation for all to reinforce a non-discrimination policy based on gender criteria (such as wage disparities between men and women) and age (for example, no child labor or discrimination in remunerating young workers). The project will safeguard income security by applying the national minimum wage policy for all employees and promote safe and healthy working conditions through training in safety, health, and technical equipment, as well as promoting workplace health and well-being. The project will integrate gender differences in the development of occupational safety and health policies and prevention strategies. The *Gender Equality at Work Plan* will address specific needs of rural female workers and enable them to participate on equal terms with men through skill training, education, and opportunities



for wage employment and self-employment. As part of its *Decent Work Agenda*, the project will ensure adequate care for children and infants in the cashew processing platforms, recognizing that childcare is an issue of equal concern to men and women workers and closely linked to productivity.

111. *Monitoring and evaluation.* The project's M&E system will include indicators on women and youth participation in each of its three technical components. Progress will be monitored regularly so that when results fall short of expectations, special evaluations will be conducted to analyze constraints and identify corrective action. The expected results of the gender and youth strategy include inclusive growth by improving workforce skills among women and youth and their subsequent force participation in the cashew processing workforce; creating decent and equal rural employment opportunities for women and youth in impoverished northern Côte d'Ivoire, thus improving their productivity and earning power; and promoting decent and safe working conditions in cashew processing by improving job security and stability as well as occupational safety and health, and also by ensuring that all employees are paid the national minimum monthly wage.



## ANNEX 2: IMPLEMENTATION ARRANGEMENTS

### COUNTRY: Côte d'Ivoire Cashew Value-Chain Competitiveness Project

#### A. Project Institutional and Implementation Arrangements

1. The institutional setup for the project is organized around the following functions: (i) an oversight and orientation function by a PSC; (ii) overall coordination of project activities and partners by CCA, through a Project Implementation Unit (PCU); (iii) management of the Designated Account (DA) and fiduciary management entrusted to FIRCA; and (iv) technical support and execution of project activities vested with strategic government entities – PIAs.

2. **A Project Steering Committee** will be established to provide policy guidance and oversight and ensure proper coordination of the project, as it involves numerous actors in the cashew value chain. The main functions and responsibilities of the PSC are fourfold: (i) advise the project on strategic directions and supporting activities; (ii) approve the Annual Work Plan and Budget (AWPB); (iii) ensure effective collaboration and cooperation between all key stakeholders; and (iv) review the PCU's Implementation Progress Reports (IPRs), advise on the effectiveness of ongoing activities, and advise on any adjustments needed in the Annual Work Plan. The PSC will be chaired by CCA's Board President. It will comprise officials from central and sector ministries (including Prime Minister Office, MINAGRIE, MIM, MEF, and Ministry of Trade), entities involved in implementing the project, in addition to representatives of the private sector, the professional association of Banks and financial institutions, the producer organizations, and civil society, to contribute to good governance and enable these stakeholders to voice their concerns as needed.

3. **A self-standing Project Coordinating Unit**, with support of dedicated personnel and a number of PIAs, will be in charge of planning and budgeting project activities and executing the approved AWPB. It will also be in charge of subproject agreements and MoUs, technical supervision and quality control, gender and social inclusion, environmental and social safeguards (particularly resettlement), and M&E.

4. The PCU will be headed by the Director General of CCA, who will act as overall project coordinator. S/he will be responsible for the overall technical coordination of the project in line with the AWPB. S/he will sign performance-based MoUs, conventions, or contracts on behalf of CCA, *inter alia* with FIRCA and PIAs for activities that fall under their mandates, including fiduciary management with FIRCA, rehabilitation of feeder roads with AGEROUTE, agricultural research activities with specialized national institutions and academia, and extension activities with ANADER. The PCU will also contract private service providers for cross-cutting activities such as investment promotion, training, and institutional development of inter-professional bodies and cooperatives, among others.

5. The project coordinator will be assisted with day-to-day project operations by two technical operations managers to be recruited (one for on-farm production and the other for industrial processing). S/he will also be assisted by other key staff, including: (i) two permanent safeguards specialists (1 environmentalist and 1 social and gender specialist). The environmental safeguards specialists will have additional experience in EHS/OHS, and the social safeguards specialist in GBV, social inclusion and any labor influx related risk. These specialist will oversee project safeguard awareness and accountability; (ii) an M&E specialist; (iii) an internal auditor; (iv) an accountant; (iii) a rural infrastructure



specialist; and (iv) administrative support staff. FIRCA will have the same safeguards staffing arrangement like the PCU; (iii) All the project implementing agencies (PIAs), that will operate the post-harvesting infrastructures and the processing platforms, shall establish and maintain proportionate environmental and social management systems (ESMS), including the relevant WBG EHS guidelines.

6. To ensure rapid project startup and avoid delays while the PCU is being set up, the PCU established under WAAPP— within FIRCA—will initially have overall responsibility for managing and coordinating project activities, including procurement and financial management (daily management of the DA). Thereafter, the project PCU will take over all functions except for the fiduciary function, which is to remain with FIRCA. FIRCA will be strengthened with the recruitment of an additional financial management specialist and a procurement specialist.

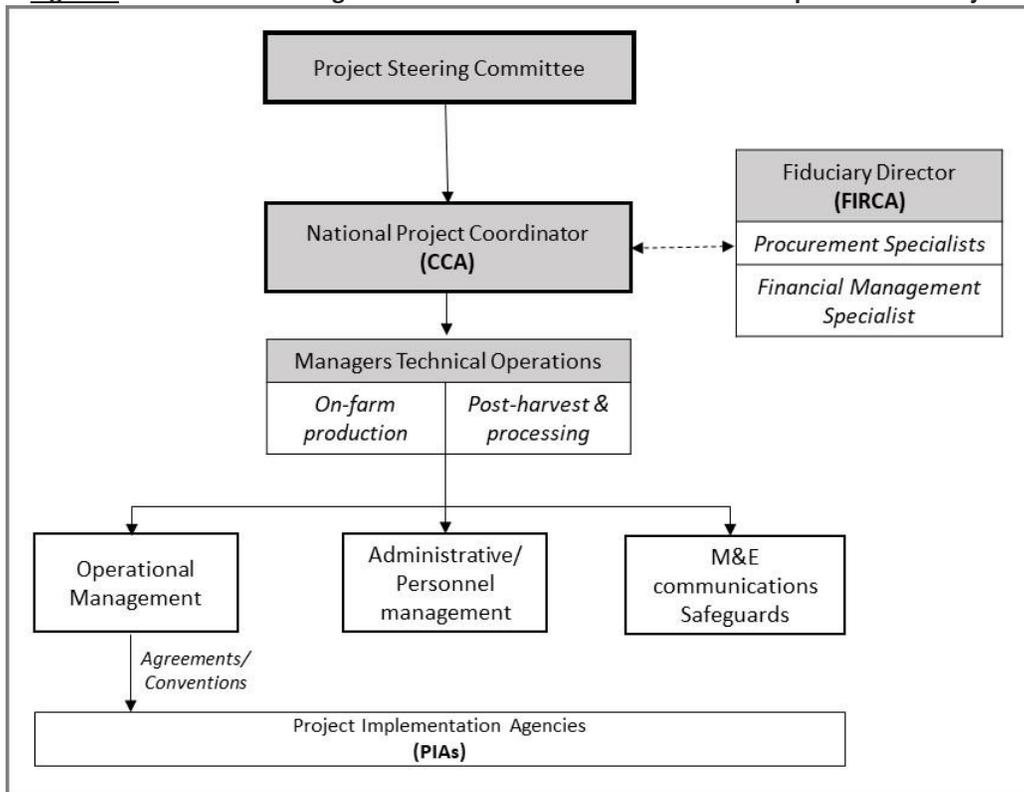
7. **Project Implementation Agencies.** The bulk of technical project activities will be outsourced to PIAs. For that purpose, the PCU and FIRCA, will sign Project Agreements/Conventions with relevant national entities, including: (i) ANADER and FIRCA for activities related to improvement of cashew productivity, agricultural extension and GAP training; (ii) CNRA and national research institutions for national cashew research activities; (iii) AGEROUTE for rural road rehabilitation; (iv) DOPA (within MINADER), for the institutional development for the cashew unions/cooperatives and apex inter-professional body; and (v) BNETD and AGEDI for the preparation of technical studies, as well as oversight and promotion of the cashew processing platforms. The above institutions are all well-established government entities which have financial and administrative autonomy. They receive a core budget from the Treasury, but have also the ability to enter into agreements with external entities to implement activities related to their primary mandate. They have good track records, including with Bank-funded projects.

8. The project Agreements/Conventions will be performance-based agreements. They will focus on measurable outcomes and outputs (as per the Results Framework) and identify the necessary means to be mobilized to attain the results. Project funds against these MOUs/ conventions will be disbursed in tranches linked to the attainment of the results; they will be integral part of the Interim Financing Report (IFR) cycle. The project Agreements/Conventions, will cover all specific activities to be implemented by the PIAs, the expected results to be achieved by project-end, the provisional costs, and a time-bound implementation plan. Prior to engaging into any agreements, the PCU will verify whether PIAs have the required capacity - technical, fiduciary and otherwise - to implement project activities. All ongoing activities agreed with the PIAs, as well as corresponding results and budget, will be reviewed each year and incorporated into the project annual work planning and budgeting process; they will be subject to approval by the PSC. The Agreements/Conventions should be signed no later than three months following loan effectiveness.

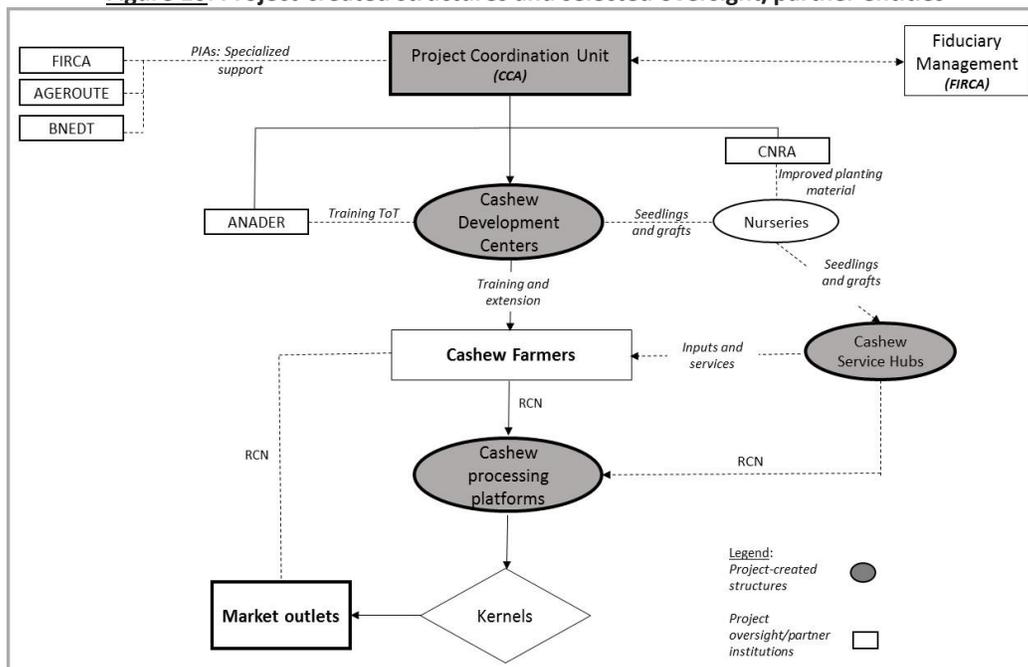
9. The PIM will detail all project coordination, management, implementation, environmental and social safeguards, M&E, and reporting functions. It will be prepared under the guidance of FIRCA and finalized by project effectiveness. Figures 9 and 10 below describe the project institutional arrangements, project-created structures, and oversight/partner institutions.



**Figure 9: Institutional arrangements for the Cashew Value-Chain Competitiveness Project**



**Figure 10: Project-created structures and selected oversight/partner entities**





## B. Financial Management

10. The FM assessment of FIRCA, the implementing unit of WAAPP that has been selected to manage the fiduciary aspects of the proposed project, was carried out in December 2016 during Project preparation and in May 2017. The objective of the assessment was to determine whether FIRCA has acceptable FM arrangements in place to ensure that project funds will be used only for the intended purposes, with due attention to considerations of economy and efficiency. The assessment complied with the Financial Management Manual for World Bank investment project financing operations, effective December 11, 2014.

11. Arrangements are acceptable if they are capable of accurately recording all transactions and balances, supporting the preparation of regular and reliable financial statements, safeguarding the project's assets, and are subject to auditing arrangements acceptable to the World Bank. These arrangements should be in place when the new project implementation starts and be maintained as such during project implementation. The assessment concluded that FM arrangements of FIRCA satisfy the World Bank's minimum requirements under Bank Policy and Directives – IPF; which describes the overall Bank FM policies and procedures and are therefore adequate to provide, with reasonable assurance, accurate and timely FM information on the status of the project required by the World Bank.

12. The overall FM risk rating is assessed as Substantial (Table 12) and mitigation measures have been proposed (Table 13) to strengthen the internal control environment and maintain the continuous timeliness and reliability of information produced by FIRCA and an adequate segregation of duties.

**Table 12: Updated financial management risk rating of FIRCA**

Type of risk	Residual risk rating		Brief explanation of changes and any new mitigation measures
	Previous	FMAR	
<b>Inherent risk</b>			
Country level	H	H	
Entity level	S	S	
Program level	S	S	
<b>Overall inherent risk</b>	<b>S</b>	<b>S</b>	
<b>Control risk</b>			
Budgeting	S	S	Detailed AWPB will be prepared and submitted to IBRD by December 15 every year.
Accounting	M	M	
Internal controls	S	S	The impact of the signing of the protocol between the IGF and FIRCA as well as the creation of the Internal Audit Committee will be assessed during project implementation.
Funds flow	S	S	Nature of some activities, mainly of Components 1 and 2, is prone to irregularities. Internal audit function, oversight mechanisms are enhanced and SMART supervision mission approach.
Financial reporting	M	M	
Auditing	S	M	Appropriate external audit arrangements will be put in place.
<b>Overall control risk</b>	<b>S</b>	<b>S</b>	
<b>Overall FM risk</b>	<b>S</b>	<b>S</b>	

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



**Table 13: Financial management implementation support plan**

FM activity	Frequency
<b>Desk reviews</b>	
IFR review	Quarterly
Audit report review of the program	Annually
Review of other relevant information such as interim internal control systems reports	Continuous, as they become available
<b>On-site visits</b>	
Review of overall operation of the FM system (Implementation Support Mission)	Semester basis for Substantial risk
Monitoring of actions taken on issues highlighted in audit reports, auditors' Management Letters, internal audits, and other reports	As needed
Transaction reviews	As needed
<b>Capacity-building support</b>	
FM training sessions	As needed

13. **Internal control system.** The current FM Procedures Manual defines control activities. It will be updated to reflect any additional arrangement or aspects required for the purpose of this new project. The internal audit function is also in place to carry out ex post reviews and to evaluate the performance of the overall internal control system. Due to the increased activities as well as some weaknesses identified during the implementation of WAAPP, the overall oversight mechanism and internal audit function of FIRCA will be strengthened. The current internal audit chapter will be updated and an Audit Committee, composed of all representative members of FIRCA, will be created. In addition, in line with the new Decree No. 475 governing the modalities of donors-financed project implementation in Côte d'Ivoire, the Directorate of Inspection of MEF (Inspection Générale des Finances (IGF), the government institution for internal financial control) will oversee the internal audit function of the project. To address the weaknesses identified during the implementation of WAAPP, the composition, mandate, and frequency of meetings of the PSC will be strengthened to ensure adequate oversight of the project.

14. **Planning and budgeting.** FIRCA will prepare a consolidated AWPB for implementing project activities. The AWPB will be submitted to the PSC for approval and thereafter to IBRD for no-objection, not later than December 15 of the year preceding the year the work plan should be implemented.

15. **Accounting.** The prevailing accounting policies and procedures in line with accounting standards for West African Francophone countries (SYSCOHADA) in use in Côte d'Ivoire for ongoing World Bank-financed operations will apply. The accounting systems and policies and financial procedures used by the project will be documented in the project's administrative, accounting, and financial manual. FIRCA will customize the accounting software to meet project requirements.

16. **Interim financial reporting.** The unaudited IFRs will be prepared every quarter and submitted to the World Bank regularly (for example, 45 days after the end of each quarter) and on time. The frequency of IFR preparation as well as the format and content of the report will remain unchanged. The consolidated quarterly IFR for the project includes the following financial statements: (a) Statement of Sources of Funds and Project Revenues and Uses of funds; (b) Statement of Expenditures (SOE) classified by project component and/or disbursement category (with additional information on expenditure types



and implementing agencies as appropriate), showing comparisons with budgets for the reporting quarter, the year, and cumulatively for the project life; (c) cash forecast; (d) explanatory notes; and (e) Designated Account (DA) activity statements. Table 14 presents the FM action plan for the project.

**Table 14: Financial management action plan**

Action	Responsible party	Deadline and conditionality
1. Submit to the Bank any evidence to support the Waiver granted by MEF, not to apply to this project the provisions of Decree No 2015-475 dated July 1 <sup>st</sup> , 2015 that require the appointment of two civil servants (e.g., one Financial Controller from the Ministry of Budget and one Public Accountant from MEF)	Ministry of Economy and Finance (MEF) and FIRCA	By effectiveness
2. Prepare a Project Implementation Manual and update the fiduciary procedures of the existing manual of FIRCA to reflect any specific arrangements and aspects related to the new project (Cashew Value-Chain Competitiveness Project—P158810)	FIRCA	By effectiveness
3. Recruit a dedicated accountant with qualifications and experience satisfactory to the World Bank	FIRCA	Two months after effectiveness
4. Signing of the protocol between the Directorate of Inspection of MEF (Inspection General des Finances, IGF) and FIRCA which allows the government institution of internal control (IGF) to include this project in the scope of its work	MEF/IGF and FIRCA	Two months after effectiveness
5. Strengthen the capacity and performance of the oversight function of FIRCA through the revision of “the internal audit chapter” and the creation of an effective Audit Committee	FIRCA	Six months after effectiveness
6. Recruit an external auditor	FIRCA	Six months after effectiveness

17. **Annual financial reporting.** In compliance with International Accounting Standards and IBRD requirements, FIRCA will produce annual financial statements. These include (a) a Balance Sheet that shows assets and liabilities; (b) a Statement of Sources and Uses of Funds showing all the sources of project funds and expenditures analyzed by project component and/or category; (c) a DA Activity Statement; (d) a Summary of Withdrawals using SOEs, listing individual Withdrawal Applications by reference number, date, and amount; and (e) notes related to significant accounting policies and accounting standards adopted by management and underlying the preparation of financial statements.

18. **Auditing.** FIRCA will submit audited project financial statements satisfactory to the World Bank every year within six months after closure of the fiscal year (Table 15). The audit will be conducted by an independent auditor with qualifications and experience acceptable to the World Bank. A single opinion on the audited project financial statements in compliance with the International Federation of Accountants will be required. In addition, a Management Letter will be required. The Management Letter will contain auditor observations and comments and recommendations for improvements in accounting records, systems, controls, and compliance with financial covenants in the Loan Agreement. The report will also include specific controls such as compliance with procurement procedures and financial reporting requirements and consistency between financial statements and management reports as well as findings of field visits (for example, physical controls). The audit report will thus refer to any incidence of noncompliance and ineligible expenditures and mis-procurement identified during the audit mission. The



project will comply with the World Bank disclosure policy of audit reports and place the information provided on the official website within two months of the report being accepted as final by the team and the World Bank.

**Table 15: Due dates of the Audit Report**

Audit Report	Due date	Responsible party
Audited financial statements including audit report and Management Letter	<p><b>a.</b> Not later than June 30 (2000 + N) if effectiveness has occurred before June 30 (2000 + N-1).</p> <p><b>b.</b> Not later than June 30 (2,000 + N+1) if effectiveness has occurred after June 30, (2000 + N-1)</p>	MEF/FIRCA

19. **Upon credit effectiveness, transaction-based disbursements will be used.** The project will finance 100 percent of eligible expenditures inclusive of taxes. A Designed Account (DA) will be opened at the Central Bank (BCEAO)<sup>47</sup> and a Project Account in a commercial bank under terms and conditions acceptable to IBRD. The ceiling of the DA will be variable and should be based on forecasted project expenditures expected to be paid from the DA during Year 1. Subsequent disbursements will be made against submission of SOE reporting on the use of the initial/previous advance. The option to disburse against submission of quarterly unaudited IFRs (also known as report-based disbursements) could be considered, as soon as the project meets the criteria. Other methods of disbursing the funds (reimbursement, direct payment, and special commitment) will also be available to the project. The minimum value of application size for these methods is 20 percent of the Designated account ceiling. The project will sign and submit Withdrawal Applications electronically using the eSignatures module accessible from the World Bank’s Client Connection website. In addition, the Project can make use of retroactive financing for eligible expenditures in an amount not to exceed thirty-nine million US\$ (US\$39 million) in accordance with the Loan Agreement.

20. **Local taxes.** Funds will be disbursed in accordance with project categories of expenditures and components, as shown in the Loan Agreement. Financing of each category of expenditure/component will be authorized as indicated in the Loan Agreement and will be inclusive of taxes per the current approved country financing parameters for Côte d’Ivoire.

21. **Support to the implementation plan.** FM supervisions will be conducted over the project’s lifetime. The project will be supervised on a risk-based approach. Based on the outcome of the FM risk assessment, the following implementation support plan is proposed (Table 13). The objective of the implementation support plan is to ensure that the project maintains a satisfactory FM system throughout its life.

**C. Procurement**

22. **Applicable procurement rules and procedures.** All goods, works, and non-consulting services to be financed by the Loan will be procured in accordance with the requirements set forth or referred to in Section VI, “Approved Selection Methods: Goods, Works, and Non-Consulting Services” and Section VII, “Approved Selection Methods: Consulting Services,” of the World Bank “Procurement Regulation for Borrowers under Investment Project Financing,” dated July 1, 2016 and the “Guidelines on Preventing and

<sup>47</sup> Banque Centrale des Etats de l’Afrique de l’Ouest (Central Bank of West African States).



*Combatting Fraud and Corruption*” revised in June 2011; the Project Procurement Strategy for Development (PPSD) and Procurement Plan approved by the World Bank on February 20, 2018. The Procurement Plan specifies for each contract: (a) a brief description of the activities/contracts; (b) the selection methods to be applied; (c) the estimated cost; (d) time schedules; (e) the Bank’s review requirements; and (f) any other relevant procurement information.

23. The Procurement Plan covers the first eighteen (18) months of project implementation. The Borrower shall submit to the World Bank, for its review and approval, any updates of the Procurement Plan approved by the World Bank. The Recipient shall use the World Bank’s online procurement planning and tracking tools to prepare, clear, and update its Procurements Plan and conduct all procurement transactions. For national competition, the Borrower and the World Bank will agree on provisions to consider for the bidding document to be used for consistency between national procurement procedures and the new procurement framework. Those provisions will include, among others, provisions for confirming the application of, and compliance with, the World Bank’s Anti-Corruption Guidelines, including without limitation the World Bank’s right to sanction and its inspection and audit rights.

24. **Procurement arrangements for delivery of value for money in achieving the PDOs.** The Borrower has prepared a short-form of the PPSD that was communicated to the World Bank in August 8, 2017. The PPSD observes that issues that affect the transparency and efficiency of the national procurement system persist, although a new Procurement Code<sup>48</sup> has been adopted, a national procurement capacity building program is being implemented at the central and deconcentrated entities level, and an electronic system for collecting and disseminating procurement information and monitoring procurement statistics has been set up. The persistent issues include the need for (i) establishing and operationalizing procurement cells in the ministries, which remain weak, and (ii) training enforcement officers on the new code, which is not yet effective. In addition, the volatile socio-political situation does not guarantee effective functioning of the procurement system and has considerably increased fraud and corrupt practices. The government is trying to fight these problems by implementing mechanisms such as the Code of Ethics at the level of ministers and officials, but the results are not yet evident and there has been no evaluation.

25. Given that Côte d’Ivoire and the PCU (FIRCA) have experience with current World Bank–funded projects, the PPSD notes that the operational context is rather favorable to the successful implementation of the proposed project. The PPSD foresees that around 175 contracts, for approximately US\$141.5 million, will involve procurement. Based on the risk analysis, the PPSD identified 25 contracts among the 175 (mainly for feasibility studies and construction of processing platforms and storage facilities and rehabilitation of rural roads) for an amount of US\$114 million that are critical for project implementation, and for which the procurement process and execution must be monitored closely. The market analysis concluded that contractors, suppliers, and service providers with sufficient capacity and competition exist both nationally and internationally. For some consultancies requiring technical expertise for which no suitable private sector alternative exists, however, the project will rely on specialized research institutes/centers through direct selection.

26. **Oversight and monitoring arrangements for procurement.** Given that the Borrower already possesses capacity through the existing FIRCA structure, a need for expanded hands-on implementation support from the World Bank is not foreseen, apart from the normal project supervision that will be

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<sup>48</sup> The new Procurement Code was adopted in line with WAEMU procurement directives and international good practice, and key implementing regulations and documentation (Decree N°2009-259 dated August 6, 2009 and modified in July 2015 through the Decree N°2015-525 dated July 15, 2015).



conducted at least twice annually. Note also that no single contract will require review by the Operational Procurement Review Committee or involve the use of negotiations or competitive dialogue. A Procurement Plan outlines the procurement procedures to be used to plan and monitor implementation of investment activities; that plan (an output of the PPSD) was prepared and agreed upon by the World Bank and GoCI. For each contract to be financed by the project, the different procurement or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frames should always be agreed between the Recipient and the World Bank through the Procurement Plan. The Procurement Plan may be updated at least every 12 months, or as required, to reflect actual project implementation needs, but each update shall require World Bank approval. All procurement plans will be publicly disclosed in accordance with the World Bank's disclosure policy.

#### D. Environmental and Social (including safeguards)

27. **Positive and negative impacts.** Planned activities are likely to have positive impacts on the socio-economic situation but also negative impacts on the biophysical and human components in the project area. For instance, they could generate technological (industrial) risks, disrupt the living environment, produce solid and liquid waste, promote insecurity at work, occupy private land, pollute natural resources (water, air, soil) and encourage the use of agro-chemicals, including pesticides, to improve productivity and storage of cashew. The challenge therefore is to combine the development of the project's activities with the requirements of environmental and social management.

28. Activities in the project will provide environmental and social benefits to the people in the project area. These benefits will include, but are not limited to: (i) on-farm increased cashew productivity and quality leading to increased incomes; (ii) enhanced rural mobility for goods and people and improved access to markets; (iii) improved agricultural services for cashew producers (extension, R&D, access to finance, improved planting material, and so on); (iv) job creation, especially for youth and women, through the establishment of processing platforms; (v) an improved business environment and financing instruments that will facilitate investment in the poorer regions of the country; and (vi) effective development of national, regional, and international markets for cashew products. Other benefits are the improved management of pesticides, the reduction of various forms of pollution, and better management of solid and liquid waste. The negative impacts will include risks of soil, water, and air pollution, noise, loss of plant species, waste production, risks of accidents at work, traffic, and social conflicts between local populations and site staff in the event of non-recruitment of local populations, among others. In any case, the various alternatives, the organization of work, and technical capacity building of the actors will minimize these impacts.

29. **Project category and safeguards.** The project has been classified as a "Category A" as the foreseen activities are likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. Further screening revealed that six safeguard policies are triggered: 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); and Involuntary Resettlement (OP/BP 4.12).

30. *Environmental Assessment OP/BP 4.01.* This project is planning to finance the rehabilitation and construction of roads to better link cashew production areas to markets (Subcomponent 2.4). The project will also support development of four agro-industrial platforms that will include basic infrastructure and storage facilities (Subcomponent 3.2). While the exact locations of these investments are not yet known, the proper safeguard instrument to be prepared in compliance with this policy is an ESMF. The latter was



prepared by the government, consulted upon, and disclosed in-country and on the World Bank external website on April 4, 2017.

31. The ESMF outlines an environmental and social screening process, including institutional responsibilities for screening, review, and clearance, and implementation of mitigation and monitoring measures for future investments. This screening process consists of: (i) an environmental and social screening form to determine potential adverse environmental and social impacts and record the outcome of consultations; (ii) an environmental and social checklist with generic mitigation measures to be adapted to the specific investment; (iii) a summary of the World Bank's safeguard policies; (iv) an Environmental and Social Management Plan (ESMP), including environmental monitoring indicators and capacity-building activities; (v) Environmental Guidelines for Contractors; and (vi) generic environmental impact assessment terms of reference. It is also designed to serve as a guide for developing ESIA's, which include ESMPs. With regard to the potential adverse environmental and social impacts associated with the processing platforms, the ESMF includes ToRs for a SESA, which will be carried out as part of project implementation.

32. The ESMF also includes specific chapters to address all issues related to Natural Habitats, Forests, and Physical Cultural Resources. With regard to *Natural Habitats (OP/BP 4.04)*, the project will be implemented in areas where forests still exist. This kind of environment concentrates various insects and other types of animals, whose natural habitat could potentially be affected by project activities, mainly by the opening and rehabilitation of roads. However, there is no specific safeguard instrument to be prepared. This issue will be considered as part of the ESMF.

33. *As for Forests (OP/BP 4.36)*, special attention must be paid to avoiding or at least minimizing adverse impacts on forest resources. Project activities will be implemented in zones that include forested areas, which may affect forest health and quality or the rights and welfare of people and their level of dependence upon interaction with forests, and may also lead to changes in the management, protection, or utilization of natural forests or plantations. The ESMF prepared in accordance with OP4.01 provides guidance to address matters related to forest protection. During implementation, a management plan will be prepared if necessary.

34. *Physical Cultural Resources OP/BP 4.11*. Activities supported by the proposed project, such as the rehabilitation of feeder roads, construction of processing platforms, and construction of storage and warehouse facilities will unquestionably involve excavations that may unearth physical cultural resources. The triggering of this policy does not entail preparation of a specific safeguard instrument, however; a chapter in the ESMF provides guidance in the event that physical cultural resources are discovered.

35. *Pest Management OP 4.09*. Even if the project does not directly purchase fertilizer and agro-chemicals to increase cashew production and productivity (Subcomponent 2.1), it may induce the use of those products by cashew producers for pest and disease management. Consequently, an IPMP was prepared, consulted upon, and disclosed in-country and on the World Bank external website on April 4, 2017. The IPMP provides guidance to prevent farmers from using pesticides and other chemical products without taking safety precautions. It informs them about authorized products, risks related to water and soil pollution, as well as the risks to human health.

36. *Involuntary Resettlement OP/BP 4.12*. Interventions such as rural roads, processing platforms, and storage facilities are expected to lead to land acquisition or restriction of access to sources of livelihood. Therefore, an RPF was prepared by the Borrower as due diligence for the activities triggered by OP 4.12,



given that the specific sites or impacts of planned physical investments are not known. The RPF was approved and disclosed in country and on the World Bank external website on April 4, 2017. The RPF will be used as a guide to conduct specific Resettlement Action Plans (RAPs) as needed, as well as to undertake compensation measures to minimize negative impacts on Project Affected Peoples. The RAPs will be submitted to the Bank for approval prior to the commencement of any civil works.

37. The Loan Agreement will require the Government of Côte d'Ivoire to prepare and submit to the World Bank for prior approval and disclosure any required ESIA's including ESMPs in accordance with the ESMF, for the activities proposed to be carried out under the ongoing operation. Prior to commencing any works, the government will take all actions required by the ESMP and obtain the World Bank's confirmation that the works may commence. Finally, the PCU will report quarterly to the World Bank on the environmental safeguard measures taken through a specific Safeguard Monitoring Report. A summary of this specific report will be included in the periodic project progress reports.

38. To ensure that the safeguard instruments prepared in line with policies triggered by the project are implemented properly, the PCU will hire an environmental safeguard specialist. This specialist will be fully in charge of all aspects of environmental safeguards and will regularly monitor all safeguard requirements. World Bank supervision missions will also include environmental and social safeguards specialists to ensure that all safeguard issues are addressed properly, in a timely manner.

## E. Monitoring and Evaluation

39. *Overview.* The project M&E system will be embedded into, aligned with, and capitalize on existing M&E systems, including the World Bank reporting system as well as national development strategies. It will make use of various tools, including baseline studies, the results framework matrix, PCU and PIA reports, M&E surveys, beneficiary assessments, and simple databases for recording physical progress. It will use conventional top-down approaches combined with typical participatory methods involving beneficiaries and other external stakeholders. The system will require periodic reporting on selected key indicators of project performance and impact. As part of the implementation of the M&E system, all PIAs will prepare and submit progress reports to the PCU. At the beneficiary level, leaders of cashew grower cooperatives and the processing industry will have a system to record project performance and impact. The overall objective of the M&E system is to establish an MIS that enhances the commitment of primary stakeholders (project implementers, cashew growers, and processors, among others) to achieving a better-performing project and value for money in planned interventions. M&E will be driven by a results-oriented management philosophy based on three aspects: performance self-assessment, assessment by cashew growers and industry, and impact assessment.

40. *System principles.* The following principles will be adopted. First, *project performance* will be monitored by recording delivered activities or achieved outputs, such as training sessions, technology demonstrations and transfer, and construction of facilities against planned activities and outputs. The information will be kept to a minimum and be functional. It will be linked to financial data to ensure overall measurement of project progress and include data on early-stage indicators of project performance, and it will support project supervision by ensuring that data on performance indicators are available according to a predetermined schedule. Second, *project impact*, providing insight into the higher-level indicators of the results framework, will be evaluated through specific impact studies planned by the PCU in partnership with key value-chain actors. The impact studies will consist of baseline and follow-up surveys and impact studies for specific project interventions. As feasible, they will be related to some of the IDA core indicators and to broader aspects of the project, such as its impact on cashew growers' income, on-



farm and off-farm employment, gender, youth participation in the cashew subsector, and other variables affecting the social status of communities where project activities are being implemented. Third, *learning* will be an important component of the M&E system, which will provide information for annual and quarterly planning and review meetings. Documentation of best practices, challenges, and outcomes of impact at all project levels will be carried out as part of standard M&E activities.

41. *Institutional structure and responsibilities.* The project will strengthen internal M&E and fiduciary systems, including development of a computerized data management and membership mapping system for all cashew value-chain actors, and specialized TA in data collection, management, analysis, and dissemination. The PCU will assume overall responsibility for project M&E, including collation, analysis, and dissemination of reports and preparation of IFRs. It will rely on key PIAs to perform operational M&E of progress in implementing activities under their responsibility. Where feasible, innovative data collection methods will be used, such as the geo-referenced information system foreseen under Component 1, which will complement the MIS on market data and market promotion initiatives. The MIS will be established at the PCU and operated by the PCU M&E specialist, who will ensure that all M&E personnel of all partner institutions at the national, provincial, and communal levels have the requisite capacity to collect the required information and adhere to uniform reporting procedures. The MIS will foster effective control and decision-making, improve monitoring of operations, and optimize resource use by tracking and extrapolating data. The project will benefit from periodic surveys by CCA and statistical data and analyses by relevant line ministries and the National Statistics Office (INS).<sup>49</sup>

42. *Data collection.* Using the M&E system to document indicator definitions, sources, and methods of data collection increases the likelihood that comparable data will be collected over time, even when key personnel change. To achieve this objective, a performance indicator reference sheet will be prepared for each indicator before any data collection activity is undertaken. The reference sheet will at a minimum include precise indicator definitions; unit of measure; justification or management utility; disaggregation (for instance, by gender or geographic location) as applicable; method of data collection or calculation; data source(s); data collection periodicity or timing of data acquisition; known data limitations (if any); actions taken or planned to address data limitations; procedures for data quality assessment; and plan for data analysis, review and reporting.

43. The project will collect missing baseline data, and at the start it will establish a plan for collecting performance data for subsequent years. A joint World Bank–GoCI semi-annual implementation support mission will assess the status of key project outcomes. Results will be monitored throughout project implementation. When key results fall short of expectations, special evaluations will be conducted. Such evaluations will be based on special surveys, interviews, or case studies designed to respond to emerging information and answer associated questions. A Mid-Term Review will be conducted two years into the project to assess achievements and constraints, and recommend adjustment as needed. A final evaluation will be conducted to assess overall achievement of expected results. A project completion report will be prepared no later than six months after the end of the project.

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<sup>49</sup> Institut National des Statistiques.



44. *M&E guidance and capacity building.* An M&E Guide will be prepared in the project inception phase, defining and specifying the type of data to be collected, the roles and responsibilities regarding data collection and analysis, the frequency, methodology, and reporting formats. The M&E Guide will also include a tentative time schedule for the required independent evaluations (mid-term and end of project). Moreover, this guide will outline how risks—as formulated in the PAD—will be monitored. The project will strengthen the M&E capacity of the PCU and its implementing partners. The M&E Guide will include a description of the financial and human resources allocated to the M&E function in this project, including job descriptions of staff (at least one M&E officer in the PCU). To ensure effective utilization of the M&E system and its overall sustainability, users of the system will be trained in the principles and instruments and formats to be used.



## ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY: CÔTE D'IVOIRE

Cashew Value-Chain Competitiveness Project

### A. Strategy and Approach for Implementation Support

1. The strategy and approach for implementation support aim to: (i) start implementation even before effectiveness, and ensure that the disbursement ratio remains above the project disbursement profile at all times over the life of the project; (ii) prevent key project risks (technical, fiduciary, and so on) from eventuating or, if they are unavoidable, reduce their potential impact to a minimum level; (iii) include adequate M&E of implementation progress and results, including at least one rigorous impact evaluation of project interventions, and document scalability to other value chains and in other regions. The strategy involves three levels of responsibilities and actions (project, government, and task team).
2. **At the project level**, to minimize the risks associated with project design and capacity risk, core PCU staff will include a national coordinator who will be responsible for the overall day-to-day implementation and coordination of project activities. The coordinator will be assisted by two technical operations managers (one for on-farm production and the other for industrial processing) and technical support to PIAs on their respective areas of need. When necessary, the PCU will also request support from government bodies such as CNRA, AGEROUTE, ANADER, AGEDI, and ANDE in their respective areas of expertise. It will also hire qualified consulting firms, individuals, and providers of goods and services to deliver quality products and services for the project when deemed necessary.
3. **At the government level**, the Technical Committee assigned by the PMO may carry out periodic or unscheduled missions based on issues that may surface during implementation. This committee will also work with decentralized government units, such as the MINADER extension services, to identify any such issues at an early stage by performing regular reviews, providing summary notes on project quarterly reports, and participating in planning and coordination activities at the regional and communal levels.
4. **The World Bank task team** will provide continuous implementation support, through a core team composed of the task team leader (TTL), the fiduciary specialists (FM and procurement), the safeguards specialist (environmental and social) and a program assistant based in the country office. The frequency of formal Implementation Support Missions (ISM) will be as follows: (i) One ISM every four months for the first sixteen months following project approval, and one ISM every six months in the subsequent project period; (ii) between missions, virtual ISMs will be agreed on with the government as the need arises. Mission scheduling and ToRs will be agreed upon with the government. A Mid-Term Review will be conducted two-and-a-half years after project effectiveness to assess project progress toward achieving the PDO. The skills mix of mission teams will be selected considering World Bank expertise, and additional support will be provided as necessary by the Food and Agriculture Organization Investment Center and independent consultants.
5. As successfully experienced during project preparation, the formal ISM will include as much as possible a workshop (2–3 days) involving all project stakeholders (ministries, development partners, private sector, cashew cooperatives, and so on) for information sharing, enhancing participation, inclusion, and accountability of all parties in project successes and possible failures. In addition, this



practice will ensure adequate awareness of the project among the wider public and will also contribute to reducing governance risk.

6. ISMs will place particular emphasis on four aspects of implementation. First, *governance* of the project will be monitored during the bi-annual ISMs. Second, *institutional capacity of the PCU and the PIAs* will be monitored to ensure that adequate capacity is in place at any time to carry out project activities efficiently. Third, with respect to *M&E*, the World Bank will complement the project's M&E activities by carrying out bi-annual ISMs during which performance indicators will be closely monitored. Field visits will be undertaken to verify data in M&E reports and to ensure that the M&E system is generating a complete and accurate picture of project performance. Fourth, the World Bank safeguards team will supervise the implementation of all *environmental and social safeguard instruments* (ESMF, IPMP, and RPF), provide guidance to the project team and client in applying these instruments, ensure timely preparation when and wherever required of ESAs and RAPs for specific activities, and oversee adequate implementation, monitoring and documentation of mitigation plans. Capacity-building activities in the areas of environmental and social management will also be provided to implementing partners at all levels.

7. Furthermore, ISMs will pay attention to *fiduciary management*. FM risk was assessed as Substantial. Mitigation measures will be implemented (Annex 2), and as part of the bi-annual ISMs, the World Bank FM specialist will conduct reviews to ensure the adequacy of systems and capacity over the course of implementation, provide advice and guidance on related issues, and recommend/arrange for training and capacity strengthening where and if needed. With regard to *procurement*, the focus will be on providing training to PCU staff, reviewing procurement documents, and providing timely feedback; providing detailed advice on World Bank Procurement Guidelines; monitoring procurement progress against the detailed procurement plan; and monitoring whether the implementation of contracts complies with World Bank fiduciary guidelines as well as with the obligations stipulated in the contract. Both the FM and procurement specialists will be core members of the periodic ISMs.

8. Finally, the ISMs will promote *close coordination with other development partners* as well as with research institutions, NGOs, and the private sector involved in the cashew subsector, such as the African Cashew Alliance, GIZ, Technoserve, and RONGEAD.

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

9. Given the overall design and scope of the project, a multi-disciplinary team comprising technical specialists, along with fiduciary, environmental and social, and operations specialists will be needed to support GoCI in implementing the project. A number of technical specialists are based in the region and country office and can be called upon to provide support as needed. This approach will facilitate overall implementation and timely communication with the client and the various stakeholders involved in implementation. It will also allow timely follow-up on specific issues and/or areas of concern when needed. Tables 16, 17, and 18 provide more detail on the elements of support to implementation over the project period, including the timing, expertise required, and partners involved.



**Table 16: Focus and timing of support to implementation during the project period**

Time	Focus	Skills needed
Project launch (1 mission)	<ul style="list-style-type: none"> <li>• Constitution and transfer of project documentation and files to the PCU and PIAs</li> <li>• Technical assistance to PCU on project planning</li> <li>• Validation of the implementation plan for year 1</li> <li>• Training in project manuals and World Bank safeguard instruments</li> </ul>	<ul style="list-style-type: none"> <li>• Agribusiness Specialist</li> <li>• Social and Environmental Safeguards</li> <li>• Financial Management Specialist</li> <li>• Procurement Specialist</li> <li>• Trade and Capacity Building specialist</li> <li>• Operation Officer</li> <li>• Program Assistant and Communication Specialist</li> </ul>
0–12 months (3 missions)	<ul style="list-style-type: none"> <li>• Procurement—processing of first contracts and management of project funds</li> <li>• Support on specifics of the implementation plan</li> <li>• Technical assistance to PIAs for implementing the project</li> <li>• Review of progress made in year 1</li> </ul>	<ul style="list-style-type: none"> <li>• Agribusiness Specialist</li> <li>• Social and Environmental Safeguards</li> <li>• Financial Management Specialist</li> <li>• Agri-finance Specialist</li> <li>• Trade and Capacity Building specialist</li> <li>• Procurement Specialist</li> <li>• Program Assistant</li> </ul>
13–24 months (2 missions)	<ul style="list-style-type: none"> <li>• Technical support for implementing project activities</li> <li>• Routine FM and procurement reviews</li> <li>• Management of safeguards and monitoring of implementation of safeguard-related measures</li> <li>• Review of progress made in year 2</li> </ul>	<ul style="list-style-type: none"> <li>• Agribusiness Specialist</li> <li>• Social and Environmental Safeguards</li> <li>• Financial Management Specialist</li> <li>• Procurement Specialist</li> <li>• Institutional Development Specialist</li> <li>• Operation Officer</li> <li>• Program Assistant</li> </ul>
25–36 months (2 missions)	<ul style="list-style-type: none"> <li>• Technical support for implementing project activities</li> <li>• Routine FM and procurement reviews</li> <li>• Management of safeguards and monitoring of implementation of safeguard-related measures</li> <li>• Review of progress made in year 3</li> <li>• <i>Medium Term Review (MTR): Develop MTR action plan</i></li> </ul>	<ul style="list-style-type: none"> <li>• Agribusiness Specialist</li> <li>• Social and Environmental Safeguards</li> <li>• Financial Management Specialist</li> <li>• Procurement Specialist</li> <li>• Trade and Capacity Building Specialist</li> <li>• Agri-finance Specialist</li> <li>• Operation Officer</li> <li>• M&amp;E Specialist</li> <li>• Program Assistant</li> </ul>
37–48 months (2 missions)	<ul style="list-style-type: none"> <li>• Support MTR action plan and follow up on actions/recommendations of the MTR</li> <li>• Adjust plan for implementing activities per component and subcomponent</li> <li>• Routine FM and procurement reviews</li> <li>• Management of safeguards and monitoring of implementation of safeguard-related measures</li> <li>• Review of progress made in year 4</li> </ul>	<ul style="list-style-type: none"> <li>• Agribusiness Specialist</li> <li>• Legal Adviser</li> <li>• Social and Environmental Safeguards</li> <li>• Financial Management Specialist</li> <li>• Procurement Specialist</li> <li>• Trade and Capacity Building Specialist</li> <li>• Agri-finance Specialist</li> <li>• Program Assistant</li> </ul>
49–60 months (2 missions)	<ul style="list-style-type: none"> <li>• Technical support for implementing project activities</li> <li>• Routine FM and procurement reviews</li> <li>• Management of safeguards and monitoring of implementation of safeguard-related measures</li> <li>• M&amp;E</li> </ul>	<ul style="list-style-type: none"> <li>• Agribusiness Specialist</li> <li>• Social and Environmental Safeguards</li> <li>• Financial Management Specialist</li> <li>• Procurement Specialist</li> <li>• Trade and Capacity Building Specialist</li> <li>• Operation Officer</li> <li>• Program Assistant</li> </ul>
60–66 months (1 mission)	<ul style="list-style-type: none"> <li>• <i>Implementation Completion and Results Report (ICR)</i></li> </ul>	<ul style="list-style-type: none"> <li>• ICR Task Team Leader and assessment team</li> </ul>

**Table 17: Required skill mix for implementation support**

Skills needed	Number of staff weeks	Number of trips per year	Comments
Team Leader (TTL)	12	3	Headquarter based
Trade and Capacity Building Specialist, co-TTL	12	2	Headquarter based
Procurement Specialist	6	na	Country Office based
Financial Management Specialist	6	na	Country Office based
Disbursement Specialist	1.5	1	Kenya Office
Legal	4	1	Headquarter based
Project Administrative Support	12	na	Country Office based
Operations Specialist	12	2	Headquarter based
M&E Specialist	4	1	Consultant
Agri-finance Specialist	6	1	Headquarter based
Environmental Specialist	6	2	Country Office based
Social Specialist	6	2	Country Office based

**Table 18: Partners**

Name	Institution	Role
<b>EIB</b>	European Investment Bank	Financing of a Line of Credit or a Risk Sharing Facility for the cashew industry and related technical assistance (preparation on-going)
<b>IFC</b>	World Bank Group	Capacity building for cooperatives to facilitate their access to finance, educating bankers on the nature of the businesses in the cashew industry, and supporting ANDE for the implementation of an electronic platform for environmental impact assessment
<b>ACA</b>	African Cashew Alliance	Training of Trainers—Cashew production
<b>RONGEAD</b>	Non-governmental non-profit organization/France	Training of farmers –Value-chain structuring
<b>GIZ</b>	German Cooperation Agency	Consultations and complementarity for selected activities
<b>Technoserve</b>	Non-governmental non-profit organization/France	Value-chain structuring –cashew processing technology



## ANNEX 4: ECONOMIC AND FINANCIAL EVALUATION

### COUNTRY: CÔTE D'IVOIRE

#### Cashew Value-Chain Competitiveness Project

##### A. Methodology

1. An economic and financial analysis was carried out to determine the project's (i) financial impact for individual beneficiaries along the cashew value chain, and (ii) economic benefits at the country level of cashew production and exports. The analysis is based on a comparison of the situation with and without the project to establish the incremental advantages due to project implementation. The financial analysis quantifies the benefits accruing through the project's support of income-generating activities in the cashew value chain at the production, storage and processing levels. On the cost side, the analysis takes into account all project-supported private investments undertaken by farmers, traders, transporters and processors at the farm, warehouse and factory levels. The economic analysis quantifies the benefits accruing to the country through the export of both RCNs and cashew nut kernels. It considers all project-financed public and private investments. No attempt has been made to estimate the intangible benefits accruing from the financing of public investments (in rural roads and economic zone infrastructure, for example), as well as from capacity building for partner institutions and private operators, or the improvement in the business climate; these benefits are substantial but difficult to quantify. For that reason, the estimate of the project's economic profitability is conservative.

2. The incremental benefits and expenditures of the project are considered over a 20-year period corresponding to the economic life of cashew trees, as well as public infrastructure facilities rehabilitated or developed under the project, such as access roads or equipment for industrial zones. To assess the project's financial impact on individual beneficiaries, the analysis considers several typical subprojects at the farm, warehouse and processing levels. The analysis for the country as a whole is performed considering all incremental costs and benefits valued in economic terms net of transfers. The discount rate used for the computation of the net present value (NPV) is 6 percent which represents the cost of capital for Côte d'Ivoire on international markets. The exchange rate used is CFAF 553 per US\$, the rate prevailing in December 2017.

##### B. Project benefits and prices

3. The analysis considers financial benefits at three levels of the value chain: (i) **Farm level.** The project will increase the socio-economic well-being of populations in targeted areas by generating direct benefits for about 225,000 households (about 1.35 million persons) who cultivate about 3 hectares per farm. Cashew is an integral part of their livelihood base and an important source of their cash income. Farm-level benefits will derive from the improved practices of producers and access to modern agricultural technologies (planting material, post-harvest handling and other inputs), and project-financed training, extension services and infrastructure; (ii) **Storage/warehouse level.** The project will support new SME entrants and increase the quality and capacity of existing SMEs interested and involved in the storage of RCNs and processed cashew kernels prior to export. New warehouse facilities and increased productivity of existing storage facilities will be based on project interventions for the installation an upgrading of equipment and buildings, skill development and other types of training, and access to finance, markets, and project-related public infrastructure; and (iii) **Processing ("industrial") level.** The



project will support two types of beneficiaries: (i) the government for the construction of four cashew processing platforms, and eight cashew service hubs; and (ii) private enterprises in the platforms involved in processing RCNs, producing and marketing by-products, and providing services such as innovative packaging solutions. The project will support interventions to develop the platforms, as well as to improve access to finance, markets, training and project-related infrastructure.

4. Table 19 shows the scope of project interventions in terms of the extension of the cashew production areas covered and the number of cashew processing and storage investment projects (the “subprojects” referred to earlier).

**Table 19: Scope of project interventions at the farm, storage, and processing levels**

Enterprise model	Area (ha)/ no. subprojects	Total production/capacity with project
<b>Farm/production level</b>		
Orchards (avg. 3 ha), including new plantations (5%) and rehabilitation of existing plantations (95%)	675,000 ha†	438,750 t RCNs‡
<b>Storage/warehouse level</b>		
Small-scale units (500 t), rehabilitation	333 units	166,000 t
Medium-scale units (2,000 t), new construction	15 units	30,000 t
<b>Processing/industrial level</b>		
Small-scale processing unit (3,000 t)††	10 units	30,000 t
Medium-scale processing unit (5,000 t)	8 units	40,000 t
Large-scale processing unit (10,000 t)	4 units	40,000 t
CNSL extraction and refining unit (3,400 t)	4 units	13,600 t
Cashew Service Hub	8 hubs	-
Industrial cashew processing platforms†††	4 platforms	-

† 225,000 smallholders @ 3 ha based on CCA data.

‡ Yield is expected to increase from 524 kg/ha to 650 kg/ha.

†† Existing or new small-scale processing units outside the platforms.

††† In Bouaké, Bondoukou, Korhogo and Séguéla.

5. **Farm-gate, warehouse, and factory-gate prices.** Season 2016-2017 prices are considered in the analysis at the mid-range of the market for the season. This estimate is conservative. Indeed, an increase in the farm, warehouse and factory gate prices is expected as farmers, storage entrepreneurs, and processors benefit from a reduction in transaction costs, better conditions of market access owing to improved rural roads and market development activities. Also, product quality is bound to increase due to improved post-harvest and transportation handling conditions, development of quality norms and standards, product screening and other actions. Hence project-supported products should command higher prices.

6. **Indirect benefits.** The main indirect benefits of the project are, amongst others: (i) institutional and organizational support to sector operators, and provision of assistance to business partnerships between these operators; (ii) support provided by government extension and research structures (CNRA research services, ANADER extension services, MIM technical services, in particular) for the development of high-performance technologies to be made available to producers and processors with the help of specialized assistance; (iii) capacity building of Ivorian service providers, both private and public, to provide inputs and training to the producers, storage entrepreneurs, and processors adopting the new technologies; and (iv) implementation and monitoring of environmental and social safeguard measures. These indirect benefits are substantial, but their impact on the income and well-being of project



beneficiaries is difficult to quantify. They have not been taken into consideration, and hence the results of the analysis are conservative.

### C. Financial analysis at the enterprise level

7. *Typical enterprise models.* The financial analysis considers the following typical enterprise models at the farm/production, storage/warehouse, and processing/industrial levels along the cashew value chain:

- a) **Farm-level/production of RCNs:** One model is considered for a typical farmer with a landholding of 3 hectares in mixed (i) existing cashew trees: introduction of Good Agriculture Practices-GAPs (95 percent), and (ii) new cashew trees (5 percent).

Key assumptions:

- *Current situation: cashew farm with 3 ha, 95% existing plantations or 643,000 ha (introduction of GAPs), current yield 524 kg/ha, and 5% new plantations or 32,000 ha (current yield is 0 kg/ha).*
- *Seedlings for new plantations are provided free of charge by the project but the other initial investment costs are covered by the producer.*
- *No initial investment costs for the existing plantations (training is covered by the project).*
- *All the annual maintenance costs are covered by the producer (labor is family labor and is not included as a cash expense).*
- *Production from the new trees starts from Year 3 and the yield increases gradually (Year 3 and 4: 325 kg/ha; Year 5: 488 kg/ha; Year 6 and onward: 650 kg/ha).*
- *Incremental yield increase of the existing plantations comes in from Year 3 (126 kg/ha) to reach 650 kg/ha.*
- *RCN price: CFAF 700/kg.*

- b) **Storage/warehouse for RCNs:** Two typical models are considered for private investors, corresponding respectively to (i) rehabilitated units of 500 tons capacity, and (ii) new units of 2,000 tons capacity.

Key assumptions:

- *Grant (50% of the investment for rehabilitation/construction) is offered to private sector investor either as a MG or for a collateral enhancement.*
- *Rehabilitation takes 3 months and construction 9 months.*
- *Revenue (500 t): about US\$35,000/yr. from cashew storage and about US\$7,500/yr. from storage of other products.*
- *Revenue (2,000 t): about US\$140,000/yr. from cashew storage and about US\$30,000/yr. from the storage of other products.*

- c) **Processing/industrial level:** The following models are considered as part of cashew processing: (i) three models for private investors: one for medium-scale processing units with a capacity of 5,000 tons and another one for large processing units with a capacity of 10,000 tons; these models include investments corresponding to the construction of basic facilities and buildings (including for the CNSL processing units), the productive equipment and the purchase of the initial product inventories; in addition, the project is considering a small-scale model with a capacity of 3,000 tons; this model includes investments for upgrading the technology, building expansion and initial working capital; except for the 3,000 tons capacity, all other models will lease the area required for their investments from the government (length of lease of 25 years



minimum); and (ii) two models for the government, corresponding to the development of the Cashew Processing Platforms (CPPs), and the Cashew Service Hubs (CSHs) which will support the linkages between the farmers and the CPPs.

Key assumptions (processing):

- RCN price: CFAF 800,000/t (US\$1,446/t). With other related costs (drying loss plus the trucking costs), the model uses US\$1,574/t delivered plant.
- Kernel outturn: 26.7% (net outturn after processing losses: 22.78%).
- Capacity utilization (3,000 t): 50% in Year 1; 75% in Year 2 and 100% from Year 3 and onward.
- Capacity utilization (5,000 t): 60% in Year 1; 80% in Year 2 and 3; and 100% from Year 4 and onward.
- Capacity utilization (10,000 t): 60% in Year 1; 80% in Year 2 and 3; and 100% from Year 4 and onward.
- Land is provided by the government on lease and buildings are provided by the investor.
- Price of kernels: US\$4.50/lb. (whole) and US\$3.50/lb. (broken). Prices as of 2/20/18 wholes US\$ 5.00/lb. and average broken US\$3.50/lb.
- Rent of land: CFAF 2000/sqm/year.
- Export subsidy: US\$723/t for cashew kernel.

Key assumptions (Cashew Processing Platforms):

- Platforms: Bouaké in 2018, Korhogo in 2019, and Bondoukou and Séguéla in 2020. Each platform contains buildings and other facilities for cashew processing including packing center, warehouse, and byproduct processing (CNSL and shell/cake).
- Infrastructure investment in the platform, except buildings, is 100% funded by the government.
- The platform will be leased to private investors, who will procure the buildings and equipment and manage the processing facilities.

Key assumptions (Cashew Service Hubs):

- The main objective of the CSHs will be to buy, dry, bag and store cashew from remotely located farmers for processing at the CPPs. These Hubs will also act as training centers and work in cooperation with the Cashew Extension Services operating nurseries and distributing seedlings and grafting of plants
- Revenue: the CSHs have three main income sources: procurement of raw cashew, storage, bagging/drying.

8. These models encapsulate the bulk of the project support for income-generating activities in the cashew value chain, both for farmers and investors as private economic actors, and for the government as a public economic actor. Other typical operational models exist that reflect other project-supported initiatives such as service-oriented, transport, and trading enterprises, including the youth agri-service enterprises. Because they are of lesser importance and more difficult to specify, however, they are not considered in the analysis, resulting in a conservative estimate overall of project profitability.



9. **Financial analysis at the enterprise level.** Financial profitability is estimated for each typical productive model based on the additional costs incurred by project beneficiaries and the additional monetary benefits they expect to receive. Each model requires producers/processors to incur additional cash and non-cash expenditures (investment and operating costs) under the project, compared to the without project reference situation.<sup>50</sup> Producers and processors may also need additional labor under the new farm, storage, and processing technologies that the project will promote. The additional benefits accruing to producers and operators in terms of increased output generated by project-supported access to high-yielding varieties, technologies and inputs, as well as improved facilities and market outlets, are expected in all cases to be greater than the increase in spending, and in the level of effort and additional amount of labor applied.<sup>51</sup> Hence the financial analysis shows that the project-supported enterprise models all yield profitable results; in other words, the estimated net returns are planned to be substantially positive in the with-project situation, even when the subsidy granted to project beneficiaries is removed (see para. 10 below).

10. **Subsidy.** The project subsidy (technical support, matching grants or security deposits) will help farmers and entrepreneurs hedge against the risk inherent in adopting new practices and technologies; it will help them also cover their possible negative cash flow during the initial production stage. The small-scale producers and SMEs targeted by the project are risk-averse and need to be incentivized financially beyond a certain profitability threshold to embark on the new ways of operating their farms and enterprises promoted with project support, and reach steady-state (the “cruising period”) when they have adopted the new technologies and reach the optimal operating capacity. This incentive is required even though the profitability of the new packages may be inherently positive. The rationale for the subsidy is to increase profitability at the farm/enterprise level to the point that farmers and entrepreneurs find it attractive to adopt the new technologies or undertake the required investments, against the possible risk of failure they face. The subsidy is also necessary to cover the expected negative cash flow that beneficiaries might incur during the initial cropping season or first year of processing, since benefits accrue with a time lag. Indeed, project beneficiaries are expected to find it difficult to obtain the required seasonal or short-term credit from commercial banks or specialized credit entities to cover their initial expenditures. The reason is that, in Côte d’Ivoire as in many other African countries these institutions are reluctant to lend for agricultural/agro-processing activities because they perceive these activities as inherently too risky and/or because they lack instruments adapted to their needs.

11. Owing to these considerations, at the production level, the project will provide a subsidy for incremental expenditures incurred by RCN producers for seedlings; it will also provide free of charge the technical support required for producers to adopt the improved planting packages. At the storage and processing level, the project will give a subsidy to: (i) warehouse investors in the form of MGs corresponding to 50 percent of eligible investment expenditures; and (ii) processors, in the form of access to the facilities of the processing platforms, including power and water supply, general administration, operating and maintenance services.

12. **Gross margin analysis.** The gross margin for the typical farm, storage, and processing models has been computed considering the incremental yields and corresponding incremental benefits, and the incremental expenses incurred under the improved technical packages supported by the project at the

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<sup>50</sup> The reference situation is zero for new units/facilities, such as new plantations for farmers, warehouses with a 2,000-ton capacity for investors, as well as CSHs and CPPs.

<sup>51</sup> Family labor valued at its opportunity cost in rural areas of approximately US\$ 2 per day.



farm, warehouse, and factory gate levels over the economic life of 20 years for the investments considered. The estimate has been made both for (i) the initial production cycle when farmers and processors are investing in new technology and learning about it through project-supported extension and training activities; and (ii) the *steady-state* situation when they have completed their investments and adopted all the sponsored new technologies, and therefore can reap their full benefits.

13. **Net present value (NPV).** The NPV of the typical operating models has been computed for the stream of net benefits with and without subsidy over the period of 20 years corresponding to the life of the productive investments supported by the project, at a discount rate of 6 percent, reflecting the opportunity cost of borrowing in Côte d'Ivoire (Table 20). The NPV for the typical models is positive both in the “with” and “without subsidy” scenarios, indicating that their investment initiatives are profitable and that they will be able to renew these investments at the end of their economic life time. Since the “without subsidy” situation also generates a positive NPV, the subsidy clearly is not required to yield positive returns; as earlier indicated, it is required to cover the possible negative cash-flow arising from the first production cycle(s), which beneficiaries cannot cover because they cannot obtain commercial financing).

14. **Internal rate of return (IRR).** The IRR has been computed for each farm, storage, and processing model based on the gross margins presented earlier. The incremental IRRs are about 41 percent at the farm level (base scenario with farm gate price of RCNs at CFAF 700/kg), and about 21 to 27 percent at the processing levels, higher than the opportunity cost of financing for producers and investors (this cost is estimated at 12–18 percent). These IRRs have the potential to give producers, as well as warehouse and industrial investors, the incentives to adopt the new technical packages (see Table 20). The IRR for the cashew service hubs is 12.25 percent. This figure is low compared to the other figures. But it is expected since the hubs represent public investments undertaken by the government with project financing to support the cashew supply chain overall organization as well as economic development in some of the poorest regions of the country. The IRR for the hubs nevertheless remains greater to the opportunity cost of government to borrow on international markets estimated at about 6 percent.

**Table 20: Financial results of typical enterprise models**

Farm/enterprise model	IRR (%)	NPV (US\$ 000s)
<b>Farm/production level</b>		
3 ha orchards (CFAF 700/kg of RCNs)	40.89	1.37
<b>Storage/warehouse level†</b>		
Small-scale unit (500 t), rehabilitation	26.30	21
Medium-scale unit (2,000 t), new construction	41.43	373
<b>Processing/industrial level</b>		
Small-scale processing unit (3,000 t)	20.79	1,319
Medium-scale processing unit (5,000 t)	25.61	1,995
Large-scale processing unit (10,000 t)	26.87	4,039
CNSL extraction and refining unit (3,400 t)	39.26	1,766
Cashew Service Hub	12.25	146



#### D. Economic analysis at the national level

15. **Methodology for the project economic analysis.** The economic analysis is conducted over a period of 20 years, corresponding to the economic life of cashew plantations as well as the roads and other infrastructure established under the project. A discount rate of 6 percent, reflecting the cost of capital for Côte d'Ivoire, is used to compute the NPV in economic terms. The conversion factor of financial prices to economic prices is estimated at 85 percent of the financial prices, to take into account transfers (including taxes and subsidies) between national agents involved in the cashew value chain which are not a cost to the Ivorian economy as a whole. On the cost side, the analysis takes into account all project costs, incurred for direct project supported production, storage and processing activities, as well as for the rehabilitation of supporting infrastructure, and provision of services and training. The MGs and other subsidies provided to beneficiaries are not deducted from the costs as done previously, when calculating the profitability after subsidy of the farm and enterprise models in financial terms. These subsidies are indeed a transfer from the government to national economic agents. On the benefit side, the analysis considers only the benefits accruing from the operation of farm and industrial enterprise activities supported under the cashew value chain, and not under other value chains/activities that may benefit from project spillovers. Cashew border prices are estimated without the tax and subsidy relating to (i) the tax on RCN exports (CFAF 30 per kilogram) and (ii) the processing subsidy granted (currently set at CFAF 400 per kilogram of processed kernels). The project should result in an increase in commodity prices relative to the current market prices owing to the expected increase in the quality of the end-product, the rehabilitation of roads to production sites that will facilitate access to markets, as well as the enhanced business environment, market access, and access to finance promoted under the project. This indirect benefit, as well as the benefits accruing from newly constructed and rehabilitated infrastructure and project-provided services, are not taken into account because they are difficult to quantify. Since all benefits are not fully accounted for, the results for overall profitability are conservative.

16. **Results of the economic analysis.** The economic net present value (ENPV) of the stream of net benefits in economic terms generated by project-funded activities over the period of 20 years for the whole country is approximately US\$319 million. The economic internal rate of return (EIRR) for the entire project is estimated at 48.06 percent. The economic results are positive, as expected for a commodity that exhibits a strong long-term market outlook and for which Côte d'Ivoire has a marked comparative advantage. The results are also robust against adverse economic events and implementation risks that the project may encounter. The sensitivity analysis demonstrates that under the scenarios of 20 percent cost increase and a two-year delay in benefit generation, the corresponding EIRRs remain substantially positive. Similar figures are also observed in the scenarios of decrease in sales (Table 21).



Key assumptions of the economic analysis:

- All cashew sales (kernels and RCNs) are treated as exports and received in foreign currency from foreign markets. Income of warehousing is not considered as foreign income.
- All Investment in machinery, preliminary expenses, and expenses on contingencies are in foreign currency from foreign markets.
- All salaries, wages, and administrative expenses are taken in foreign currency but from local markets.
- Spare parts and direct marketing costs are in foreign currency and from foreign markets. All other expenses are in foreign currency but from local markets.
- Site preparation and construction of buildings are estimated in foreign currency but from local markets.
- All currency from foreign markets will be affected by the exchange rate, while the currency spending in the local market will not be affected.
- Cashew sold at the farm gate will fetch CFAF 700/kg while the cashew purchased by the processing units will be at CFAF 800/kg to account for transportation expenses.

**Table 21: Economic results**

	EIRR (%)	ENPV (US\$ millions)
<b>Base results</b>	<b>48.06</b>	<b>318.92</b>
10% increase in costs	36.97	294.73
20% increase in costs	29.85	270.55
10% reduction in sales	30.36	162.98
20% reduction in sales and 10% reduction in RCN cost	25.16	117.07
One-year delay in project benefits	39.17	285.24
Two-year delay in project benefits	33.04	253.92
<b>Base results with carbon benefits</b>	<b>75.19</b>	<b>502.48</b>

17. **Greenhouse gas accounting.** The planned project intervention will also result in a net greenhouse gas sink of 10,211,361 tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>eq), corresponding to 0.72 tCO<sub>2</sub>eq per hectare per year. These benefits result largely from improved management of existing cashew orchards and replacement of old unproductive cashew trees with new ones (Component 2). Moreover, it is estimated that the proposed project will result in avoidance of GHG emissions otherwise associated to the need to transport (shipping) of about 2 million tons of RCNs to Asia, over the lifetime of the project. Specifically, due to investments under Component 3 allocated for the construction of processing platforms, cashew will be locally processed, therefore reducing overall emissions associated with overseas transport (emissions reduction per container) and energy savings. Net GHG savings on transport are estimated as 309,043 tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>eq), and those related to energy saving carbon equivalent are estimated at 600,363 tons. Following World Bank guidance, these benefits have been valued at a social value of carbon that is increasing over time in real value from US\$30 per tCO<sub>2</sub>eq in 2015 to US\$65 per tCO<sub>2</sub>eq in 2040 (see Table 21 above for corresponding EIRR and ENPV).



### ANNEX 5: OUTLOOK FOR CASHEW SUPPLY AND DEMAND

#### COUNTRY: CÔTE D'IVOIRE Cashew Value-Chain Competitiveness Project

##### A. The Global Cashew Market

1. **International demand for cashew nuts.** Following steady growth since the 1960's the cashew market has trebled in volume since 2000. It has developed from a luxury snack nut consumed in the affluent markets of the West to a product with diverse uses consumed worldwide. In the 15 years to 2016 it has been growing at a CAGR of 7 percent. Growth has been driven by growing affluence in India, the world's largest market as well as by changing consumption patterns in the markets of North America and Europe. Once considered mature, the markets of Europe and the USA have shown accelerated growth in recent years with five-year CAGR's of 8 percent and 7 percent respectively. This has been driven by trends in food consumption such as grazing, reduced meat consumption, vegetarianism, gluten free and high protein. Cashew consumption has also been increasing in the Middle East (five-year CAGR 6%) and China (ten-year CAGR 3%, five-year CAGR 7%). The growth trend is forecast to continue in the medium term.<sup>52</sup>

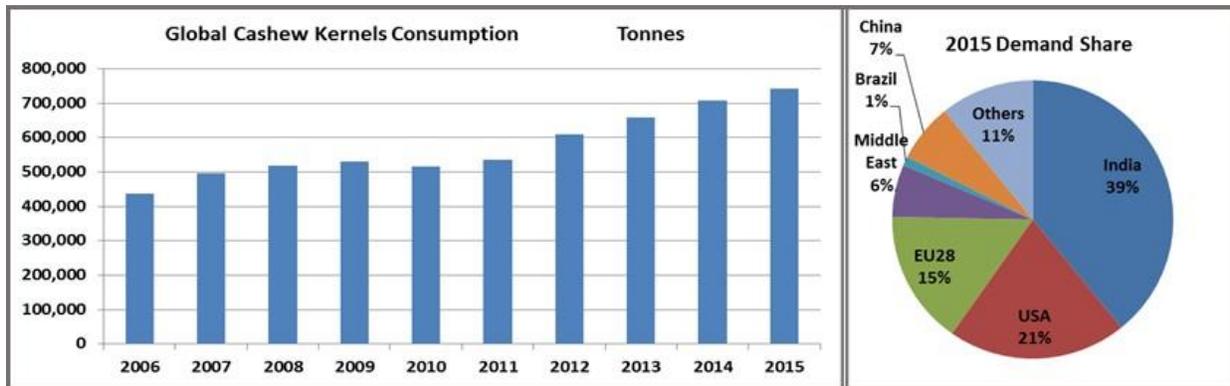
##### Box 5: Cashew production

Cashews are the third ranked tree nut by volume after almonds and pistachio and the fourth ranked by value after walnuts. The significance of cashew nuts lies in the facts that it is grown in areas which are often not suitable for other crops especially in Sub Saharan Africa by some of the poorest people to whom it offers an opportunity for significant income improvement and employment at a time when the demand for the product is growing and long-term prices are trending upward.

Cultivation of cashew nut trees spread around the World in the 15<sup>th</sup> century from its origins in Brazil often to protect cultivated land from harsh winds and heat. The international trade is relatively young. Its earliest roots are in the 1920's with trade from India. The international trade modernized in the 1970's and 1980's experiencing fast growth. In the following decade's commercial production, initially located in East Africa and India, spread to Brazil, Vietnam and West Africa as consumers' tastes for this luxury nut developed - for snacks in the West and a diverse range of uses in India and the Middle East.

Cashew trees produce from the third year and have an optimum production life of 20-25 years after which they need to be replaced or grafted with new seedlings. The growing of cashews is a relatively straightforward task which needs simple good orchard management and good harvest and post-harvest practices.

Figure 11: Global cashew kernel consumption

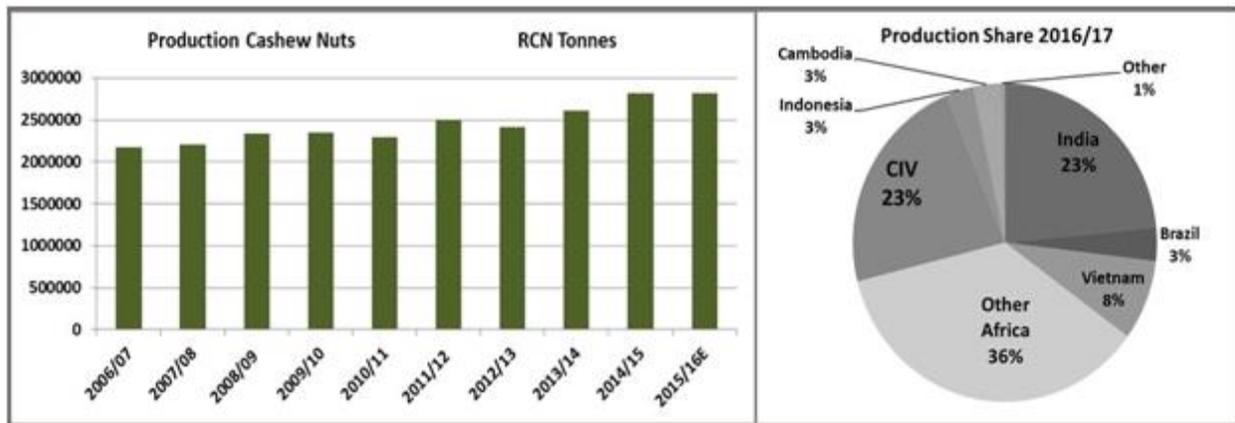


<sup>52</sup> Data in Annex 5 are based on a report by James Fitzpatrick (2016): *Cashew nuts in Cote d'Ivoire – an assessment and forecast of revenue, market trends and the impact of processing development.*



2. **Supply history.** Global cashew production has grown by 30 percent in the past 10 years. Cashew nuts are grown 20 degrees north and south of the equator. The tree is known for its drought resistance and was often planted to shelter marginal agricultural land from the elements. It is foreseen by many as fulfilling this role again as the impact of climate change develops. The vast majority of cashew trees are grown by smallholders in Africa, India, and South-East Asia. African countries and especially West Africa have been the drivers of growth in production. In 2017 it is estimated that 59 percent of the world cashews will be grown in African countries. This shift from Asia to Africa is forecast to continue as farmers in countries such as Côte d'Ivoire and Nigeria respond to higher prices and better support in the form of training, seedlings, and access to inputs.

Figure 12: Global RCN production



3. The shift in production from Asia to Africa has not been matched by a shift in domestic cashew processing. In 2017 it is estimated that 46 percent of the world cashews were processed in India which produces 23 percent of the world's cashews and 43 percent in Vietnam which produces only 8 percent of the world's cashews. More than 90 percent of the cashews grown in West Africa are exported in shell for processing in Asia. This results in a huge loss of value addition opportunity in producing origins, a heavy carbon footprint and high dependence by buyers in the European and US markets on Vietnamese processors (estimated at 76 percent of their needs in 2017).

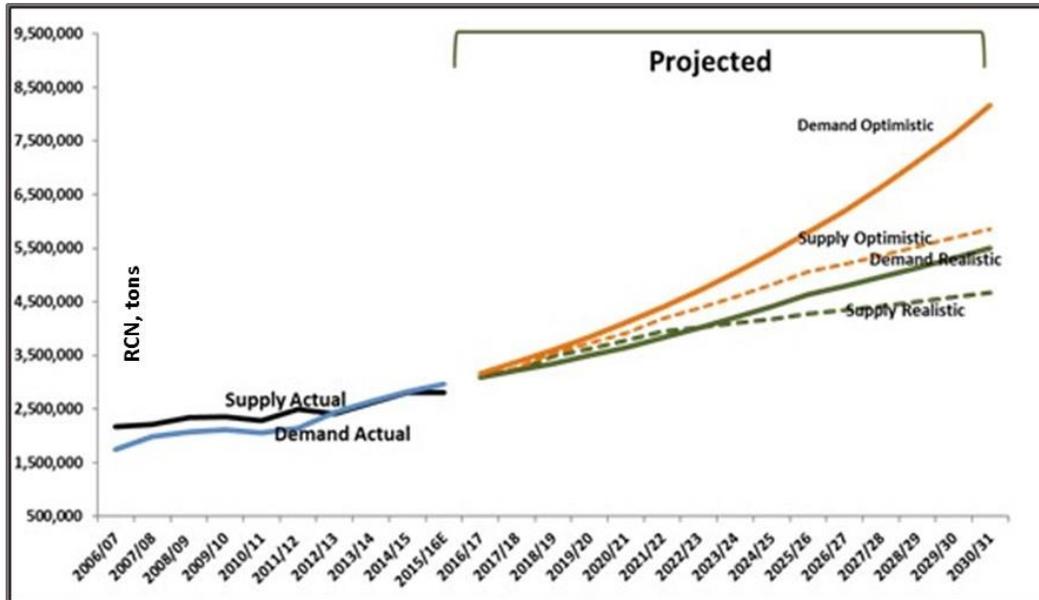
4. **Looking forward - supply, demand, and pricing.** Supply of cashews has not kept pace with growth in demand during the past decade and price has been rising. In that period the balance of supply and demand has changed from structural oversupply/low prices to a tightly balanced supply and demand with price volatility in response to poor harvests e.g. 2008 and 2011. Demand growth trajectory and the time lag in supply response now indicate that the market is entering a period of under supply and resultant rises in price.

5. Supply projections were compiled based on a continuation of the 5- 7- and 10-year trends to 2015. i.e. prior to weather damaged crops of 2016 and 2017, to remove the effects from the sudden sharp price increase. These were calculated on two bases – “realistic” and “optimistic”. On the supply side, the realistic scenario assumes continued increase based on the five-year CAGR to 2015 considering the age of the trees, availability of planting stock and farmers’ response to higher prices/development programs. The “optimistic” scenario assumes that farmers and governments will react to higher prices. It takes the highest calculated growth rate of 5,7,10-year CAGR adjusted for the impact of aging trees and limited only



by available land, planting stock and possible yield improvements. On the demand side, for the “realistic” scenario the current 5-year CAGR was used for the first five years, the lower of the 5 and 10-year CAGR was used for the second five-year period and from then forward a reduced projection was used on the basis that demand would react to higher prices. This gave growth rates of 2-3 percent in the major markets. In the “optimistic” scenario the current 5-year CAGR was used for the first five years and then the higher of the 5 and 10-year CAGR was used for five years reducing thereafter based on higher prices.

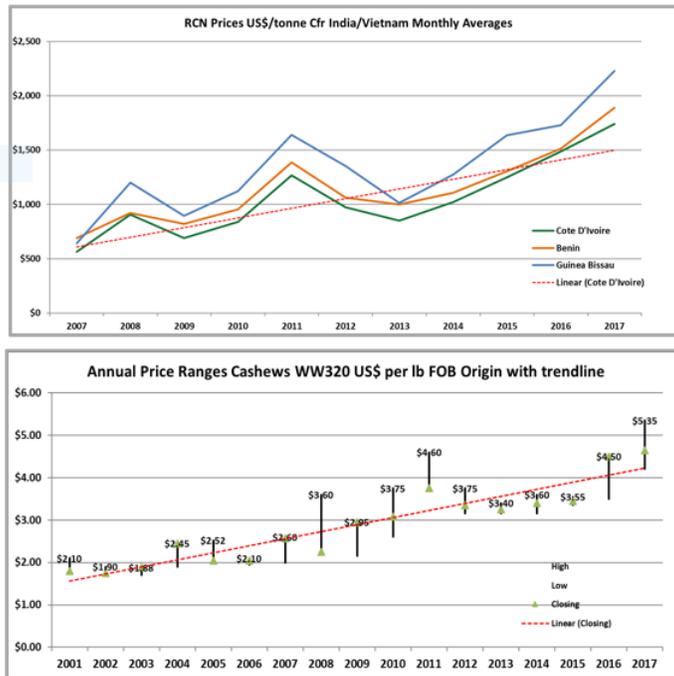
**Figure 13: Outlook for cashew supply and demand - 2030**



6. In both scenarios, the demand growth is projected to outpace the supply. Taking the trend in cashews WW320 prices FOB over the period 2001-2016 the trend is likely to be strongly upward. This reflects the increased demand and the slow response of supply to demand. The scenarios indicated that cashew kernels prices would reach a range of US\$4.20/lb. (realistic) to US\$4.40/lb. (optimistic) FOB WW320 in 2017 and continue upwards (prices are currently US\$4.60/lb.). This is more pronounced in the optimistic scenario. This does not consider any weather-related crop problems or higher inventories in response to price volatility.



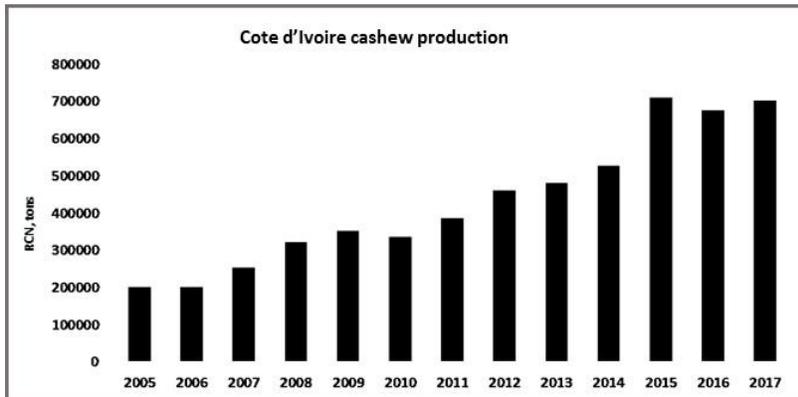
Figure 14: Price history for RCN and cashew kernels<sup>53</sup>



B. Cashews in Côte d'Ivoire

7. The development of cashew production in Côte d'Ivoire is one of the standout stories of the sector over the past 50 years. The country has transformed from a modest producer of relatively low-quality cashews with a market share of 7 percent at the end of the 1990s to vying with India since 2015 as the largest grower of cashews. In 2017, it is estimated that Côte d'Ivoire produced 22 percent of the world's cashews. It is most likely that Côte d'Ivoire will consolidate its position as the largest grower of cashews before 2020 as new plantings and improved methods instituted over the past five years' impact production (see Figure 15 for expected projections).

Figure 14: Cashew production growth in Côte d'Ivoire



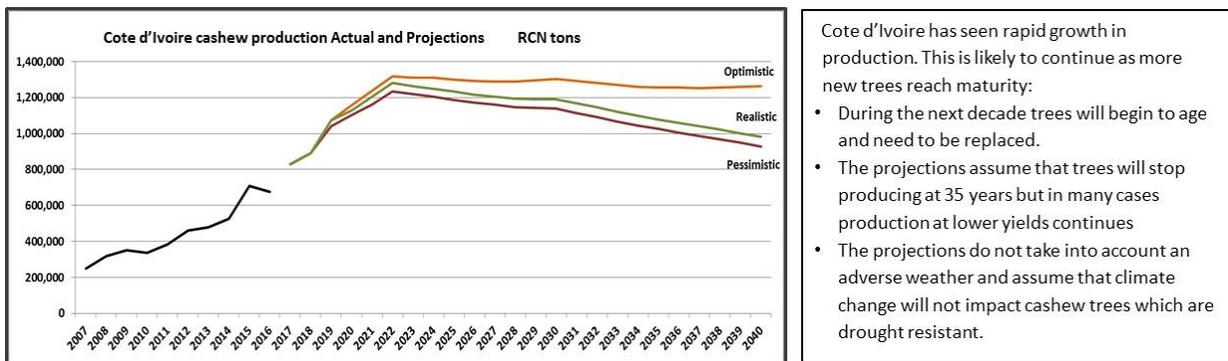
**Government policy:** It has been recognised as among the most effective in Africa by organisations such as Com Cashew and the ACA. Support for farmer training and extension, workable farm gate minimum pricing, targeted increase in processing, manageable levels of export levy on RCN export, subsidies for processors and linkage to technology through the SIETTA event are stimulating interest in investment from home and abroad.

<sup>53</sup> Cashew kernels are priced in US\$ per lb. WW320 are the benchmark grade for wholes.



8. Côte d'Ivoire is well suited to the growing of cashews, and there remains further scope for potential productivity gain. Cashews are grown by smallholders with relatively low yields compared to farmers in Vietnam or India. Production growth has primarily been by the planting of new trees from seeds. However, training and improved access to inputs have been effective in lifting on farm yields for some groups of farmers from 25 percent to 60 percent of the Indian national on farm average (500 kg/ha in Côte d'Ivoire vs. 845 kg/ha in India). With improvement and sustainable growth with research, expert opinions indicate that yields as high as 1000 kg/ha may be attainable with the application of GAPs and access to high quality inputs. There is also an opportunity to improve on farm incomes by improving quality. Côte d'Ivoire cashews are mid-range quality/price at present.

**Figure 15: Cashew production in Côte d'Ivoire – Projections**



Cote d'Ivoire has seen rapid growth in production. This is likely to continue as more new trees reach maturity:

- During the next decade trees will begin to age and need to be replaced.
- The projections assume that trees will stop producing at 35 years but in many cases production at lower yields continues
- The projections do not take into account an adverse weather and assume that climate change will not impact cashew trees which are drought resistant.



## ANNEX 6: CREDIT ENHANCEMENTS FOR THE IBRD ENCLAVE LOAN

### COUNTRY: CÔTE D'IVOIRE Cashew Value-Chain Competitiveness Project

#### A. Introduction

1. Per Bank Policy,<sup>54</sup> IBRD may extend investment project loans for projects in IDA-only countries, subject to credit enhancement features that adequately mitigate IBRD's credit risk. IBRD provides enclave investment project financing (IPF) to projects meeting two criteria: (a) that are expected to generate large economic benefits with significant developmental impact in the member country; and (b) that cannot be fully financed out of the country's own resources, IDA resources, and other concessional financing resources. IBRD provides enclave investment project financing only to IDA-only countries that will have the resources necessary to meet repayment obligations to IBRD, including sufficient foreign exchange. Consequently, enclave investment project financing may be provided in the following circumstances: (a) in an IDA-only country at low or moderate risk of debt distress,<sup>55</sup> for a project that does not itself generate foreign exchange, but has clear economic and financial benefits with strong financial flows in local currency, and where the country has sufficient alternative non-project related foreign exchange to cover the obligations to IBRD under the enclave loan; or (b) in any IDA-only country, for a foreign-exchange-earning project that generates sufficient foreign exchange to cover the country's obligations to IBRD under the enclave loan.

2. This proposed IBRD enclave loan complies with these policy requirements. This document summarizes the terms and conditions that will be included as part of the loan documentation to ensure that IBRD's credit risk is sufficiently mitigated by the security arrangements of the loan, all as described in this document.

#### B. Project Cash Flows Available for Debt Service

3. The Government of Côte d'Ivoire has set a levy on the export of raw cashew nuts at the rate of 30 CFA per kilogram, of which 20 CFA/kg will be allocated to service the IBRD enclave loan, prior to the remainder being available for other uses. The cash flows available for IBRD's debt service are subject to three distinct effects, which will affect revenue projections during the first ten years of the project:

- a) Revenue available for IBRD debt service increases in line with any overall increase in raw cashew production resulting from higher productivity.
- b) Revenue available for IBRD debt service is reduced as some raw cashew nut production is not exported (thus not subject to the levy), but rather diverted for processing within Côte d'Ivoire. As private-sector investment into the domestic transformation of cashew nuts is realized, there will be a smaller proportion of raw cashew nuts subject to the levy.
- c) Revenue available for IBRD debt service is also affected by the subsidy paid by CCA to support increased transformation of cashew production on-shore. There is little likelihood, however, that this subsidy will have a negative impact on the revenue available for IBRD debt service, even though it is financed by the same export levy, because the enclave loan explicitly requires that the "the first" 20 CFA/kg in revenue be allocated for IBRD debt service (See Section IV

<sup>54</sup> See the Bank Policy on Financial Terms and Conditions of Bank Financing, Section III.4.

<sup>55</sup> Under the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries.



below). Subsidy payments can only be made from revenue after this payment (the 10 CFA of revenue collected between the 20 CFA/kg paid to IBRD and the 30 CFA/kg total levy). Furthermore, the subsidy is scheduled to be withdrawn over time in two steps.

4. These three effects could affect the foreign exchange available for IBRD debt service. For this reason, specific loan covenants (described below in Section IV) protect IBRD from government policy changes that would negatively impact the availability of foreign exchange cash flow to service the IBRD loan. Specifically, these covenants require a minimum debt service coverage ratio and IBRD's consent prior to any change in the levy that may affect the ability of CCA to meet its enclave loan repayment obligations. A key incentive created by this structure is for the government to withdraw the subsidy to domestic producers of value-added cashew transformation, as these subsidies are one of the main drags on cash flow.<sup>56</sup>

5. The cash flows available to the project will inter alia depend on two elements: the evolution of the cashew market and the increased Ivorian production resulting from the project. Both are described below.<sup>57</sup>

6. In the baseline scenario, the revenue from the dedicated export levy charged on raw cashew nuts is projected to exceed the sum of the loan repayment and the subsidy paid to processors: there is no year when cash flow available for debt service is less than the projections of cash flow from the 20 CFA/kg. The key assumptions utilized for the baseline scenario are the following:

- a) Cashew production is expected to increase annually by 10 percent (this is less than the average annual growth rate of the decade up to 2015, which was 13.5 percent) until total production reaches 1.05 million tons in year 2022, at which point production is assumed to remain constant at that level;
- b) Of the 30 CFA/kg export levy on raw cashew nut (RCN) (US\$48 per ton, approximately 4 percent of average export value in 2017), the simulated cash flows only take into consideration 20 CFA/kg in the first seven years (until 2022), which are earmarked for IBRD debt service, per the loan covenants. From 2022 onwards, the full 30 CFA/kg are assumed to be available for IBRD repayment because the subsidy is reduced (the cash flow simulations assume that the freed-up cash flow will be available for IBRD debt service to ensure compliance with the Minimum Ratio Covenant of the IBRD loan);
- c) The processing subsidy, which currently stands at 400 CFA/kg of cashew kernels locally processed, will be reduced to 300 CFA/kg after three years, then to 200 CFA/kg after five years, and ended after seven years, as this is currently the date by which private investors in the processing sector are projected to have established commercially viable operations;
- d) The loan will be denominated in EUR, with 30-year maturity and 4.5-year grace period, annuity-style principal repayment, and interest rate of 4 percent.<sup>58</sup>

<sup>56</sup> In this regard, the "optimistic" scenario in the cash-flow stress tests detailed below is optimistic about private-sector investments in domestic processing, although these increases in domestic processing reduce debt-service cash flows (by reducing the income from the export levy on raw cashew exports).

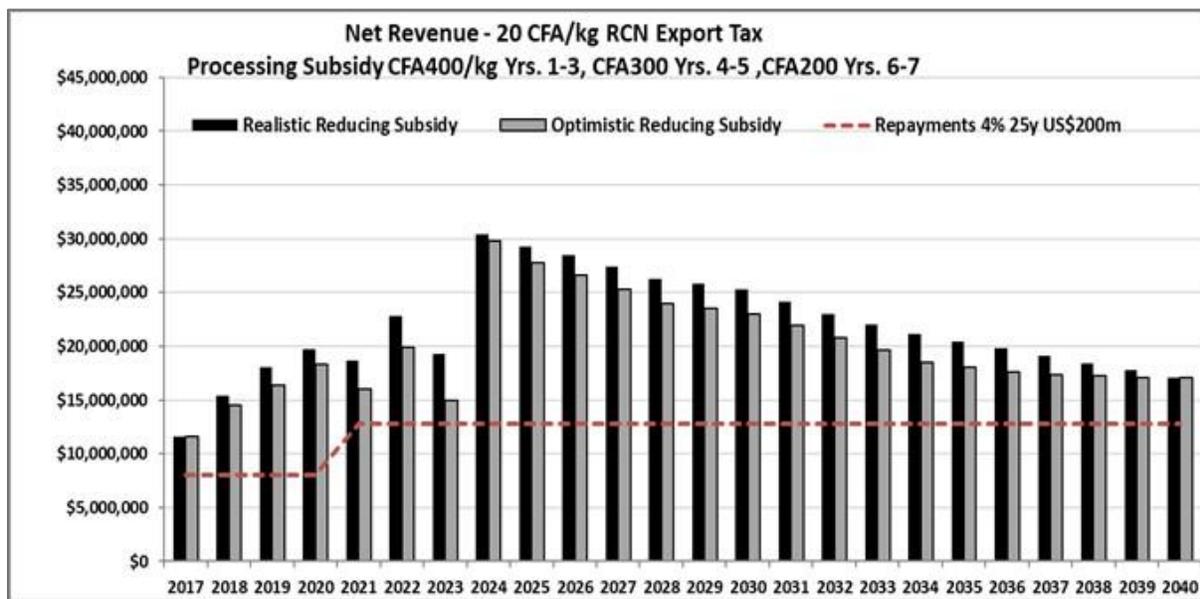
<sup>57</sup> The IBRD credit enhancement is designed to ensure that the proceeds from the cashew nut exports are sufficient for IBRD debt service; much of the focus of the structure is to ensure these cash flows are available to IBRD. Nevertheless, in a stress scenario, as foreseen in the Alternative Revenue Source Covenant, if cash flow is unavailable from the project, the borrower will still need to comply with debt service obligations using other sources, as the loan is not non-recourse (See Section IV below).

<sup>58</sup> This rate is an assumption used for the cash-flow projections rather than a contractual parameter. If the loan were disbursed immediately and converted to a fixed interest rate, the rate would be about [2.90] percent. If the interest rate were to increase before the loan was fully disbursed, the actual rate could also be higher.



7. Figure 16 shows, based on the assumed crop and processing projections for each scenario, net revenue compared to annual repayment of the IBRD enclave loan. In both processing scenarios in Figure 1, net revenue grows in the first four years as processing takes time to establish, whereas the crop and RCN exports are already increasing. In 2020, the subsidy decreases to 300 CFA/kg, increasing net revenue to CCA. Despite this effect, this revenue is projected to fall in 2021 as more processing factories come on line, with a similar dynamic at work in 2022 and 2023. By 2024, the subsidy is withdrawn entirely and net revenue increases further. Thereafter, revenue declines as RCN exports are diverted to domestic processing.

**Figure 16: Net revenues and loan repayment (realistic and optimistic processing scenarios)**



8. To examine the adequacy of revenue from the export levy on RCN to cover the IBRD enclave loan repayment, the following risks were modeled: a decline of RCN production growth in Côte d’Ivoire, and reduction of global demand for RCN. Figures 17 and 18 show stress scenarios combining these effects, outlined in greater detail below.

- a) **Production growth decline to 6 percent (Figure 17, left-hand bars).** This scenario modifies the baseline assumption as follows:
  - The annual growth rate of production is assumed to be 6 percent (compared to the baseline of 10 percent) until production reaches 1.05 million tons in 2024 (two years later than in the baseline);
  - The amount of the levy is left unchanged from the baseline scenario (first 20 CFA/kg allocated to IBRD debt service for the first seven years; thereafter, the full 30 CFA/kg);
  - The production subsidy is removed on the same schedule as in the baseline (two step declines over 7 years); and
  - The same debt service is assumed as in the baseline.



Under this stress scenario, there would be a revenue shortfall relative to debt service for the year 2021 of \$2.6 million. However, the CCA would have had excess revenue from the levy in earlier years (an excess of revenue of some \$14 million over debt service). While there is no loan covenant which would make CCA set aside these accumulated revenues, the Minimum Ratio Covenant would limit the payments which CCA could make during these excess cash flow early years. The CCA and Côte d'Ivoire would therefore need to identify to the satisfaction of IBRD either an alternative source of revenue to repay the loan or present a more rapid subsidy withdrawal schedule. Additionally, in the event of a major fall in the crop of Côte d'Ivoire in the early years of the loan, cashews prices worldwide would presumably rise, given the importance of the country in the global market, so that these cash flow projections may be conservative in not considering the price elasticity.

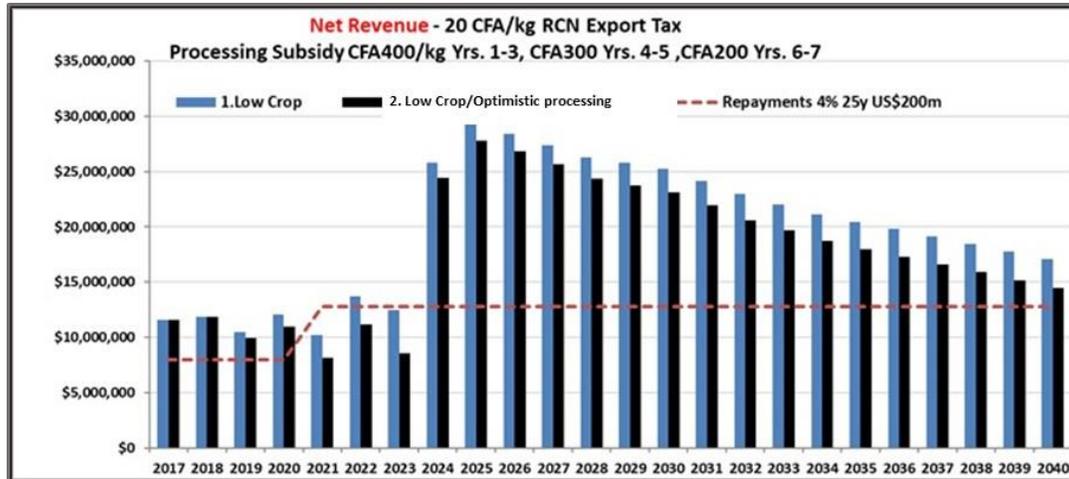
b) **Production growth decline to 6 percent and higher processing growth to “optimistic” scenario levels (Figure 2, right-hand bars).** This scenario builds upon the one outlined in section (a) above. The following are its main assumptions:

- Production grows annually at 6 percent until it reaches 1.05 million in 2024 (unchanged from (a) above);
- The amount of the levy available for IBRD debt service is left unchanged at 20 CFA/kg for the first seven years and increased to the full 30 CFA/kg thereafter (unchanged from (a) above);
- The production subsidy schedule is unchanged from (a) above; however, this scenario assumes a higher diversion of RCN from export into production from the subsidy attracting more producers, with the result that the excess cash flow over debt service (the difference between the 20 and 30 CFA/kg during the first seven years that is not paid out as subsidy) is lower than in scenario (a) above;
- The same debt service is assumed as in the baseline.

The main difference between this scenario and (a) is that the CCA would have lower excess cash flows over debt service. However, given the Minimum Ratio Covenant, in this case the CCA would have to either limit subsidy payments or find an alternative source of revenues to repay IBRD. In other words, this stress scenario would not develop through the first seven years, as the CCA would be in breach of one or more loan covenants. For illustration, in this scenario, there would be a levy revenue shortfall of US\$4.7 million in 2021, US\$1.6 million in 2022, and US\$4.3 million in 2023, between the 20 CFA/kg levy amount and debt service obligations. As the gap in revenue is less than the accumulated excess cash flows over debt service, the CCA would have had to take action to avoid a breach of IBRD loan covenants.



**Figure 17: Stress test scenarios – decline of RCN production growth**



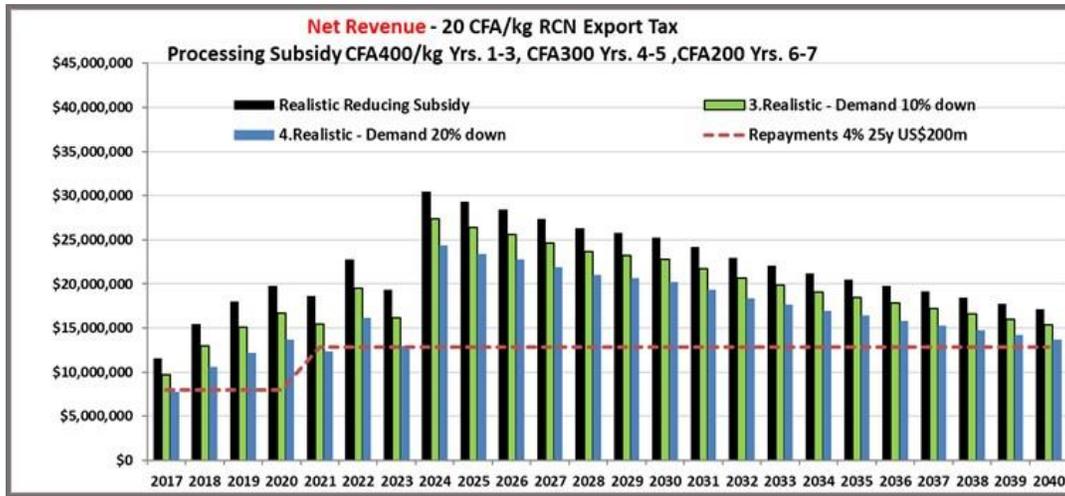
c) **A reduction in demand for RCN of 20 percent.** This scenario is based upon the following assumptions and illustrated in Figure 18 below:

- The annual growth rate of production is 10 percent, as in the baseline assumption (the main difference is that the price of RCN would fall due to falling global demand);
- The amount of the levy is left unchanged from the baseline;
- The schedule for the removal of the subsidy is unchanged;
- The same debt service is assumed as in the baseline.

The result of this scenario is not very different from that of the baseline because the levy on which IBRD debt service is currently fixed is based upon volume (CFA per kilo) and not on value. Since total production volume grows at the same rate as in the baseline, the financial results (in terms of cash available for IBRD debt service) would also remain unchanged. The risks to this scenario could come from pressure from growers to reduce the levy (as their income is squeezed) or a shift in production reducing exports. Nonetheless, a scenario of 20-percent lower global demand for RCN would not directly impact cash flow for IBRD debt service.



Figure 18: Stress test scenarios – reduction in demand for RCN



C. Rationale for Credit Enhancement Features of the IBRD Enclave Loan

9. The IBRD enclave loan security package, described in detail below, is designed to achieve two broad purposes: (i) provide liquidity to reduce the risk of non-accrual (which would trigger cross-defaults to the IDA portfolio); and (ii) provide mechanisms to address cash-flow deficiency risk with some anticipation. In both cases, the credit enhancement features are intended to provide a period of time for IBRD and the authorities to solve potential issues which could have a short-term negative impact on the cash flow. The credit enhancement features, however, do not reduce the risk of a structural change with medium to long-term negative impact on the cash flows.

10. **Reducing the Risk of Non-Accrual:** The Guarantee Account (as defined below in Section IV) functions as an 18-month debt-service reserve account, held in euros, which is intended to provide IBRD with a two-year window prior to declaring a non-accrual and, among other financial policies, cross-defaulting the IBRD and IDA portfolios in Côte d’Ivoire. The Guarantee Account is the lynchpin of the credit enhancement required by IBRD’s policies. Having the account in euros and located off-shore means that it serves as a cash collateral account which can be unconditionally called by IBRD to ensure continued service of its debt in cases where CCA as the borrower and Côte d’Ivoire as the guarantor cannot honor IBRD debt service obligations in a timely manner. This account provides a cushion of freely available cash flow to IBRD in case of volatility in the project’s underlying cash flows discussed in Section II above, designed to provide support during more extreme events than the stress scenarios discussed so far. A two-year period to address the underlying causes of debt-service difficulties is considered a reasonable compromise between the concerns and interests of the creditor and the lender, and has been used as a standard in prior IBRD enclave operations.

11. **Availability of Cash Flow for Debt Service:** As mentioned previously, the cash flow available for debt service may be impacted by government decisions and market outcomes. Two government decisions which can affect the cash flow are: (i) change in the amount of the levy which is ring-fenced for debt service or its collection procedure; and, (ii) the amount and schedule of the withdrawal of the subsidies for cashew transformation on-shore (in particular, if domestic political pressure leads to government not



phasing out or delaying the phase-out of the subsidy). There are four distinct means to address these risks in the project legal documentation.

- *Levy Review.* To the extent that any change in the overall levy amount (i.e. 30 CFA/kg) or in the portion of the levy reserved for IBRD debt service (i.e. 20 CFA/kg) may affect the ability of the Borrower (as defined below in Section IV) to meet its periodic IBRD enclave loan repayment obligations, they *must be discussed with IBRD* prior to the government enacting them.
- *Minimum Ratio Covenant.* The Repayment Account is required to have a debt service coverage ratio of 1.5, meaning that, in practice, every six months, at least 150 percent of debt service will need to have transited into the Repayment Account (as defined below in Section IV) dedicated to IBRD debt service. CCA and Côte d'Ivoire have the responsibility to ensure that any changes in their policies do not violate this contractual obligation.
- *Alternative Revenue Source Covenant.* If an event occurs that could reasonably be expected to result in the levy being insufficient to meet debt service, then CCA and Côte d'Ivoire have to identify to the satisfaction of IBRD an alternative source of revenue to satisfy the repayment obligations under the IBRD enclave loan. What this covenant intends is to leave policy flexibility to the authorities, while protecting IBRD by ensuring that an adequate level of resources is available in the aggregate for debt service.
- *General recourse to other CCA and Côte d'Ivoire resources.* As mentioned above, CCA has other sources of revenue which have not been earmarked for service of the IBRD enclave loan. This includes not only the remaining 10 CFA/kg portion of the levy that the borrower is free to use as it sees fit, but also any other generally available resources of CCA, as borrower, and Côte d'Ivoire, as guarantor. Indeed, as the loan is not offered on a non-recourse basis, the CCA, as borrower, and Côte d'Ivoire, as guarantor, will be obligated to use any other available sources of revenue to comply with the debt service obligations of the enclave loan *even in the event that the 20 CFA/kg portion of the levy allocated to debt service payment does not yield sufficient financial resources to do so.*

12. These credit principles, which support IBRD's enclave policy, are detailed in the legal agreements which will be entered into by IBRD, the CCA as borrower, and the Republic of Côte d'Ivoire as guarantor of the loan. They are described in the following section, which summarizes the loan term sheet. To allow for the required flexibility in the implementation thereof, the project team is authorized to make minor changes in the below terms and conditions provided that, in the judgement of CROVP, they do not materially impact the credit risk of the IBRD enclave loan.

#### **D. Credit Enhancement Features of the Enclave Loan**

13. For the credit enhancement to be effective, and to address the downside scenarios envisaged in the stress tests outlined above, the following loan covenants and agreements will be included in the project documentation to achieve the required credit enhancement for this operation. Therefore, the IBRD enclave loan to the Conseil du Coton et de l'Anacarde (the "Borrower") and guaranteed by the Republic of Côte d'Ivoire (the "Guarantor") will include the following terms and conditions for credit enhancement, to meet the requirements of Bank Policy on the provision of IBRD enclave loans.



Guarantee  
Account

1. The Borrower will need to maintain a EUR amount equal to 18 months of peak anticipated debt service payments (as defined in the Loan Agreement), as calculated by IBRD, in a dedicated reserve account (the “Guarantee Account”) to be opened under its name at the seat of a highly creditworthy commercial bank of good repute located in a major international financial center satisfactory to IBRD in favor of IBRD throughout the life of the loan (the “Guarantee Account Bank”); it being understood that the debt service payments taken into account for the purpose of calculating the amount that needs to be funded on the Guarantee Account shall not include principal or interest repayments for Loan amounts that are not disbursed or requested by the Borrower to be disbursed at such time. For the avoidance of doubt, the amounts on deposit in the Guarantee Account, including interest paid by such Guarantee Account Bank, if any, are the property of the Borrower. The Guarantee Account Bank selected needs to be deemed appropriate to IBRD for such a role.
2. The amount required to be held in the Guarantee Account will depend on the anticipated debt service payments, which will vary depending on (i) the Borrower’s choices of the various financial product options IBRD offers with respect to pricing, final maturity and amortization (including grace period); (ii) the final amount of the loan; (iii) the path of interest rates, should a floating rate option be chosen; (iv) the total amounts disbursed under the Loan. The repayment schedule, loan currency and interest rate of the loan should be set prudently so that the choice would not result in excessive liquidity management risks affecting the Project.
3. The specific amount required to be semi-annually on deposit in the Guarantee Account may increase or decrease during the term of the loan, based upon IBRD’s calculation. Every six months, IBRD will send a written calculation notifying the Borrower<sup>59</sup> of such required amount, which will be sent concurrently with the semi-annual repayment invoices provided by IBRD to the Borrower. In the event that the amount on deposit in the Guarantee Account is less than the required amount at any six-month notification, then the Borrower, or the Guarantor in the event that the Borrower is unable to do so, will be responsible to transfer the difference into the Guarantee Account within thirty (30) days of receipt thereof. In the event that the amount on deposit in the Guarantee Account is greater than the required amount at any six-month notification, then the Borrower may request that IBRD instructs the Guarantee Account Bank to transfer the surplus to the Repayment Account (as defined below) provided that, at the time of any such transfer, the amount deposited in the Guarantee Account, after such

<sup>59</sup> The Loan Agreement will provide that all invoices, notices, and other communications to be sent by IBRD to the Borrower as per the terms and conditions of this document will be sent concurrently to the Guarantor.



transfer is made, shall not be less than the required amount indicated in IBRD's latest six-month notification.

4. The Borrower will be entitled to draw on the Guarantee Account to make the final debt service payment(s) prior to final maturity of the IBRD Enclave loan, as long as there is an outstanding balance in the Guarantee Account to cover these final debt service payment(s). At the Borrower's request, at any time after the IBRD Enclave loan has been repaid in full, IBRD will notify the Guarantee Account Bank that IBRD has no further interest in the Guarantee Account and will instruct the Guarantee Account Bank to pay the balance of the Guarantee Account into any account specified by the Borrower.
  5. As an Additional Condition of Effectiveness for the IBRD Enclave loan, the Borrower (as the account beneficiary and owner), the Guarantee Account Bank (as the account bank), and IBRD (as the lender) shall enter into an agreement (the "Guarantee Account Security Agreement"), granting IBRD certain rights and interests in the Guarantee Account. This will include the right for IBRD to unilaterally instruct the Guarantee Account Bank to transfer funds from the Guarantee Account to pay overdue debt service amounts if the Borrower or the Guarantor fail to pay debt service under the IBRD Enclave loan (whether principal, interest or other charges) when required. In addition, the Guarantee Account Security Agreement will provide that the Guarantee Account Bank will deliver annual account statements for the Guarantee Account to IBRD and the Borrower, and IBRD and the Borrower will also have the right at any time to access the Guarantee Account Bank's records for the Guarantee Account, including a complete history of transactions and related documents.
  6. If the Borrower, or the Guarantor in the event that the Borrower is unable do so, fails to make any payments of debt service under the IBRD Enclave loan when due, then IBRD will first send a written reminder to the Borrower (with a copy copies to the Guarantor) within no more than five (5) calendar days after the applicable due date of the original debt service payment. The Borrower will have an additional ten (10) additional calendar days (the expiration of such period, which in any case shall be no less than fifteen (15) days after the original due date, the "Consultation Deadline") to consult IBRD, remedy the elements which prevented prompt payment, and make the payment in full of the outstanding amount. In its reminder notice to the Borrower, IBRD will clearly identify the Consultation Deadline as well as the final deadline date described in paragraph 8 below. IBRD will also send a second written reminder if the payment in full of the outstanding amount has not been made by the ninth (9<sup>th</sup>) calendar day following the original due date.
- Guarantee Account Security Agreement
- Consultation Deadline and Drawing Upon the Guarantee Account



7. If the Borrower, or the Guarantor in the event that the Borrower is unable do so, fails to make payment in full of any outstanding debt service amounts by the Consultation Deadline, then IBRD may (a) notify the Borrower and the Guarantor of the occurrence of the Borrower's breach of a payment obligation, as described in Section 7.02(a) of the General Conditions of Financing of the IBRD ("Failure to Comply with a Payment Obligation"), and (b) instruct the Guarantee Account Bank to immediately transfer funds from the Guarantee Account to an account specified by IBRD to satisfy such outstanding debt service amounts. No further action or consent of the Borrower, the Guarantor or any other party shall be required in order for IBRD to provide the foregoing instruction or for the Guarantee Account Bank to comply with any such instruction. Once the transfer of funds to IBRD has been completed, IBRD, the Borrower and the Guarantor will enter into discussions at the highest level to avoid any subsequent failures to meet a payment obligation under the IBRD Enclave loan.
8. If IBRD shall have delivered the written instruction described in paragraph 7 above and nevertheless not received payment in full of all outstanding debt service amounts under the IBRD Enclave loan by the date that is fifteen (15) calendar days after the Consultation Deadline for any reason ("Final Deadline"), then IBRD may declare a default ("Default") under Section 7.02(a) of IBRD's General Conditions, which are incorporated by reference in the Loan Agreement.<sup>60</sup> If such payment was not received by the fourth (4th) calendar day following the Consultation Deadline, the Borrower, the Bank, and the Guarantor shall immediately hold high-level discussions in close coordination with the Guarantee Account Bank with a view to resolving any outstanding issues and making sure that full payment of all outstanding debt service amounts be received by the Bank at the latest by the Final Deadline. In the event an amount at least equivalent to the outstanding debt service amounts shows on the balance of the Guarantee Account, the Bank undertakes to use its best efforts when deciding whether to declare a default under Section 7.02(a) of the General Conditions to take into account possible difficulties from a technical nature which are not attributable to the Borrower or the Guarantor, and have affected the execution by the Guarantee Account Bank of the written instruction described in paragraph 7 above, thereby preventing the payment in full of all outstanding debt service amounts from taking place by the Final Deadline. Notwithstanding anything described above, no provision

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<sup>60</sup> The Loan Agreement will provide that, notwithstanding the provisions described in these paragraphs 6, 7 and 8, no provision in the enclave schedule to the Loan Agreement shall be deemed to waive or limit IBRD's right to declare a default or exercise any remedies with respect to the IBRD Enclave loan in accordance with IBRD's General Conditions. The exact number of days for each step described in these three foregoing paragraphs will be subject to discussion with the Borrower and the Guarantor. The project team is authorized to make changes in the number of days that, in the judgement of the CROVP, do not materially impact the credit risk of the IBRD Enclave loan.



thereof shall be deemed to waive or limit the IBRD's rights or remedies with respect to the Loan in accordance with the General Conditions.

Replenishment  
of the Guarantee  
Account

9. If the Guarantee Account is ever drawn upon or otherwise insufficient, for example due to a failure by the Borrower or the Guarantor to pay debt service, then the Borrower, or the Guarantor in the event that the Borrower is unable to do so, will have the obligation to replenish the Guarantee Account.
10. If there is a failure by the Borrower or the Guarantor to replenish the Guarantee Account<sup>61</sup>, then IBRD shall have the unilateral right to instruct the Repayment Account Bank (as defined below) which houses the Repayment Account (as defined below) to use the funds on deposit in the Repayment Account to replenish the Guarantee Account up to the required amount. Such transfers shall continue until the Guarantee Account has been fully replenished to the required level. No further action or consent of the Borrower, the Guarantor, or any party shall be required in order for IBRD to provide the foregoing instruction or for the Repayment Account Bank to comply with any such instruction.

Repayment  
Account

11. As an Additional Condition of Effectiveness for the IBRD Enclave loan, the Borrower, with the assistance of the Guarantor if need be, shall open and maintain an account (the "Repayment Account") with a designated financial institution agreeable to IBRD and the Borrower (the "Repayment Account Bank") with the sole purpose of depositing the 20 CFA/kg portion from a levy on the export of raw cashew nuts (the "Levy") enacted by the Guarantor and collected by the Borrower that will be used to pay debt service for the IBRD Enclave loan. The Repayment Account will be denominated in FCFA and will receive on the fifteenth of each calendar month the FCFA 20 / kg portion of the Levy collected by the Borrower during the previous month. For the avoidance of doubt, the amounts on deposit in the Repayment Account are the property of the Borrower.
12. The Borrower will maintain a written record showing how the monthly amounts transferred to the Repayment Account are calculated and that, for this purpose, will record, as a minimum, the monthly quantities exported and the corresponding amounts collected. The Borrower will provide a copy of this record to IBRD semi-annually and at any other time promptly upon IBRD's request.
13. The Borrower will cause the Repayment Account Bank to provide IBRD with periodic statements of account for the Repayment Account, on a monthly basis as well as at any time upon IBRD's request, indicating the amount deposited in the Repayment Account and a description of the

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<sup>61</sup> The exact time period after which a failure by the Borrower or the Guarantor to replenish the Guarantee Account will be deemed to have happened will be determined in the Loan Agreement.



transfers to and from the Repayment Account during the applicable period. In addition, IBRD shall have the right, at any time, to consult the specific section of the Repayment Account Bank accounting records relating to the Repayment Account, including a complete history of the previous transactions and related documents.

Withdrawals from the Repayment Account

14. Upon receipt of each semi-annual IBRD invoice for the payment of debt service, on the basis of instructions from the Borrower or the Guarantor, the Repayment Account Bank will convert the necessary FCFA amounts on deposit in the Repayment Account into EUR and make payments directly in EUR to the account specified by IBRD.
15. IBRD shall have the right to unilaterally instruct the Repayment Account Bank to use the funds on deposit in the Repayment Account to replenish the Guarantee Account at any time as described in paragraph 10 above.
16. Upon request of the Borrower, the Guarantor may request IBRD to instruct the Repayment Account Bank to make transfers from the Repayment Account at any time; provided, however, that the Guarantor certifies in writing to IBRD that, at the time of any such transfer: (a) the Borrower is in compliance with the Minimum Ratio (as defined below) and all other obligations under the Loan Agreement; (b) the amount deposited in the Repayment Account, after such transfer is made, shall not be less than the amount required to meet the expected repayment obligations of the Loan for the succeeding six (6) month period, and (c) the Guarantee Account is funded to the required amount.

Repayment Account Agreement

17. As an Additional Condition of Effectiveness for the IBRD Enclave loan, the Borrower (as the account beneficiary and owner), the Repayment Account Bank (as the account bank), the Guarantor, and IBRD (as the lender) shall enter into an agreement (the “Repayment Account Agreement”) which will set forth the provisions included in paragraphs 10 to 16.<sup>62</sup> Among others, this will include the right for IBRD to unilaterally instruct the Repayment Account Bank to transfer funds from the Repayment Account Bank to replenish the Guarantee Account up to the required amount. In addition, the Repayment Account Agreement will provide that the Repayment Account Bank will deliver monthly account statements for the Repayment Account to IBRD, and IBRD will also have the right at any time to access the Repayment Account Bank’s records for the Repayment Account, including a complete history of transactions and related documents. Furthermore, the Repayment Account Agreement should also cover the conversion of FCFA into EUR for all necessary purposes (debt service and/or Guarantee Account

<sup>62</sup> While the preferred approach is to enter into such Repayment Account Agreement, this requirement may be deemed fulfilled by the project team if the Repayment Account Bank provides satisfactory assurances in another form to IBRD with respect to the Repayment Account provisions included in paragraphs 10 to 17.



replenishment) as well as the modalities of withdrawals from the Repayment Account by the Borrower<sup>63</sup>.

Conditions to Effectiveness for Security Package

18. In addition to the standard conditions to effectiveness for an IBRD loan, effectiveness of this IBRD Enclave loan will be subject to the following conditions specific to the enclave, in each case to IBRD's satisfaction:

- Establishment and initial funding of the Guarantee Account with respect to the first anticipated loan disbursement tranche;
- Execution of the Guarantee Account Security Agreement, as described in paragraph 5 above and IBRD has received legal opinions of counsel acceptable to IBRD, evidencing the validity and enforceability of its rights set forth thereunder;
- Establishment of the Repayment Account;
- Execution of the Repayment Account Agreement, as described in paragraph 17 above and IBRD has received legal opinions of counsel acceptable to IBRD, evidencing the validity and enforceability of its rights set forth thereunder;
- Delivery of a letter or other satisfactory assurance<sup>64</sup> from the BCEAO (which may be addressed to the Borrower or to the Guarantor but upon which IBRD can rely) confirming that the BCEAO has no objections to the opening of the Guarantee Account in EUR with the Guarantee Account Bank in accordance with the applicable rules and regulations of the BCEAO.

Additional Covenants

19. In addition to the requirements described above, the following covenants will be included in the Loan Agreement, to enhance the security package:

- Levy Review. The portion of the Levy allocated for debt service has been set at 20 FCFA/kg and the Levy shall remain effective for the duration of the IBRD Enclave loan. Prior to any modification of the Levy that may affect the ability of the Borrower to meet its periodic IBRD Enclave loan repayment obligations from funds held in the Repayment Account, including, but not limited to, any change in the collection procedure or any reduction in the Levy, the Borrower and the Guarantor shall consult with IBRD and implement alternative credit enhancement measures for the Project satisfactory to IBRD.
- Minimum Ratio covenant. The Borrower must maintain a minimum debt service coverage ratio throughout the life of the loan. Specifically, except as IBRD shall otherwise agree, the Borrower shall not permit the ratio of (i) the total amount that has transited into the

<sup>63</sup> This does not mean that the commercial bank will provide transfer and convertibility coverage, just that it will process the transactions as per the current convertibility regime organized by the BCEAO and guaranteed by the Bank of France.

<sup>64</sup> We have duly taken note of the no-objection letter dated December 4, 2017 from the BCEAO Governor to the Minister of Finance of Côte d'Ivoire in connection with the opening of the Guarantee Account and will take it into consideration in this respect.



Repayment Account during the period of the calendar year immediately preceding the date of any calculation to (ii) its projected maximum debt service requirements under the IBRD Enclave loan for the immediately succeeding calendar year, to be less than 1.5 (the “Minimum Ratio”).

IBRD, on the basis of the statements of account of the Repayment Account provided monthly by the Repayment Account Bank, shall calculate the Minimum Ratio annually year and shall promptly notify the Borrower in the event that the Minimum Ratio is less than one and one-half (1.5) at any time. Along with the semi-annual Bank invoice for the payment of debt service, the Bank shall also make its best efforts to communicate to the Borrower an intermediate projection of the Minimum Ratio.

- Alternative Revenue Source. In the event that (i) the Minimum Ratio falls below one and one-half (1.5) at the time it is calculated by IBRD, or (ii) any other event occurs that could reasonably be expected to result in the amounts deposited by raw cashew exporters in the Repayment Account to be insufficient to meet the expected repayment obligations for the IBRD Enclave loan, then the Borrower, the Guarantor, and the Bank shall undertake high-level discussions in order for the Borrower to identify to the satisfaction of IBRD an alternative source of revenue that may be redirected to the Repayment Account in order to satisfy the repayment obligations under the IBRD Enclave loan.

- Bank’s Remedies 20. Under IBRD’s policies, all sanctions applicable to IBRD loans in default, including cross default provisions with the IDA portfolio, will be applicable in the event of non-payment of the IBRD Enclave loan. However, as an Enclave loan some of the time periods will vary. Under this structure, for example, the loan will only be in non-accrual status after two years following an initial failure to pay, due to the existence of the Guarantee Account that can be used to pay IBRD, rather than six months as in the case of a typical IBRD loan.



## ANNEX 7: ASSESSMENT OF THE NET CARBON BALANCE

COUNTRY: CÔTE D'IVOIRE  
Cashew Value-Chain Competitiveness Project

## A. Assessment of net carbon balance due to land use change and agriculture

1. **Assumptions.** The GHG Accounting is performed with the tool EX-ACT (Ex-ante Carbon Appraisal tool) and focuses on activities in Component 2 “Productivity Enhancement and Improved Access to RCN Market” and Component 3 “Support to Private Investment in Post-Harvest and Processing Infrastructure”. Côte d’Ivoire has a tropical moist climate and low activity clay soils. The EX-ACT modules used for the carbon balance analysis included land use change and agriculture, with a project implementation phase of 5 years and capitalization phase of 15 years. Table 23 summarizes the results.

2. Under Component 2, the project targets 225,000 cashew producers with approximately 675,000 hectares of land where the project will introduce GAP, training in improved establishment techniques, planting densities, ideal inter-cropping combinations, maintenance and improvement of cashew orchards, pruning plans, harvesting, post-harvest storage and quality control, as well as introduction of improved planting material and replacement of old unproductive trees. It is assumed that 95 percent of this agricultural area is under cashew perennials and remains under perennials. On approximately 5 percent of this area, the project introduces improved cashew planting material on approximately, 32,500 ha. It is assumed that this area is currently under “other land”, due to lack of detailed information about current land use. These activities will improve existing carbon pools. In addition, the project produces 2.6 million seedlings on 25,000 ha land and 400,000 seedlings for grafting planted in a 4,000-ha land. The project will finance the rehabilitation of 300 kilometers and repaving of 200 kilometers of feeder roads.

3. Under Component 3, the project provides 190,000 tons of storage space on approximately 200 ha of land, as well as 4 cashew processing platforms on 60 ha of land (see assumptions in Table 22).

**Table 22: project activities in initial, without and with project scenario**

Activities	Current/ without project	With project
Project area remaining under perennial systems	642,500 ha	642,500 ha
Introduction of improved planting material on previously “other land”	0	32,500 ha
Production of cashew seedlings on previously “other land”	0	29,000 ha
Rehabilitation of rural feeder roads <sup>65</sup>	0	500 km (2.5 million m <sup>2</sup> )
Storage space and cashew processing platforms	0	780,000 m <sup>2</sup> concrete 1,820,000 m <sup>2</sup> metal

4. **Results of carbon balance analysis.** The planned project intervention will result in a net greenhouse gas (GHG) sink of -10,211,361 tons of CO<sub>2</sub> equivalent (tCO<sub>2</sub>eq), corresponding to -510,568

<sup>65</sup> Rural roads will be low volume gravel roads. To be conservative, their impact on the GHG balance will be approximated by assuming they are asphalt roads for medium traffic.



tCO<sub>2</sub>e per year and 0,72 tCO<sub>2</sub>eq per hectare per year. The sink results largely from replacement of old productive cashew trees with new ones. The increase in carbon sequestration will lead to other co-benefits, including reduced soil erosion, and enhanced agro-ecosystem resilience.

**Table 23: Results of EX-ACT analysis**

Gross fluxes in the business as usual and project scenario, as well as net carbon balance; All GHG in tCO<sub>2</sub>eq

ACTIVITIES:	Business as usual Gross fluxes	Project scenario Gross fluxes	Net carbon balance
<b>Land use changes/Agriculture</b>			
Planting new Perennials	-8,995,000	-19,715,475	-10,720,475
<b>Inputs &amp; Investment</b>			
Rural roads, agricultural buildings	0	1,095,414	1,095,414
<b>RESULTS:</b>			
<b>Total</b>	-8,995,000	-19,206,361	<b>-10,211,361</b>
<b>Per hectare</b>	-13	-27	-15
<b>Per hectare per year</b>	-0.6	-1.4	-0.7

## B. Assessment of net carbon balance due to the reduction in the shipment of RCN to Vietnam for processing

5. **Basis of calculation.** (i) The project will directly result in a net increase in processing of 105,000 tons of RCN per annum starting Year 5; (ii) RCN would be shipped to Vietnam for processing without this development as is now; (iii) The lifetime of those processing facilities will be 20 years; (iv) Each container (teu) of RCN cargo weighs 18 metric tons; (v) A typical voyage is Yamoussoukro to Ho Chi Minh City (HCMH). This is estimated to be the shortest possible route as most cashews are grown north of Yamoussoukro and most Vietnamese cashew processing plants are north of HCMH port.

6. It is estimated that the proposed project will result in avoidance of GHG emissions otherwise associated to the need to transport (shipping) of about 2 million tons of RCN to Vietnam, over the lifetime of the project. Specifically, due to investments under Component 3 allocated for the construction of cashew processing platforms, RCN will be locally processed in Côte d'Ivoire, therefore reducing overall emissions associated with overseas transport (emissions reduction per container) and energy savings. Using the Global Seafreight Carbon Calculator<sup>66</sup>, these are estimated at 11,024,034 tons CO<sub>2</sub> equivalent. Table 24 summarizes the results of the analysis.

**Table 24: Results of Global Seafreight Carbon Calculator**

Emissions reduction per teu			
Volume 2,000,000 tons RCN			
Emissions	CO <sub>2</sub> kgs	Total kg	Total tons
Yamoussoukro to HCMH	2649	2780.54	309.048
<b>Energy saving carbon equivalent.</b>	Energy Consumption in GJ	CO <sub>2</sub> Equivalent in kg	Total tons lower of the two
Yamoussoukro to HCMH	31.56/34.69	2469/2677	600,363
<b>Total carbon equivalent emissions and energy savings – 909,411tons</b>			

<sup>66</sup> [https://www.kn-portal.com/seafreight/seafreight\\_overview/environment/global\\_seafreight\\_carbon\\_calculator/](https://www.kn-portal.com/seafreight/seafreight_overview/environment/global_seafreight_carbon_calculator/)



ANNEX 8: CÔTE D'IVOIRE MAP

COUNTRY: CÔTE D'IVOIRE  
Cashew Value-Chain Competitiveness Project

