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IDA/R2016-0254/1

November 3, 2016

Closing Date: Tuesday, November 22, 2016 at 6 p.m.

FROM: Vice President and Corporate Secretary

Mali - Mali Support to Agro-Industrial Competitiveness Project

Project Appraisal Document

Attached is the Project Appraisal Document regarding a proposed credit to Mali for the Mali Support to Agro-Industrial Competitiveness Project (IDA/R2016-0254), which is being processed on an absence-of-objection basis.

Distribution:

Executive Directors and Alternates
President
Bank Group Senior Management
Vice Presidents, Bank, IFC and MIGA
Directors and Department Heads, Bank, IFC and MIGA

Document of
The World Bank

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Report No: PAD1886

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 21.50 MILLION

(US$30.00 MILLION EQUIVALENT)

TO THE

REPUBLIC OF MALI

FOR A

MALI SUPPORT TO AGRO-INDUSTRIAL COMPETITIVENESS PROJECT

November 1, 2016

Trade and Competitiveness Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective September 30, 2016)

Currency Unit	=	C.F.A. Francs B.C.E.A.O (XOF)
XOF 587.486	=	US$1
SDR 0.716	=	US$1

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

2SCALE	Toward Sustainable Clusters in Agribusiness through Learning in Entrepreneurship
ACDP	Agricultural Competitiveness and Diversification Project
AfDB	African Development Bank
AFIRMA	Project to Support Inclusive Rural Financing in Mali (*Projet d'Appui au Financement Inclusif Rural du Mali*)
APBEF	Professional Association of Banks and Financial Institutions (*Association Professionnelle des Banques et Etablissements Financiers du Mali*)
API-Mali	Mali Investment Promotion Agency (*Agence pour la Promotion des Investissements au Mali*)
ATPPP	Agricultural Trading and Processing Promotion Pilot Project
AWP	Annual Work Plan
AWPB	Annual Work Plan and Budget
BDS	Business Development Service
CMDT	Malian Company for Textile Development (*Compagnie Malienne pour le Développement du Textile*)
CNRA	National Committee for Agricultural Research
CPF	Country Partnership Framework
DA	Designated Account
DFM	Directorate of Finance and Equipment (*Direction des Finances et du Matériel*)
DNACPN	National Directorate for the Control of Pollution and Nuisances *(Direction Nationale pour le Controle des Pollutions et Nuisances)*
DNGR	National Directorate for Rural Engineering (*Direction Nationale du Génie Rural*)
DNI	National Directorate for Industry (*Direction Nationale de l'Industrie*)
DNPIA	National Directorate for Animal Products and Industries (*Direction Nationale des Produits et des Industries Animales*)
DNR	National Directorate for Roads (*Direction Nationale des Routes*),
DNSV	National Directorate for Veterinary Services (*Direction Nationale des Services Vétérinaires*)
DRACPN	Regional Directorate for the Control of Pollution and Nuisances (*Direction Régionale de l'Assainissement et du Contrôle des pollutions et des*

	Nuisances)
ECOWAS	Economic Community of West African States
ERR	Economic Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
FAPP	Fostering Agricultural Productivity Project in Mali
FARM	Agriculture and Rural Financing in Mali project (Canada)
FBS	Selection under a Fixed Budget
FDI	Foreign Direct Investment
FEBEVIM	National Livestock-Meat Value Chain Inter-professional Federation of Mali (*Fédération Nationale Groupement Interprofessionnel de la filière Bétail-Viande*)
FIFAM	Poultry Sector Stakeholders Federation of Mali (*Fédération des Intervenants de la Filière Avicole au Mali*)
FM	Financial Management
FNAA	National Fund to Support Agriculture (*Fonds National d'Appui à l'Agriculture*)
FENALAIT	National Milk Producers Federation of Mali (*Fédération nationale des producteurs laitiers du Mali*),
FENAPHAB	National Oil Mill and Cattle Feed Federation of Mali (*Fédération Nationale des Producteurs d'Huile et d'Aliment Bétails au Mali*)
GDP	Gross Domestic Product
GoM	Government of Mali
GPN	General Procurement Notice
GRS	Grievance Redress Service
IA	Implementing Agency
IC	Institutional Contractor
IC3	Mali Investment Climate Program 3
ICB	International Competitive Bidding
ICR	Implementation Completion and Results Report
ICT	Information and Communication Technology
IEG	Independent Evaluation Group
IFC	International Finance Corporation
IFDC	International Fertilizer Development Center
IFM	Mango Value Chain Inter-professional Organization (*Interprofession de la Filière Mangue au Mali*)
IFR	Interim Financial Report
IMF	International Monetary Fund
IP	Implementing Partner
IPM	Integrated Pest Management
IPMP	Integrated Pest Management Plan
IRR	Internal Rate of Return
LCS	Least-Cost Selection
M&E	Monitoring and Evaluation

MEF	Ministry of Economy and Finance
MoA	Ministry of Agriculture
MoID	Ministry of Industrial Development
MoL	Ministry of Livestock
MoTRADE	Ministry of Trade
MoU	Memorandum of Understanding
NARP	National Agricultural Research Project
NCB	National Competitive Bidding
NGO	Nongovernmental Organizations
NPV	Net Present Value
OHADA	Organisation for the Harmonization of Business Law in Africa
OPI	Industrial Employers Organization (*Organisation Patronale des Industriels*)
OSS	One-Stop Shop
PACEPEP	Program to Support Economic Growth and Employment Promotion through the Private Sector in Mali (*Programme d'Appui à la Croissance Economique et Promotion de l'Emploi par le secteur privé au Mali*) (Denmark)
PAD	Project Appraisal Document
PAGAM/GFP II	Second Government Action Plan for the Improvement and Modernization of Public Financial Management (*Plan d'action gouvernemental pour l'amélioration et la modernisation de la gestion des finances publiques*)
PAP	Persons Affected by the Project
PCU	Project Coordination Unit
PDO	Project Development Objective
PEFA	Public Expenditure and Financial Accountability
PFM	Public Financial Management
PIM	Project Implementation Manual
PP	Procurement Plan
PRAPS	Regional Sahel Pastoralism Support Project *(Projet Régional d'Appui au Pastoralisme au Sahel)*
PRESAN-Kl	Project to Improve Food and Nutritional Security in Koulikoro Region (*Projet de Renforcement de la Sécurité Alimentaire et Nutritionnelle dans la Région de Koulikoro*)
PROCEJ	Skills Development and Youth Employment Project (*Projet de Développement des Compétences et Emploi des Jeunes*)
QBS	Quality-Based Selection
QCBS	Quality-and Cost-Based Selection
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
SACP	Mali Support to Agro-Industrial Competitiveness Project (French acronym PACAM)
SACPN	Service Sanitation and Control of Pollution and Nuisances (*Service de l'Assainissement et du Contrôle des pollutions et des Nuisances*)
SC	Steering Committee
SIIP	Sahel Irrigation Initiative Project
SOE	Statement of Expenditure
SSS	Single-Source Selection

TA	Technical Assistance
ToR	Terms of Reference
TTL	Task Team Leader
UN	United Nations
USAID	United States Agency for International Development
WAAPP	West African Agricultural Productivity Program
WAEMU	West African Economic and Monetary Union
WATIH	West Africa Trade and Investment Hub

Regional Vice President:	Makhtar Diop
Country Director:	Paul Noumba Um
Senior Global Practice Directors:	Anabel Gonzalez, Juergen Voegele, Pierre Guislain
Practice Managers:	Rashmi Shankar, Simeon K. Ehui, Nicolas Peltier
Task Team Leaders:	Alexandre Laure, Remileku R. Cole, Cheick Diallo

REPUBLIC OF MALI
Mali Support to Agro-Industrial Competitiveness Project (P151449)

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PAD DATA SHEET

REPUBLIC OF MALI

Mali Support to Agro-Industrial Competitiveness Project (P151449)

PROJECT APPRAISAL DOCUMENT

AFRICA

Report No.: PAD1886

Basic Information			
Project ID P151449	EA Category B - Partial Assessment	Team Leader(s) Alexandre Laure, Remileku Cole, Cheick Diallo	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [X]		
	Financial Intermediaries [ ]		
	Series of Projects [ ]		
Project Implementation Start Date 22-November-2016	Project Implementation End Date 31-July-2022		
Expected Effectiveness Date 01-March-2017	Expected Closing Date 31-July-2022		
Joint IFC Yes	Joint Level Complementary or interdependent project requiring active coordination		
Practice Managers/Managers	Senior Global Practice Directors	Country Director	Regional Vice President
Rashmi Shankar, Simeon K. Ehui, Nicolas Peltier	Anabel Gonzalez, Juergen Voegele, Pierre Guislain	Paul Noumba Um	Makhtar Diop

Borrower: Ministry of Economy and Finance, Republic of Mali			
Responsible Agency: Ministry of Agriculture			
Contact:	Paul Coulibaly	Title: Advisor	
Telephone No:	+223 76445980	Email:	dpaul_coulibaly@yahoo.fr
Contact:	Aly Kouriba	Title: CNRA Executive Secretary, National Coordinator of WAAPP-2A	
Telephone No:	+223 76488943	Email:	aly.kouriba@cnra-mali.org

Project Financing Data (US$, millions)					
[ ]	Loan	[ ]	IDA Grant	[ ]	Guarantee
[X]	Credit	[ ]	Grant	[ ]	Other

Total Project Cost:	30.00	Total Bank Financing:	30.00
Financing Gap:	0.00		

Financing Source	**Amount**
BORROWER/RECIPIENT	0.00
IDA	30.00
Total	30.00

Expected Disbursements (US$, millions)

Fiscal Year	2017	2018	2019	2020	2021	2022
Annual	3.25	5.00	15.00	5.00	1.50	0.25
Cumulative	3.25	8.25	23.25	28.25	29.75	30.00

Institutional Data

Practice Area (Lead)

Trade and Competitiveness

Contributing Practice Areas

Agriculture, Transport and ICT

Cross Cutting Topics

[ ] Climate Change

[X] Fragile, Conflict and Violence

[ ] Gender

[ ] Jobs

[ ] Public Private Partnership

Sectors/Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Industry and trade	General industry and trade sector	10		
Transportation	General transportation sector	30		
Agriculture, fishing, and forestry	Agricultural	15		

	extension and research			
Industry and trade	Agro-industry, marketing, and trade	35		
Agriculture, fishing, and forestry	Animal production	10		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this Project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Financial and private sector development	Infrastructure services for private sector development	10
Financial and private sector development	Micro, Small and Medium Enterprise support	25
Rural development	Rural non-farm income generation	20
Trade and integration	Trade facilitation and market access	25
Rural development	Rural services and infrastructure	20
Total		100

Proposed Development Objective(s)

The objective of the Project is to increase the processing of agricultural products for targeted value chains in the selected geographic area.

Components

Component Name	**Cost (US$, millions)**
Component 1: Expand Mango Processing and Investment Opportunities	5.50
Component 2: Improve Access to Mango Production Areas	10.80
Component 3: Foster Animal Feed Production	9.60
Component 4: Strengthen Project Implementation	4.10

Systematic Operations Risk- Rating Tool (SORT)

Risk Category	**Rating**
1. Political and Governance	High
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Moderate

6. Fiduciary	Substantial
7. Environment and Social	Substantial
8. Stakeholders	Moderate
9. Other	
OVERALL	Substantial

Compliance		
Policy		
Does the project depart from the CAS in content or in other significant respects?	Yes [ ]	No [X]
Does the project require any waivers of Bank policies?	Yes [ ]	No [X]
Have these been approved by Bank management?	Yes [ ]	No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ]	No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09	**X**	
Physical Cultural Resources OP/BP 4.11	**X**	
Indigenous Peoples OP/BP 4.10		**X**
Involuntary Resettlement OP/BP 4.12	**X**	
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	**Recurrent**	**Due Date**	**Frequency**
Steering Committee		01-April-2017	

Description of Covenant

The Recipient shall, not later than thirty (30) days after the Effective Date, establish, and thereafter, maintain at all times during the implementation of the Project, a steering committee (Steering Committee), with adequate resources, composition, terms of reference, functions and mandate, satisfactory to the Association, as set forth in the Project Implementation Manual for purposes of providing strategic direction and overseeing Project implementation.

<table>
<tr><td>Name</td><td>Recurrent</td><td>Due Date</td><td>Frequency</td></tr>
<tr><td>Focal Points</td><td></td><td>01-April-2017</td><td></td></tr>
<tr><td colspan="4">Description of Covenant</td></tr>
<tr><td colspan="4">The Recipient shall, not later than thirty (30) days after the Effective Date, appoint and thereafter, maintain at all times during the implementation of the Project, focal points (Focal Points), with adequate resources, terms of reference, functions and mandate, satisfactory to the Association, as set forth in the Project Implementation Manual for purposes of facilitating the implementation of multi-sectoral activities under the Project in cooperation with the Steering Committee and the Project Implementation Unit.</td></tr>
<tr><td>Name</td><td>Recurrent</td><td>Due Date</td><td>Frequency</td></tr>
<tr><td>Additional Fiduciary Support to the PCU</td><td></td><td>01-May-2017</td><td></td></tr>
<tr><td colspan="4">Description of Covenant</td></tr>
<tr><td colspan="4">The Recipient shall, within sixty (60) days of the Effective Date, recruit to the PCU, a procurement assistant, a principal accountant, and an assistant accountant, all in accordance with the provisions of Section III.C, Schedule 2 of the Financing Agreement.</td></tr>
<tr><td>Name</td><td>Recurrent</td><td>Due Date</td><td>Frequency</td></tr>
<tr><td>Update and maintain an accounting software</td><td></td><td>01-June-2017</td><td></td></tr>
<tr><td colspan="4">Description of Covenant</td></tr>
<tr><td colspan="4">The Recipient shall not later than ninety (90) days after the Effective Date, update and, thereafter, maintain an accounting software, acceptable to the Association.</td></tr>
<tr><td>Name</td><td>Recurrent</td><td>Due Date</td><td>Frequency</td></tr>
<tr><td>Project Implementation Manual (PIM)</td><td></td><td>01-June-2017</td><td></td></tr>
<tr><td colspan="4">Description of Covenant</td></tr>
<tr><td colspan="4">The Recipient shall not later than ninety (90) days after the Effective Date, prepare and adopt the Project Implementation Manual, in form and substance satisfactory to the Association, and, thereafter, carry out the Project (except Part C.2 of the Project) in accordance with the provisions of the Project Implementation Manual.</td></tr>
<tr><td>Name</td><td>Recurrent</td><td>Due Date</td><td>Frequency</td></tr>
<tr><td>Recruitment of an External Auditor</td><td></td><td>01-August-2017</td><td></td></tr>
<tr><td colspan="4">Description of Covenant</td></tr>
<tr><td colspan="4">The Recipient shall not later than one hundred fifty (150) days of the Effective Date, recruit an external auditor to audit the accounts of the Project, in accordance with the provisions of Section III.C, Schedule 2 of the Financing Agreement.</td></tr>
<tr><td>Name</td><td>Recurrent</td><td>Due Date</td><td>Frequency</td></tr>
<tr><td>Post WAAP-2A (Credit No. 5286-ML) Project Coordination Unit</td><td></td><td>31-December-2018</td><td></td></tr>
<tr><td colspan="4">Description of Covenant</td></tr>
<tr><td colspan="4">The Recipient shall maintain at all times during the implementation of the Project, the PCU as set forth in Section I.A.2(a), Schedule 2 of the Financing Agreement and regardless of the Closing Date of the WAAPP Project.</td></tr>
</table>

Conditions		
Source of funds	**Name**	**Type**
IDA	Subproject Manual	Disbursement

Description of Covenant

No withdrawal shall be made under Category (3) for Subprojects, unless the Recipient has prepared and adopted a Subproject Manual, in a manner acceptable to the Association.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Alexandre Hugo Laure	Team Leader (ADM Responsible)	Private Sector Specialist	Agro industries	GTCDR
Cheick Diallo	Team Leader	Transport Specialist	Rural roads and tracks and post-harvest facilities	GTIDR
Remileku R. Cole	Team Leader	Senior Agricultural Specialist	Agribusiness	GFADR
Mahamadou Bambo Sissoko	Procurement Specialist	Senior Procurement Specialist	Procurement	GGODR
Tahirou Kalam	Financial Management Specialist	Financial Management Specialist	Financial Management	GGODR
Armando Heilbron	Team Member	Senior Investment Promotion Officer	Investment promotion	GTCDR
Barbara Weber	Team Member	Senior Operations Officer	Operations support	GTCDR
Caroline Plançon	Team Member	Senior Land Policy Specialist	Rural land	GSURR
Eddie Spencer Keturakis	Peer Reviewer	Senior Agribusiness Specialist	Agribusiness	GTCDR
Fatoumata Diourte Berthe	Team Member	Team Assistant	Delivery	AFCW3
Irene Marguerite Nnomo Ayinda-Mah	Team Member	Program Assistant	Delivery	GTCDR
Mahamoud Magassouba	Team Member	Operations Officer	Investment climate	GTCDR
Malick Fall	Team Member	Investment Officer	Equity and debt financing	CAFML
Matthieu Jean Simon Gilquin	Team Member	Consultant	Value chains	GTCDR
Mahaman Sani	Team Member	Private Sector	SMEs support	GTCDR

		Specialist		
Melissa C. Landesz	Safeguards Specialist	Natural Resources Mgmt. Spec.	Environmental safeguards	GENDR
Roy Parizat	Peer Reviewer	Senior Economist	Value chain financing	GFADR
Gael Raballand	Peer Reviewer	Senior Public Sector Specialist	Rural roads	GGO28
Loraine Ronchi	Peer Reviewer	Lead Economist	Agribusiness, Productive alliances	GTCCS
Remi Kini	Peer Reviewer	Senior Agriculture Economist	Livestock, animal feed	GFA01
Robert Whyte	Peer Reviewer	Senior Private Sector Specialist	Investment promotion	GTCIC
Samuel Taffesse	Team Member	Senior Economist	Operations support	GFADR
Salamata Bal	Safeguards Specialist	Senior Social Development Specialist	Resettlement and social safeguards	GSURR
Syed Estem Dadul Islam	Team Member	Results Measurement Specialist	Results and monitoring framework	CBCD3
David Ivanovic	Peer Reviewer	Operations Officer	Value chains	GTCDR
Lina Sawaqed	Team Member	Consultant	Investment promotion	GTCDR
Jeremy Strauss	Team Member	Senior Private Sector Specialist	Agriculture contractor	GTCDR
Djeina Kalidi	Team Member	Consultant	PPD	GTCDR
Extended Team				
Name	**Title**	**Office Phone**	**Location**	
Maxime Traore	Agribusiness Expert	+223 66760860	Bamako	
Nouhou Diarra	Livestock Expert	+223 70745468	Bamako	
Willis Obura	Agriculture economist	+254 722831334	Nairobi	
Jean Claude Balcet	Agriculture economist	+1 202 615 8961	Washington, DC	
Philippe Luzietoso	Agriculture economist	+33 467 716 451	Montpellier	

Locations					
Country	**First Administrative Division**	**Location**	**Planned**	**Actual**	**Comments**
Mali	Bamako	Bamako		**X**	
Mali	Koulikoro	Koulikoro		**X**	
Mali	Yanfolila	Yanfolila		**X**	
Mali	Sikasso	Sikasso		**X**	

Consultants (Will be disclosed in the Monthly Operational Summary)	
Consultants Required?	Consultants will be required

I. STRATEGIC CONTEXT

A. Country Context

1. **Mali is one of the world's poorest countries with a per capita gross domestic product (GDP) of US$704.50 in 2014.** Life expectancy is low (57 years of age), malnutrition levels are high (28 percent of under-five children are stunted),[1] and most of the 17.1 million population is illiterate (69 percent of adults).[2] The economy of this landlocked country is predominantly rural and informal: 64 percent of the population resides in rural areas,[3] and 80 percent of the jobs are in the informal sector.[4]

2. **The incidence of poverty is high and predominantly rural.** Before the 2012 political and security crisis, Mali had succeeded in reducing poverty, mainly because of increased agricultural production and better functioning value chains. Between 2000 and 2010, the incidence of poverty declined from 60 percent to 51 percent. In 2010, half the population lived below the US$1.90/day poverty line and 90 percent of the poor lived in rural areas. Geographically, poverty is concentrated in the south, an area where the population density is highest. For example, the Sikasso area has the highest incidence of poverty (83.2 percent).[5] Since 2010, drought (2012) and conflict (2012–13) have compounded the misery, taken their toll, and as a result, poverty is likely to have worsened.

3. **The performance of the Malian economy remains largely dependent on the agricultural sector (40 percent of GDP).** From 1995, the economy grew by approximately 5.0 percent per year until 2010. However, in 2012, due to the global recession, the military coup, and the deteriorating security situation in the north, Mali's GDP growth slowed dramatically to 1.2 percent. After normalization of the conflict, economic growth resumed in 2013, first at a slow pace resulting from following adverse weather conditions that affected cereal production. In 2014, growth accelerated to 7.2 percent following sizable financial support received from development partners that enabled an upsurge in public investment, and the revival of private consumption.[6] The signing of a peace agreement in 2015 (Peace and Reconciliation Accord Resulting from the Algiers Process) strengthened hopes for peace and stability.

4. **Seizing Mali's long-term growth potential through economic transformation will require gradually expanding and diversifying the productive sectors of the economy, particularly agriculture.** Given the limited progress in Sub-Saharan Africa in recent years,

[1] World Bank. 2015. *Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic*. Washington, DC: World Bank.
[2] UNESCO (United Nations Educational, Scientific, and Cultural Organization). 2010. *Adult and Youth Literacy 1990–2015: Analysis for 41 Selected Countries.* Paris: UNESCO.
[3] *World Development Indicator (WDI) Dataset*. Washington, DC: World Bank.
[4] World Bank. 2015. *Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic.* Washington, DC: World Bank.
[5] Based on the traditional (consumption) poverty measure (World Bank. 2015. *Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic.* Washington, DC: World Bank).
[6] IMF (International Monetary Fund). 2015. *Mali: Third Review under the Extended Credit Facility Arrangement: Request for Waiver of Performance Criteria, and Request for Modification of Performance Criteria.* IMF Country Report No. 15/151. Washington, DC: IMF.

prospects for rapid structural transformation are unrealistic. The limited progress points to the necessity to address certain key prerequisites to enable the agricultural sector to seize opportunities arising from urban growth, which will increase demand for livestock products and high-value farm products. These prerequisites are (a) significant productivity gains in agriculture; (b) diversification of products to high-value crops; (c) increased value addition; (d) a flexible labor market, (e) education necessary for the labor force to adapt to new sectors; and (f) conditions favorable to trade and investment (notably, low transport costs and a good investment climate that includes efficient enabling services). Growing Mali's agricultural private sector will require following a gradual approach. Growth prospects should be explored, first within existing value chains and sectors and try to be expanded toward products that are relatively low in economic complexity but are still close to what is already being produced.

B. Sectoral and Institutional Context

5. **The Malian agricultural sector is highly fragmented and subsistence farming is the dominant model.** The majority of farms are small. Sixty-eight percent of farmers work on fewer than 5 ha of land, while another 18 percent enjoy access to between 5 and 10 ha but lack critical assets and inputs. Furthermore, a large part of the rural road network to access the agricultural production basin, especially in the Sikasso region, is impassable during the rainy season (June to September), hindering producers from accessing urban and export markets. Of the country's 37,000 km rural road network, 95 percent is in bad condition. The Rural Access Index is approximately 22 percent, which is the third lowest in the world.

6. **Independent smallholders remain largely disconnected from markets.** The lack of integration of smallholders into more productivity-enhancing and value-generating value chains (notably through processing) can be traced to low levels of organization and capacity among this group. This applies not only to markets in which larger operators, requiring better organization and higher levels of capacity, are often absent but also to inter-professional organizations, cooperatives, and other professional groups.

7. **Moreover, investments in the agriculture sector are very low.** It is true that public investment in agriculture is 15 percent, that is, above the 10 percent Comprehensive Africa Agriculture Development Program target. However, in a fragile landlocked economy such as Mali, 15 percent is neither sufficient nor necessarily sustainable. The efficiency of public support needs to be improved to leverage private investment, which is also very much needed. Agricultural production receives only a small portion (5.49 percent) of the overall private sector credit, largely to finance the cotton sector.[7] With the exception of the National Bank of Agricultural Development (*Banque Nationale de Developpement Agricole*), and to a much lesser

[7] The cotton sector entry point is the Malian Company for Textile Development (*Compagnie Malienne pour le Développement du Textile,* CMDT), which contracts farmers and acts as the guarantor for financial institutions. These formal relationships are primary means to track financial and product flows along the cotton value chain and reduce the credit risk to the sector. Other sectors, including the mango, maize, and livestock value chains, are less organized, but they can learn from cotton's bankability. Inter-professional organizations can support emerging entry points to mitigate the following risks: informational asymmetries; lack of inclusion, transparency, and trust among stakeholders; lack of assets to be used as collateral; low lender knowledge of agriculture and value chain financing; and borrowers' limited financial and business skills.

extent the Malian Bank of Solidarity (*Banque Malienne de Solidarite*), banks and multilateral financial institutions rarely directly finance producer cooperatives and/or farmers. However, interest in expanding investment opportunities in the sector seems to be growing. The Bank of Africa, Ecobank Transnational Incorporated, *Banque Sahelo Saharienne pour l'Investissement et le Commerce*, and, more recently, the Atlantic Bank Group *(Banque Atlantique)* have diversified their financing beyond the cotton sector. The International Bank of Mali (*Banque Internationale pour le Mali)* is showing increasing interest in cattle fattening.

8. **Stronger participation from Mali's private sector in agricultural production and transformation is required to grow and diversify the agri-based economy of Mali.** Mali's agricultural private sector is small and has not yet formally engaged with independent smallholders. As few as 40 firms pay 80 percent of all formal private sector salaries.[8] With only 800 industrial firms,[9] Mali's processing and industrial capacity is underdeveloped. Very few private sector players have emerged that have the capacity to contract relationships with independent smallholders and to provide an integrated package of inputs, financing, extension, and marketing services. Growing Mali's agricultural private sector will require following a gradual approach, by seeking relatively organized and potentially creditworthy actors as anchors, and then forging with (or around) them productive alliances with smallholders and farmers' cooperatives to improve the quantity and quality of supply. Better integrating local suppliers around agro-industrial processing units and supporting private sector providers of agribusiness services will augment revenues and lower the costs to actors to maximize economic benefits derived from each value chain.

9. **The National Investment Promotion Agency (*Agence pour la Promotion des Investissements au Mali,* API-Mali) has a central role to play in encouraging both foreign and local agribusiness investment.**[10] However, API-Mali has not been able to fulfil that role during a phase of decline since the 2012 coup. Recent independent evaluations identified the need to substantially change the structure and staffing of the agency. In addition, after four years of extremely limited funding, the agency must start to rebuild its capacities and role as the nation's lead investment promotion structure. Weak structural and operational capacities and the lack of predictable processes for investors, compounded by the international negative perception of Mali as an investment destination, are constraints to overcome to promote vibrant agricultural value chains (and others).

10. **The project will focus on two emerging agricultural value chains in the agricultural basin of Sikasso-Bamako-Koulikoro offering strong prospects of economic, private sector-led development around processing and value-addition activities: (a) mango and (b) animal feed.** The economic and financial analysis in the Implementation Completion and Results Report (ICR) of the Agricultural Competitiveness and Diversification Project (ACDP), closed on June 30, 2015, revealed that mango production and cattle fattening, respectively, are the second and

[8] World Bank. 2015. *Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic.* Washington, DC: World Bank.
[9] Compared to 4,000 in Sénégal and 6,000 in Cote d'Ivoire (World Bank. 2015. *Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic.* Washington, DC: World Bank).
[10] The mandate of API-Mali is to promote foreign direct investment (FDI) and SME development.

third most profitable undertakings in Mali financed under the Project.[11] Building on the ACDP and other World Bank experiences, these two value chains are deemed major sources of potential for agro-industrialization in the coming decades through (a) improving productivity; (b) reducing post-harvest losses; (c) increasing the processing of agricultural products; and (d) facilitating access to higher-value markets for both fresh and processed products. Although the abovementioned selection area is characterized by a favorable natural endowment for agricultural production and, most importantly, for the crops under the selected value chains, the Sikasso region is also associated with high levels of poverty[12] and subsistence farming.

Mango Value Chain

11. **Mali mango value chain (covering fresh, processed, and dried mango) has a clear international competitive advantage (due to its high quality and harvest timing).** It also has a potential to be unlocked to fully use its existing transformation and export capacities. Contributing US$35.5 million in exports in 2014,[13] mango is already one of Mali's most important agricultural export products.[14] The ACDP was instrumental in more than tripling the combined export volume to Europe, the Maghreb, and Economic Community of West African States (ECOWAS) region from 10,500 tons in 2008 to 38,800 tons in 2015, a 20.5 percent compound annual growth rate over the period. On the other hand, of the 600,000 tons of mango produced in Mali in 2015, only 38,800 tons were exported (6 percent of the total or 11 percent of exportable varieties).[15] This low marketed level testifies to the important untapped potential that exists to increase market penetration.

12. **In recent years, Mali has reached a total installed processing capacity of approximately 85,000 tons[16] (pulp, dried mango, and juice). However the supply of exportable mango is stagnating.** The reasons are varied. Recovering this installed capacity means that it is important to prevent orchards from getting too old. Ensuring their continuous renewal is essential. Orchard densification or expansion takes time (four to six years) and requires a specific longer-term investment strategy. Another major difficulty is access to finance.

[11] The ACDP (P081704), on which this operation builds, provided economic and financial analysis of 18 agricultural value chains. The internal rate of return (IRR) analyses of the investments of these 18 value chains (excluding subsidies) revealed that mango production and cattle fattening, respectively, are the second and third most profitable undertakings in Mali. The first most profitable value chain is potato. However, this project will not support potato since this value chain has been handed over to the West African Agricultural Productivity Program (WAAPP) for support (World Bank. 2015. *ACDP Implementation Completion and Results Report*. Washington, DC: World Bank).

[12] Using the traditional poverty measure (consumption), the Sikasso region has the highest poverty incidence (83.2 percent) (World Bank. 2015. *Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic* Washington, DC: World Bank).

[13] Fresh and transformed mango.

[14] Livestock and cotton (US$311 million). Total exports of goods and services represent US$3.3 billion.

[15] IFM (*Interprofession de la Filière Mangue au Mali)*. 2015. *Rapport de la journée de validation du bilan sur la collecte, traitement et analyse des données statistiques sur la production et la commercialisation de la mangue*; ACDP (Agricultural Competitiveness and Diversification Project). 2009. *Évaluation du potentiel de production agricole et mise en place d'un dispositif de suivi de la production combinant analyse statistique, télédétection, et enquête de terrain pour le compte du PCDA: Rapport final provisoire*.

[16] Fresh mangos input volume. Almost all of this installed capacity is for puree and concentrate. Other mango product capacities are marginal, for example, 500 tons of installed capacity for dried mango. Interviews with mango processing company operators and owners, 2015 and 2016.

Harvest period, while timely for export markets, also coincides with the rainy season. As a result, exporters and processors have great difficulty securing enough mangos. Physical access to orchards is difficult and, in some cases, impossible. Due to seasonal or permanent interruption of rural roads, most production areas are barely accessible by light trucks. In addition, the collection of mangos is a major logistical challenge. Today, collecting mangos at farm gates requires multiple stops, dramatically increasing the cost of collection. In contrast, aggregating mango supply at key points would enable larger quantities to be collected at once.

Animal Feed Value Chain

13. **Mali animal feed value chain (extending from inputs production such as for cereals, oilseeds[17] to feed milling) in the abovementioned selection area has significant opportunities for expanding investment in animal feed commodities.** It will ultimately increase revenues of rural farmers and animal producers, improve the nutritional value of livestock, and support animal processors in meeting the increasing market demand for high-quality meats.

14. **Animal feed production has strong potential to establish an agro-industrial sector that will be driven by modern production of cattle, sheep, goats, and poultry.** Mali is a major center in West Africa for livestock rearing. The country has more than 10 million cows and 34 million sheep and goats. The sector contributes approximately 10 percent of Mali's GDP.[18] However, as of today, less than 0.5 percent of these animals are used for fattening purposes.[19] This figure is bound to rise exponentially as the country continues to urbanize at rates superior than 5 percent per year[20] and the demand for animal products (quality meats, milk, and eggs) grows, over 12 percent per year for broiler meat and over 9 percent per year for chicken eggs,[21] for instance. Supply capacity is also rising with the recent increase in modern slaughterhouse capacity by 300 cattle and 600 ovine/goat per day. Industrial production of livestock feed is expected to follow (by more than 50,000 tons yearly by 2020).[22] In addition to the strong internal consumption, two important stimuli are the external demand in the region (meat in Côte d'Ivoire and Senegal, animal feed in Mauritania and Senegal) and unfavorable change in climate conditions that is reducing available pasture areas (livestock grows at 3 percent annually[23] whereas grazing areas for animals are shrinking).

15. **The current state of feed production in Mali requires fostering and enabling contractual relationships among stakeholders in the value chain, combined with targeted and hands-on support to farmer cooperatives.** Contractual relationships require taking into account access to land issues for each kind of stakeholder. This will facilitate a much-needed access to finance for producers, thus increasing quality and sustainably diversifying animal feed inputs, such as soybeans and sunflower seeds. Improvements in post-harvest storage and

[17] Findings from ACDP work also pointed to sorghum, millet, cowpeas, niebe, soya, rice flour, millet bran, and crop residues (groundnut and green bean tops).
[18] IMF dataset, November 2015.
[19] DNPIA (*Direction Nationale des Produits et des Industries Animales*). 2014. *Rapport Annuel*.
[20] U.S. CIA (Central Intelligence Agency). 2015. *The World Factbook*. Washington, DC.
[21] Interview with Poultry Sector Stakeholders Federation of Mali (*Fédération des Intervenants de la Filière Avicole au Mali*, FIFAM), 2016.
[22] Interviews with feed mill owners, 2015 and 2016.
[23] DNPIA. (*Direction Nationale des Produits et des Industries Animales*). 2014 *Rapport Annuel..*

management by the feed industry at the production level are important for farmer and trader cooperatives to reduce post-harvest losses and respond to market demand. The two main feed ingredients most relevant to smallholders are cereals[24] and oilcake. Mali's high annual production of maize (1.7 million tons)[25] and cotton seeds (250,000 tons) gives the country a clear advantage to respond to the rising national, regional, and international demand for animal feed. The fact that some animal feed companies already export a significant part of their production[26] provides a good opportunity to improve the local supply of feed. Oilcake (35 percent of livestock feed) is the byproduct derived primarily from crushing cotton seeds (or from other oilseeds). Mali uses approximately only 25 percent (500,000 tons) of its installed oil crushing capacity (1.9 million tons).[27] Only 250,000 tons of cotton seeds are produced in Mali under CMDT,[28] whereas approximately the same volume is imported from neighboring countries.

16. **As Mali's beef industry grows, it is expected to transition from more traditional styles of livestock raising to more modern systems.** The transition to higher volume and more modern commercial systems will entail greater use of animal feed for cattle. Currently, few operators in Mali practice animal fattening prior to slaughter. These intensive fatteners operate only from December through June (dry season), when the amount of pasture is very limited. They feed their cattle on a three-month cycle and usually have two cycles during this period. From the animal nutrition standpoint, this system has massive inefficiencies that should be improved, including the feed quality and blends that certainly could be optimized.

17. **To conclude—In light of the abovementioned analysis, the proposed project will focus on the mango and animal feed value chains in the production-marketing nexus as the means to generate productive investments, create job opportunities, and increase incomes in both rural and peri-urban areas.** It will also promote commercial agriculture as the means to demonstrate modern practices and technologies that farmers can adopt, thus enhancing their opportunities for shared prosperity. Finally, road rehabilitation will benefit more broadly people who live in production areas, giving them better access to basic services including education and health.

18. **One approach of the Project will be to expand market opportunities to the poorest farmers as a collective (through their cooperatives and associations) to be part of productive alliances that will guarantee them relationships with buyers and good prices for their produce.** By improving access to production areas and strengthening linkages among value chain actors, the Project will give farmers an incentive to increase their productivity for selected crops such as cereals and thus the opportunity to increase their earnings. At the same time, the envisaged productive alliances will enable farmers to introduce modern technology, as well as

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[24] Mainly maize, while Mali has a surplus production of maize. In addition to human consumption, maize contributes to animal feeding (60 percent of poultry feed and also feed to dairy cattle). However, cereal products face quality issues, both on-farm and at first-stage transformation, that affect feed quality and value addition.
[25] After Nigeria, Mali and Ghana tie for being the second most important producers of maize in West Africa (U.S. Department of Agriculture, Washington, DC).
[26] Interviews with feed mill owners and cereal wholesalers from Bamako, Koutiala, and Sikasso, 2015 and 2016.
[27] Interview with CMDT, 2016.
[28] Interview with the National Oil Mill and Cattle Feed Federation of Mali (*Fédération Nationale des Producteurs d'Huile et d'Aliment Bétails au Mali,* FENAPHAB), 2016.

help access finance more easily. The alliances also will enable all participants in the supply chains to share the gains made by penetrating new national and international markets.

C. Higher Level Objectives to Which the Project Contributes

19. **The proposed Mali Support to Agro-Industrial Competitiveness Project (SACP) will be part of the broader Government strategy that favors commercial agriculture.** In 2014, the Ministry of Rural Development issued a Concept Note for the *Agropoles* Program adopted by the Council of Ministers.[29] The road map and terms of reference (ToRs) were shared with development partners in August 2014. The program's objective is to increase the agricultural sector's contribution to economic growth and poverty reduction through stronger linkages with the agro-processing and trading sectors. The comparative advantage of the Malian economy will be leveraged to create stable jobs and increase the incomes of the rural population. The Government of Mali (GoM) prioritized four *Agropoles*: Bamako, Kidal, Segou, and Sikasso. This project will focus on the Sikasso region, building on the ACDP. Another operation (IDA scale-up facility) is being discussed to finance commercially viable irrigation expansion in the Niger Office (*Office du Niger*) zone in the Segou region, building on the Fostering Agricultural Productivity Project (FAPP). The African Development Bank (AfDB) is supporting the Bamako peri-urban area building on the Project to Improve Food and Nutritional Security in Koulikoro Region *(Projet de Renforcement de la Sécurité Alimentaire et Nutritionnelle dans la Région de Koulikoro*, PReSAN-K1*)*. Finally, the National Fund to Support Agriculture (*Fonds National d'Appui à l'Agriculture,* FNAA) will finance the feasibility study for the Kidal region.

20. **The Project will contribute directly to one of the main objectives of the World Bank Group Country Partnership Framework (CPF) for the period of FY2016–2019 (Report No. 94005-ML, discussed by the Board of Executive Directors on 12/10/2015), that is, to create economic opportunities.** In line with the 2015 Systematic Country Diagnostic, the CPF highlights the importance of developing the Malian agricultural sector to reduce poverty on a lasting basis. One of the three objectives of the CPF is to create economic opportunities by (a) improving the productive capacity and market integration of farmers and pastoralists; (b) diversifying agricultural value; and (c) improving infrastructure and connectivity to all Malians. Expected project impacts (higher level objectives) are (a) sustainable growth and diversification of the agricultural sector; (b) enhanced participation in targeted local, regional, and global value chains; and (c) raising either rural incomes or the number of jobs created. In sum, the proposed Project will contribute directly to the CPF's objectives, focusing on 'improving transformation and participation to local, regional, and global value chains' with the expected outcomes of 'increased productivity in agriculture' and 'expanded access to markets in key agricultural value chains.'

21. **The proposed Project is one pillar of the World Bank Group Joint Implementation Plan for Mali, which focused on agriculture and livestock: 'Reducing Poverty through Private Sector Investment in Agribusiness'.** Close coordination among the World Bank, International Finance Corporation (IFC), and Multilateral Investment Guarantee Agency will play an important role in supporting commercial value chain development in areas including

[29] Ministry of Agriculture. 2014. *Note Conceptuelle de l'Approche Agropoles au Mali.* GoM, Bamako.

governance (investment, land, and water), infrastructure (irrigation, energy, storage, transport, information and communication technology [ICT]), and services (productive alliances, skills, and access to finance). Each institution will contribute based on its respective mandates. In addition to policy dialogue and support to critical reforms, the World Bank will mobilize funding through credit and grant in the horticulture, livestock, cereals and oil seeds value chains with Investment Project Financing and Development Policy Operation projects (with estimated amount above $230 million). The IFC intervention will mainly focus on supporting the expansion of key agro industrial players with the provision of long term financing (loan/ equity with an estimated amount above $10 million) that is not available in the local banking sector. It is also expected that the IFC mobilizes technical assistance to support smallholders' access to finance and development of warehouse receipts system. The Joint Implementation Plan lays out the World Bank Group activities planned for southern Mali and the Niger Office (*Office du Niger*): the sequence and proposed timeline, specific roles of various teams, and key milestones and outcomes to monitor progress. The proposed project approach is to increase processing in the two value chains. It will address major constraints faced by industrial firms and create relationships among actors, bringing them into the formal private sector, thus creating a pipeline of viable projects for IFC and Multilateral Investment Guarantee Agency.

22. **Alignment with the World Bank's strategic goals.** The proposed project contributes to the World Bank Group's corporate goals of ending extreme poverty and promoting shared prosperity: Even though its small farmers produce in excess, the selected project area has the highest poverty incidence in Mali because of suboptimal access to markets. The project approach involves expanding market opportunities to the poorest farmers by connecting them collectively (through their cooperatives and associations) to buyers of their produce, and thereby incentivizing higher productivity, to help increase their earnings.

23. **Relationship of the Project to the United Nations (UN) Sustainable Development Goals.** The Project will contribute to achieve four of the 17 Sustainable Development Goals: (a) promoting inclusive and sustainable economic growth, employment, and decent work for all (Goal 8);[30] (b) building resilient infrastructure, promoting sustainable industrialization, and fostering innovation (Goal 9);[31] (c) reducing inequality within and among countries (Goal 10);[32] and (d) ensuring sustainable consumption and production patterns (Goal 12).[33]

[30] In addition to sustaining per capita economic growth, the project will improve global resource efficiency in consumption and production of agricultural products, thereby supporting sustained economic growth while minimizing environmental degradation.

[31] The Project will help develop high-quality, reliable, sustainable, and resilient infrastructure to support economic development in two main ways. The Project will rehabilitate rural roads to connect orchards to collection facilities and processing units, and increase the capacity utilization of collection facilities and processing units.

[32] Developing rural entrepreneurship will strengthen gender inclusion because it will provide women with opportunities along the agricultural value chains, particularly in agricultural product processing. The Project will encourage gender inclusion through specific actions that will ensure equal opportunities and reduce unequal outcomes by, among other measures, reaching an estimated 40 percent of women among value chain actors.

[33] The Project will foster the sustainable management and efficient use of food resources by encouraging producers and industries to recycle and reduce food waste while improving food security.

II. PROJECT DEVELOPMENT OBJECTIVE

A. Project Development Objective (PDO)

24. The PDO of the Project is to increase the processing of agricultural products for targeted value chains in the selected geographic area.

25. "Processing" is defined as the conversion of harvested agricultural products into valuable, marketable products. "Targeted value chains" refer to mango and animal feed. The "geographic area" is the agricultural production basin of Sikasso-Bamako-Koulikoro in southern Mali.

Project Beneficiaries

26. The Project will directly benefit those involved in the mango and animal feed value chains in the targeted geographic area, including the following groups:

(a) Key value chain actors/stakeholder groups (individuals and firms) encompassing 5,000 farmers,[34] 500 rural assemblers, 20 traders/exporters, and 5 processors in the mango value chain; 9,000 farmers, 50 traders/exporters, 70 processors, and 5 slaughter houses in the animal feed value chain; as well as workers who will be employed by the value chain's actors

(b) Participating private entities such as professional and inter-professional organizations including, but not limited to, Mali Chamber of Commerce and Industry (*Chambre de Commerce et d'Industrie du Mali*), the Mango Value Chain Interprofession (*Interprofession de la Filière Mangue au Mali,* IFM), FIFAM, National Livestock-Meat Value Chain Inter-professional Federation (*Fédération Nationale Groupement Interprofessionnel de la filière Bétail-Viande,* FEBEVIM), National Milk Producers Federation of Mali (*Fédération nationale des producteurs laitiers du Mali*, FENALAIT), FENAPHAB, Industrial Employers' Organization (*Organisation Patronale des Industriels,* OPI), 100 producer and trader cooperatives, and the Professional Association of Banks and Financial Institutions (*Association Professionnelle des Banques et Etablissements Financiers du Mali,* APBEF)

(c) Agents involved in activities that link with the Project through its backward-linkage (nursery owners, seed producers, agro-input suppliers, and rural assemblers) and forward-linkage (transport operators, retailers, shipping enterprises, and suppliers of packaging materials)

(d) Rural communities living in areas that will become accessible through the improved road system, local consumers of the agricultural and livestock products, and users of the API-Mali one-stop shop (OSS)

[34] Producing exportable varieties of mangos.

(e) Ministries, departments, and agencies[35] such as the Ministry of Agriculture (MoA), Ministry of Livestock (MoL), Ministry of Trade (MoTRADE), Ministry of Industrial Development (MoID), Ministry of Investment Promotion and Private Sector, API-Mali, regional directorates of these ministries, the Institute for Rural Economy (*Institut d'Economie Rurale*)), National Committee for Agricultural Research (CNRA), land commissions, and local authorities

PDO Level Results Indicators

27. The key result indicators that will be used to measure the achievement of the PDO are (a) volume of processed mango output marketed by project-supported beneficiaries (tons per year) and (b) volume of processed feed output marketed by project-supported beneficiaries (tons per year). The Project will include a citizen engagement review mechanism (see Annex 3).

28. **Specific attention will be given to gender inclusion in all project activities.** Gender-related issues will be analyzed and actions that are expected to narrow gender inequality will be prioritized. Identified entry points along value chains are to (a) provide opportunities for women to gain access to inputs and market information, including through the use of ICT-based solutions; (b) assist women's groups to purchase equipment to expand processing; (c) assist women to overcome mobility constraints and social barriers; (d) increase participation of women in association leadership roles; (e) encourage more women-owned enterprises to join trade associations; and (f) facilitate and help women to access funding for their enterprises by providing dedicated support.

III. PROJECT DESCRIPTION

29. To support the development of mango and animal feed value chains in the agricultural area of Sikasso-Bamako-Koulikoro, a number of formal and/or agro-industrial entry points in the form of private operators and organizations have been identified. Through Government-led consultations, key representatives of private sector operators have prioritized binding constraints they encounter in attempting to improve their competitiveness. In response, the Project will strengthen their technical and commercial capacities and help them (a) realize their full growth potential; (b) enhance existing and future processing capabilities; and (c) increase their access to domestic, regional, and international markets.

30. Additional major areas of improvement identified during the consultations were the access to production areas, the quality of local supply, and the absence of functioning supportive infrastructure. The Project will provide support to address this infrastructure bottleneck by improving rural and feeder roads and upgrading/modernizing market-support infrastructure services. Finally, the Project will seek to improve the institutional and fiduciary capacity of API-Mali and the MoA.

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[35] National Directorate for Agriculture (*Direction Nationale de l'Agriculture*), National Directorate for Rural Engineering (*Direction Nationale du Génie Rural*, DNGR), National Directorate for Animal Products and Industries (*Direction Nationale de l'Agriculture*, DNPIA), National Directorate for Veterinary Services (*Direction Nationale des Services Vétérinaires*, DNSV), National Directorate for Roads (*Direction Nationale des Routes*, DNR), National Directorate for Industry (*Direction Nationale de l'Industrie,* DNI), and API-Mali.

31. With an estimated IDA Credit of SDR 21.50 million (US$30 million equivalent), the Project will support the GoM *Agropoles* strategy through the following four components.

(a) Component 1: Expand Mango Processing and Investment Opportunities (SDR 3.90 million, equivalent to US$5.5 million)

(b) Component 2: Improve Access to Mango Production Areas (SDR 7.75 million, equivalent to US$10.8 million)

(c) Component 3: Foster Animal Feed Production (SDR 6.90 million, equivalent to US$9.6 million)

(d) Component 4: Strengthen Project Implementation (SDR 2.95 million, equivalent to US$4.1 million)

A. Project Components

Component 1: Expand Mango Processing and Investment Opportunities (SDR 3.90 million, equivalent to US$5.5 million)

32. Component 1 will aim at increasing mango production, processing and export, through the following two subcomponents:

Subcomponent 1(a): Promote Mango Processing and Exports (SDR 1.60 million, equivalent to US$2.3 million)

33. The Project will assist existing farmers in increasing mango production to the limit at which the intended growth through densification or expansion can be sustained with their current and forecasted cash flows. Support through technical assistance (TA), consultant services, and trainings to industrial and market-oriented actors in the mango value chain will help strengthen linkages among value chain actors. Each category of actors (nurserymen, farmers, rural assemblers, processors, and exporters) as well as the IFM, farmer cooperatives, and agro-industries will benefit from technical support targeting increased processing and export of fruits.

34. The order of activities to be conducted will be assessed based on the needs of exporters and processors and the actual capacity of local suppliers. Contractual agreements will come at the stage at which local sourcing capacity is able to commit. Activities will include the following:

(a) Improving nurseries management and establishing a certification process, through the provision of technical advisory services. This will help farmers know which variety to buy to increase their share of exportable varieties

(b) Facilitating the financing of private sector-led orchard rehabilitation, improvement, and expansion, through the provision of technical advisory services, and extension and business development services (BDS)

(c) Facilitating rural assemblers/brokers in the dissemination of good farming practices and data collection, through the provision of training. This will help enable a more efficient logistic of mango collection

(d) Providing technical advisory services and training to (i) enhance knowledge of export markets and facilitating the adoption of sanitary and phytosanitary, food safety, bio and hazard analysis critical control point certification and (ii) strengthen traceability, logistics, and pest treatment systems (including using ICT-based solutions, fight against fruit fly). This will help meet export markets' quality and sanitary requirements

(e) Strengthening the IFM statistical capabilities and strategic ownership of the value chain development and help farmers to consolidate into formal Organization for the Harmonization of Business Law in Africa (OHADA) cooperatives

Subcomponent 1(b): Strengthen Institutional Capacities at API-Mali (SDR 2.30 million, equivalent to US$3.2 million)

35. Subcomponent 1(b) will aim at generating private investments in mango and animal feed value chains through a results-based Memorandum of Understanding (MoU) with API-Mali, and will finance experts, targeted TA, consultant services, trainings, and IT development and equipment at API-Mali. The activities will consist of the following:

(a) Recruiting at least five highly qualified staff at key positions to strength API-Mali's capacity to deliver the mandate contained in its business plan

(b) Improving Mali's image as an agribusiness destination (including website improvement, media outreach, investors surveys, investors forum, and quality management certification)

(c) Generating and converting to operational status a pipeline of serious agribusiness investors in targeted value chains (including sales missions and aftercare services), all through the provision of technical advisory services, training, and acquisition of goods

Component 2: Improve Access to Mango Production Areas (SDR 7.75 million, equivalent to US$10.8 million)

36. Component 2 will finance two types of infrastructure that are physical inputs to the mango value chain: (a) the rehabilitation of 300 km of rural roads and (b) the construction and modernization of seven post-harvest facilities including collection and conditioning centers. The objective of this component is to improve the uninterrupted and timely supply of agricultural products, mostly mangos, by facilitating physical access to production sites, collection, and conditioning of products in the Sikasso region.

Subcomponent 2(a): Rehabilitate Rural Roads (SDR 5.95 million, equivalent to US$8.3 million)

37. Subcomponent 2(a) will aim at carrying out the rehabilitation of approximately 300 km priority rural roads in the identified mango value chain areas, including construction of drainage structures, culvert, and small bridges to ensure passage during the rainy season.

38. This will be done by financing technical studies, undertaking supervisory and control missions, and carrying out civil works. Of these 300 km of priority roads to be improved into all-season roads (out of a total of 1,000 km proposed by the IFM), (a) 100 km will be located in the Sikasso District, which is the highest mango yield production basin in the country, and (b) 200

km will be located in the Yanfolila District, which is Mali's second highest yield production basin and the home of the biggest mango processing factory.

Subcomponent 2(b): Modernize Collection and Conditioning Facilities (SDR 1.80 million, equivalent to US$2.5 million)

39. Subcomponent 2(b) will aim at carrying out the construction and modernization of post-harvest facilities for mangos through financing technical studies, supervisory control missions, and civil works. The establishment of these facilities will help collecting and conditioning fresh mangos for processing, or for fresh exports. The following facilities will be covered:

(a) In the Sikasso District, three collection facilities will be upgraded in the 'Mandela' production basin. Each facility will be upgraded with basic services including drilling wells to access water, solar energy, pallets for packaging, insect netting, and a warehouse.

(b) Four collection and conditioning facilities will be built and made operational, of which three will be in the Yanfolila District, which currently has no post-harvest facilities.

Component 3: Foster Animal Feed Production (SDR 6.90 million, equivalent to US$9.6 million)

40. Component 3 will assist animal feed industries in increasing quantity and quality of production by securing stable quality inputs (including cereals and oilseeds). Thus, this component will ensure that enough animal feed is produced at low cost to catalyze the growth of meat under modern conditions. To this end, Component 3 will support the establishment of productive alliances between rural producers and their buyers (intermediaries, wholesalers, or industrial firms) in the animal feed value chain and finance part of their joint business plans. By formalizing relationships between the animal feed industry actors, the Project will facilitate access to finance and expand opportunities for investment in cereals and feed commodities, ultimately increasing the revenues of rural farmers and industrial firms, improving the nutritional value of livestock, and supporting animal processors to meet increasing market demand for high-quality meats.

41. The Project will award demand-based financing for productive alliances subprojects and finance the selection process and implementation of these subprojects in the animal feed value chain. The productive alliance is defined as an association of producers and purchasers eligible for participation under the Project in accordance with the provisions of the Project Implementation Manual (PIM). The productive alliance is an economic agreement between a group of organized producers and a buyer (intermediary, wholesaler, or an agro-processor) in which all assume risks, provide resources, and share the profits, such that the agreement can continue over the medium and long term. Successful alliances bring benefits first to producers and buyers and, by extension, to communities and consumers. The component's main output will be the implementation of about 100 subprojects with clearly defined and sustainable goals. It will be required that at least 30 percent of productive investments for subproject cost be covered by the beneficiaries in cash to ensure that producers and buyers have the necessary resource endowment. On average, the Project will finance approximatively US$70,000 in each subproject.

Subcomponent 3(a): Strengthen Capacities of Value Chains Actors (SDR 2.00 million, equivalent to US$2.8 million)

42. Subcomponent 3(a) will provide support for the creation and strengthening productive alliances in the animal feed value chain. Activities will include the following:

(a) Designing and implementing a communication and dissemination campaign for the productive alliances model and organizing local workshops and mass-media outlets to inform the stakeholders involved in animal feed production about the scope and rules of the Mali SAC Project

(b) Increasing technical assistance and business development, and developing the capacity of the private providers to familiarize said providers with the Project concept and processes, through the provision of training, and establishing a technical service provider database (including an outreach program to expand the number of available relevant providers)

(c) Performing pre-investment activities such as (i) providing pre-investment financing to create proposals with viable business plans, including feasibility studies to rehabilitate or construct facilities; (ii) institutional capacity building aimed at organizing farmers' groups into cooperatives (including governance and leadership) and providing trainings to cooperatives to improve their marketing and business skills in animal feed production and inputs; and (iii) preparing the productive alliances business plans

(d) Selecting Productive Alliances under a competitive process, including consideration of financial and technical capacity, and social environment impacts as related to their respective business plans

Subcomponent 3(b): Implement Productive Alliances Business Plans through Subprojects (SDR 4.90 million, equivalent to US$6.8 million)

43. Subcomponent 3(b) will finance through a competitive fund (a) the carrying out of subprojects in support of the effective implementation of the productive alliances investment plans and (b) the provision of support for the implementation of subprojects.

44. The financial support to carry out subprojects in support of the effective implementation of the productive alliances investment plans will consist of, among others, one or more of the following activities:

(a) **Providing BDS.** Access to financial services, business management, advisory work to facilitate firms' access to markets in Mali and abroad, information technology, certification, and others

(b) **Providing TA.** Quality improvement through better use of storage systems, harvesting and drying equipment, productivity increase through adoption of better farming techniques, capacity building and trainings to improve the industrial practices of agro-processors, strategies for local sourcing of alternative feed inputs, and others

(c) **Matching financing for equipment and productive infrastructure.** Installation of production equipment (shellers, threshers, and dryers), modernization and/or construction of post-harvest storage facilities (warehouses, silos, and ventilated storage), industrial production units construction for expansion, and others

Component 4: Strengthen Project Implementation (SDR 2.95 million, equivalent to US$4.1 million)

45. **Component 4 will ensure that project activities are implemented in accordance with the agreed work schedule and in compliance with the Financing Agreement.** It will aim at strengthening the institutional and human resources capacity of the MoA, the CNRA and the Project Coordination Unit (PCU) for project implementation, coordination, reporting, monitoring and evaluation (M&E), and management, including fiduciary (that is, procurement and FM) aspects, environmental and social safeguards monitoring, and specific management of result-based memoranda of understanding with the relevant, ministries, departments and agencies. (See detailed implementation arrangements in Annex 3.)

B. Project Financing

46. **Secured World Bank financing.** The proposed project will have a total cost of SDR 21.50 million (equivalent to US$30 million) and will be financed through an Investment Project Financing in the form of an IDA credit.

47. **Potential for additional financing in the IDA18 cycle.** Based on the performance of the proposed project during its implementation, in line with one of the CPF's main objectives ('create economic opportunities') and upon request from the Government, it is envisaged that additional financing may be requested to extend the scale ('project beneficiaries'), the scope ('targeted value chains'), and the reach ('geographic area') of the project's interventions to (a) improve access to production areas and (b) foster animal feed production, including fishmeal.

Table 1. Summary of Project Cost by Components (US$, thousands)

	Project Cost	**Total (%)**
Component 1: Expand Mango Processing and Investment Opportunities	**5,500**	**18.30**
Subcomponent 1(a): Promote Mango Processing and Exports	2,250	7.50
Subcomponent 1(b): Strengthen Institutional Capacities at API-Mali	3,250	10.80
Component 2: Improve Access to Mango Production Areas	**10,800**	**36**
Subcomponent 2(a): Rehabilitate Rural Roads	8,300	27.70
Subcomponent 2(b): Modernize Collection and Conditioning Facilities	2,500	8.30
Component 3: Foster Animal Feed Production	**9,600**	**32.00**
Subcomponent 3(a): Strengthen Capacities of Value Chains Actors	2,800	9.30
Subcomponent 3(b): Implement Productive Alliances Business Plans through Subprojects	6,800	22.70
Component 4: Strengthen Project Implementation	**4,100**	**13.70**
Of which : unallocated	600	2.00
Total	**30,000**	**100**

C. Lessons Learned and Reflected in the Project Design

48. Informative lessons[36] have emerged from previous efforts in multiple countries to develop, strengthen, and consolidate value chains. The design of this project reflects the lessons learned from projects implemented in Mali and other countries as well as the prevailing thought in agribusiness development. Lessons from Independent Evaluation Group (IEG) Project Performance Assessment Report (PPAR No. 40206) for three projects[37] in Mali were also incorporated.

49. Lessons learned and included in the design of this project are the following:

(a) **Selectivity emerged as the primary guiding principle in designing value chain interventions during project preparation.** In the past, projects that intervened in a large number of value chains at the same time did not yield the desired results. The recently completed ACDP initially supported 18 value chains but the team quickly realized that to provide effective support, the number of value chains had to be reduced. The SACP will focus on only two value chains: (a) mango value chain to diversify products and markets for exports and (b) animal feed sector to tap the increasing demand for animal feed and quality meats in Mali and West Africa generally.

(b) **Subcomponent 2(a).** Rehabilitate Rural Roads has been designed and will be implemented based on the lessons learnt from Mali Second Transport Sector Project particularly with regard to quality tender documents, supervision and control of works.

(c) **Post-harvest handling.** In a country whose post-harvest loss is high, support to the value chains should include measures to improve post-harvest handling, including quality improvement through support to infrastructure facilities. Experience from past projects indicates that post-harvest facilities generate huge returns on investment from four sources: reducing volume of products wasted; retaining the quality of products; enabling farmers to sell when the price is favorable; and keeping seeds safe, thereby reducing cost to farmers.

(d) **Institutional contractor (IC).** Mali's potential to develop a number of value chains has not been exploited fully. The IEG identified the lack of sufficient knowledge and institutional capacity to support the establishment and strengthening of a full-fledged value chain as the main impediment. The IEG also found that Mali's public sector agencies generally do not have all the required skills, results-oriented culture, and efficiency to directly manage all the requisite interventions ranging from civil works to capacity building. To address this issue, the IEG recommended that a project should consider subcontracting the management and implementation of specific activities to private service providers, including nongovernmental organizations

[36] These informative lessons were drawn from a number of studies and experience from projects supported by donors and the World Bank, such as (a) ACDP (Project Appraisal Document [PAD] and ICR) and (b) World Bank. 2013. *Growing Africa: Unlocking the Potential of Agribusiness*. Washington, DC: World Bank.

[37] The National Agricultural Research Project (NARP), Agricultural Trading and Processing Promotion Pilot Project (ATPPP), and Pilot Private Irrigation Promotion Project.

(NGOs). For example, the ACDP relied on the private sector and NGOs to execute project activities that reduced the burden on the PCU. Given the country's fragile and conflict circumstances, the SACP will hire an IC. The Government's role will be to address market failures, deploy public agriculture, and livestock expertise jointly with the IC, and create a conducive environment for private sector participation in agricultural sector growth. Such institutional support is more effective when it is combined with investment operations than pursuing institutional strengthening and investment operations support separately.

(e) **Project implementation.** Rather, projects should be based on a demand-driven approach that avoids creating predefined, fixed indicators and a limited list of activities. Involving rural people and project beneficiaries at the earliest stages of design and implementation decisions will contribute to a participatory process wherein all resource users are identified, resulting in subproject proposals that are more relevant to community needs. Consequently, the Project has included five key elements of focus during project implementation: (a) an open, competitive subproject selection process based on clearly defined technical evaluation criteria, which can be crucial for establishing credibility among stakeholders and avoiding political interference; (b) need for cash contributions or bank loans as co-financing from producers ensures stronger buy-in; (c) support to producer groups over an extended period while they grow and mature is crucial to ensure long-term success; (d) an assessment of potential buyers can ensure continuity of a vertical alliance; and (e) capacity-building activities for producer organizations need to be tailored to address specific business needs.

(f) **M&E.** It is critical to have a strong M&E mechanism and presence in the field (project area). To be able to monitor as many activities as necessary in the field, a demand-driven approach requires a dynamic and progressive M&E mechanism rather than depending on predefined indicators limited to those included in the Results Framework. In fact, the type of subprojects to be funded will be known only during implementation.

(g) **Risk sharing.** When the aim of a project is to create jobs through private sector investment, it is important first to identify the risk dynamics that prevent the private sector from investing. The Project should then consider how to support the removal or reduction of the risk factors that, as in the case of this project, have been identified as the difficulties that confront processors and exporters in securing their supply locally.

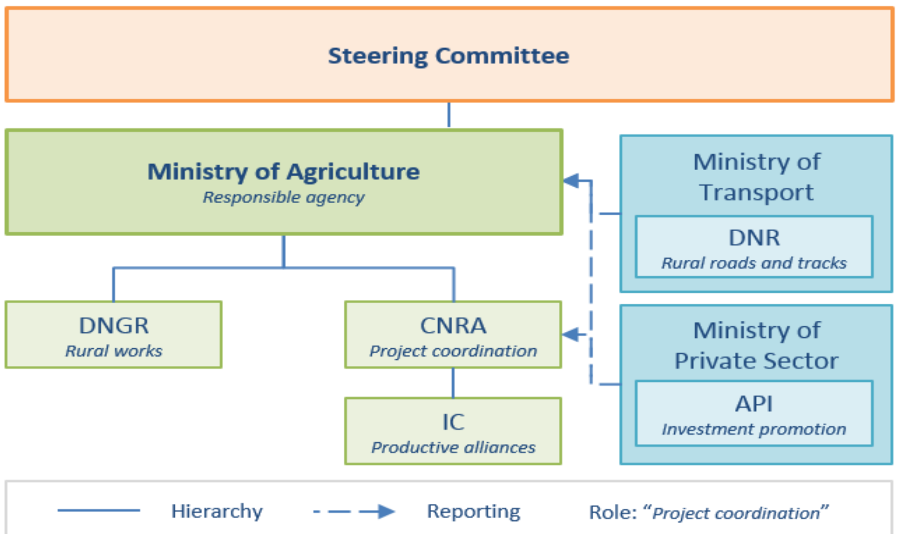
(h) **Multisectoral engagement.** Development of a value chain requires multipronged support, so it usually is best to involve the relevant ministries, agencies, exporters, producers, traders, and other intermediate facilitators. Furthermore, when various arms of the World Bank Group collaborate, the probability of achieving the objectives increases. During the implementation of the Mali Growth Support Project (*Projet d'Appui à la Croissance – Mali*), World Bank and IFC cooperation was successful in implementing the reforms of API-Mali, API OSS, Doing Business reforms, Trade and Personal Property Credit Register (*Registres du Commerce et du Crédit Mobilier*) reform, Financial Monitoring Reports *(Rapports de Suivi Financier)*, and the investment code.

(i) **Gender sensitivity.** Experience has shown that unless a project design explicitly considers gender from the outset, participating women are unlikely to benefit from the activities. The Project has ensured that women's participation is encouraged proactively and that they are direct beneficiaries of the Project, particularly regarding the transformation of agricultural and livestock products and access to finance.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

Figure 1. Implementation Responsibilities



Source: Annex 3, Implementation Arrangements, Table 3.1, Summary of Institutional Arrangements.

50. **Institutional arrangements.** The Project will be implemented by the MoA through the CNRA. The CNRA has an existing Coordination Unit for WAAPP-2A that will be strengthened. The unit will have the overall responsibility for project implementation support. A multisectoral Steering Committee (SC) will be established to guide the MoA. It will be chaired by the MoA with the PCU as secretary and will consist of 14 members. SC members will represent the project's beneficiaries, including representatives from the public (such as the Ministry responsible for finance, National Directorate for Agriculture [*Direction Nationale de l'Agriculture*], DNPIA, DNI, DNR, and Ministry responsible for investment promotion) and private sector and producer groups (such as the Mali Chamber of Commerce and Industry, IFM, FIFAM, FEBEVIM, OPI, FENAPHAB, and APBEF). The SC will have the mandate to review and advise the MoA on an annual Project Implementation Plan. The plan will be prepared by the project's technical director with the contribution of focal points as represented in the SC and will facilitate the coordination of institutions involved in project implementation. Although the number of representatives on the SC is set at 14 and the private sector must be represented by at least 7 members at all times (or a minimum of 50 percent of membership), member composition may change over time as proposed by the Government and deemed acceptable by the World Bank. The SC is expected to meet at least twice a year to review the biannual report that will be

prepared by the project's technical director. The SC ensures that the participating institutions have delivered their reporting requirements to the MoA, specifically to the PCU.

51. **Implementation arrangements.** The PCU at the level of the CNRA is embedded in the MoA and vested with responsibility for financial matters and implementation support for all project activities. Key PCU staff are (a) the coordinator (CNRA executive secretary), (b) the procurement specialist, (c) the financial controller, and (d) the M&E officer. It will be further strengthened with the recruitment of (a) a procurement assistant, (b) a principal accountant, and (c) an assistant accountant. The coordinator will be seconded by a technical director to work in close collaboration with the consultants and alliances. Each key staff in the PCU requires the experience and qualifications satisfactory to IDA. Additional technical staff may be hired for the duration of this project based on the needs of project implementation. The PCU, together with stakeholders, will develop annual work plans (AWPs) and Procurement Plans (PPs), and otherwise drive implementation and the achievement of objectives.

52. **Subprojects of the productive alliances.** The provision of support for the effective implementation of subprojects (productive alliances investment plans) will be done by the PCU and the technical support of SACP technical director and the IC. Eligible beneficiaries are buyers (rural assemblers/brokers, traders/exporters, and processors) jointly with farmers or producer cooperatives. It will be required that at least 30 percent of productive investments for subproject cost be covered by the beneficiaries in cash to ensure that producers and buyers have the necessary resource endowment. On average, the Project will finance approximatively US$70,000 in each subproject.

B. Results Monitoring and Evaluation

53. **The M&E mechanism will be based on the Results Framework (Annex 1) and the monitoring arrangements (Annex 3).** As part of the MoA, the PCU will coordinate closely with public and private stakeholders on M&E reporting for the Project. Monitoring results and project outcomes will be reported every six months in the project implementation progress reports. Moreover, the World Bank will support the Project over its lifetime, provide implementation support to ensure that the Project focus remains on results and outcomes, and assist in addressing project implementation issues as they occur. If corrections are necessary, the World Bank will discuss and agree on corrective actions with the Government.

54. **Under Component 4, the Project will monitor the agreed work plan and periodically update the Results Framework to reflect advances made in project implementation.** The M&E officer, who reports to the coordinator, is responsible for the M&E function in collaboration with the project's technical director. The M&E officer and the technical director will also be responsible for coordinating the midterm review and the final evaluation by external consultants and for organizing workshops to discuss and learn from the findings. During the first six months of the Project, the M&E officer with the technical director will prepare a detailed list of indicators, beyond those included in the Results Framework, to be updated periodically and to be the backbone of the periodic project reports. The institutional responsibilities of collaborating and participating agencies in project implementation and frequency of reporting will be defined in the PIM.

55. **The PCU will provide a list of indicators and the report format to key institutions** that will report on specific areas of their activities under the Project which they need to follow during project implementation.

56. **In addition to the M&E officer and the technical director, a corresponding staff member on the IC team will consolidate results from selected activities on a monthly basis.** In evaluating the Project, the PCU will establish a baseline during the first year of operation and will hire an independent M&E firm or an individual consultant to review the overall project progress and identify areas for correction at the midterm review. The M&E firm or consultant will assess the overall project impact and distill lessons of the operation at project completion.

57. **Particular attention will be given to the supervisor of works performed under Components 2 and 3 of the Project.** The rehabilitation of rural roads will be supervised by the Ministry of Transport (DNR) under Component 2 while the improvement of market support infrastructure will be supervised by the MoA (DNGR) under Component 2 (collection and packaging centers) and Component 3 (productive alliances business plans).

58. **An independent consultant will be responsible for the engineering and the supervision of the works to ensure the quality of the 300 km of roads to be improved and the construction of post-harvest facilities despite the security situation preventing a close direct monitoring by the World Bank.** Particular attention will be paid to the robustness and quality of the ToR for the consultant. Once the works are completed, another independent consultant will conduct a strong technical audit.

59. **Finally, monitoring will also be ensured by independent auditors** financed under the proposed project and recruited to monitor Government commitment.

Citizen Engagement in the Project Cycle

60. **The Project will include a citizen engagement review mechanism.** This mechanism will be expressed through consultations that measure the level of satisfaction of the population affected by the Project, feedback from beneficiaries in the selection of specific interventions (both TA and works), and empowerment of citizens who report satisfaction with the Project in the project area. Indicators selected are (a) the share of beneficiaries who feel project investments reflected their needs and (b) beneficiaries satisfaction with the public services offered by API-Mali OSS.

61. **The PCU will develop and implement a communication strategy.** The purpose of the communication strategy is to create wide awareness of the Project and its aims. The available media include posters and pamphlets, media programs, and workshops. The communications strategy (video, website, and radio) will also be used to create awareness of women's issues and encourage women's participation in project activities to benefit from its gender-focused aspect. The strategy also will outline mechanisms for disseminating summaries of key project implementation documents, which include activity planning and implementation, procurement, budgets, results, complaints, and appeals decisions.

C. Sustainability

62. **At the core of the design of this project is outcome sustainability.** The Project chose the value chains that have a huge potential for success and for which there is a growing demand in the medium to long term. As discussed under Section III (Project Description), there is a growing global demand for the products selected, but in Mali supply is constrained because of lack of access to production points. By providing access to the production areas, the Project will address the supply constraint.

63. **Furthermore, both the mango and animal feed value chains promise high returns for initial investments made in all of their segments.** Existing operators in the field have demonstrated that, once involved in the value chain, they saw the opportunity clearly, and their experience is that they are expanding their operations each year. Their experiences demonstrate that these value chains create their own dynamics, which will propel them toward more value added and expansion of their processing plants, including farm sizes. The fact that the Project will facilitate commercial farming adds to the future dynamism that can be anticipated from sustaining the value chains that will be supported by the Project.

64. **The GoM clearly has established its commitment to develop agribusiness** through its policy statements and strategies, especially its National Strategy for Agribusiness Development Government Action Plan (*Plan d'Action Gouvernemental*) for 2013–2018. Moreover, at the center of the Government's *Agropoles* Program is the development of agricultural value chains as the means to transform Mali's agricultural sector. Thus, the sustainability of the Government's commitment and the probability that the policy environment will improve are high.

65. **Beyond this project, API-Mali will continue to operate in the agribusiness sector** because part of its mandate will be to continue to attract and facilitate investment in the sector from both local and international sources. Through this project, API-Mali will strengthen its capacity to deliver on its mandate, which will enable it to facilitate the promotion of other value chains beyond this project.

66. **With regard to infrastructure sustainability, the Project clearly supports improving rural and feeder roads to reverse past neglect and lack of maintenance.** However, once the importance of these two value chains (especially mango export) to the national economy grows and is established, the Government will have its own self-interest in maintaining the roads. This project will not address the sustainability of rural roads. However, the World Bank will have a Development Policy Operation (Poverty Reduction and Inclusive Growth and Inclusive Growth Support Operation) and a new Rural Mobility Project (P160505) in Fiscal Year 2018 that will address the sustainability of the rural roads maintenance.

67. **The modality of the operation, maintenance, and management of the rehabilitated collection and post-harvest storage facilities will be recommended by the IC**, who will determine with the IFM the ownership and use of this market-support infrastructure. Most importantly, these structures are expected to generate income that will be used in their operation and maintenance. The feasibility study that will be conducted before undertaking these works will evaluate the income that can be generated from the services provided by these physical assets.

V. KEY RISKS

68. **The overall Project risk to achieve development objective is rated Substantial.**

69. **Political risks (High): Political instability.** The June 2015 Peace and Reconciliation Accord in Mali resulting from the Algiers Process is a sign of considerable progress in containing conflict and violence within the country. However, the accord is not expected to lead immediately to stabilization of the north. Recent trends also have seen a spread of conflict and violence spread farther south, disrupting access to basic services and markets for southern populations as well. To date, the Government's security apparatus has been unable to counter this trend. Thus, there is a real risk of growing fragmentation of groups and the reestablishment of local vigilante groups (as during the 2012 crisis) in the south. These groups could further destabilize the country, fueling different types of local conflicts over resources.

70. **The longer the conflict in the north lasts, the more it is expected to affect stability in the rest of the country.** The experience from 2011–2012 shows how quickly public support for the Government can shift. Reports of growing levels of insecurity in the southern regions, regular protests in Bamako, and growing crime levels in general, all indicate the risks presented by such a shift. The accord has required increased levels of intergovernmental fiscal transfers to all regions and minimum levels of representation of the northern provinces in the Malian state. The majority of the population may find it difficult to accept higher levels of resources flowing from south to north.

71. **To mitigate these risks, the project area proposed is by far one of the safest in Mali.** Security levels as defined by the UN Peacekeeping Mission in Mali (as of April 4, 2016) are given in table 2. In addition, emerging practice of operating in insecure environments has been reflected. For example, as mentioned in the M&E section, an independent consultant will be responsible for the engineering and the supervision of the works to ensure the quality of the 300 km of roads to be improved and the construction of post-harvest facilities despite the security situation preventing a close direct monitoring by the World Bank.

Table 2. UN Security Levels in Mali, April 2016

	Region	Security Level	Description
1	Segou	5	High
2	Koulikoro	2	Low
3	Tombouctou	5	High
4	Bamako	4	Substantial
5	Gao	5	High
6	Sikasso	2	Low
7	Mopti	5	High
8	Kidal	5	High
9	Kayes	2	Low

72. **Governance risks (High): Slow the pace of implementing reforms.** To achieve the twin goals, the Systematic Country Diagnostic highlights the need for serious governance reforms. However, the experience in 2013, which witnessed a rapid return to business-as-usual following elections, is a cause for concern. The current situation has further diminished the

Government's ability to move forward with key reforms. To mitigate this risk, the project design (as recommended at the Concept Note stage) did not undertake policy reforms.

73. **Fiduciary risks (Substantial) have a substantial probability of adversely affecting the PDO.** The main FM risk is that project resources may be diverted from intended purposes. It is also expected that delays occur in the reporting system and auditing. Another concern is the strength of the M&E system that will be put in place to follow up the co-financing of productive alliances. These FM risks will be mitigated by the recruitment of an additional FM staff. For efficiency, FM specialists in the PCU will strengthen ex ante and ex post control of funds allocated to partner implementing organizations. The scope of audit will include review of expenditures incurred by implementing entities. Several procurement risks have also been identified at the level of the project such as WAAPP-2A manual's scope partially covering SACP proposed activities, difficulty in drafting quality ToRs, and long delays in procurement process. These procurement risks will be mitigated by updating WAAPP-2A manual, appointing focal points to work with project stakeholders in defining and drafting ToRs, and establishing a close monitoring from procurement specialists (including the recruitment of one procurement assistant)..

74. **Environmental and social risks (Substantial).** Environmental risk is related to rehabilitation of rural roads and construction and rehabilitation of post-harvest facilities. Additional detailed explanations are provided in the Appraisal Stage Integrated Safeguards Data Sheet. Mitigation measures are described in the Environmental and Social Management Framework (ESMF), Resettlement Policy Framework (RPF), and Integrated Pest Management Plan (IPMP).

VI. APPRAISAL SUMMARY

A. Economic and Financial

75. Further details can be found in Annex 5.

Rationale for Public Financing

76. **Public financing of this project has three main justifications**: (a) the provision of public goods such as rural roads will be a major result; (b) Components 1 and 4 will support the Government in core public sector functions such as private sector promotion and fiduciary; and (c) gradual structural transformation of the agriculture and livestock sectors and strengthening of value chains will require public sector support to mitigate the impact of market failures.

Value Added of World Bank Support

77. **First, the World Bank Group has learned lessons from its long involvement in projects to develop agriculture and livestock private sector actors in Mali and in other countries, including productive alliance models.** The World Bank also has extensive experience (NARP, ATPPP, Regional Sahel Pastoralism Support Project [*Projet Régional d'Appui au Pastoralisme au Sahel*, PRAPS], FAPP, and WAAPP) in developing the mango value chain (more specifically pioneered by IDA, through the ACDP) and livestock activities, as well as in supporting key commodities that contribute to the animal feed industry, such as cereal

and oilseed production. The ACDP, a decade-long operation that closed in June 2015, testifies to this experience, and its key findings are used for this project.[38] Second, as a development bank, the World Bank Group can articulate funding issues in terms of technical problems and their solutions, which will be crucial to the project's success. Finally, the World Bank Group has the convening power that is critical to achieve the paradigm shift expected from the Project. Given the need to address coordination challenges among mango value chain actors and animal feed stakeholders, this paradigm shift could require years of gradual improvements.

Project Expected Benefits

78. **The Project is expected to generate substantial additional production by rural farming households of both mango for exports and animal products such as meat, milk, and eggs.** The Project finances TA to improve mango production, marketing, processing, and exports. The Project will also supply more quality inputs to support an increase in qualitatively improved animal feed production; and to ensure increased meat, milk, and egg production in the intervention area. Components 1, 2, and 3 will encourage investments in targeted value chains. Impacts are expected in the form of (a) improved yields; (b) reduction of harvest and post-harvest losses; (c) increased quality of production and outputs of first stage transformation; (d) increased outputs of animal feed and transformed mangos (increased industrial capacity utilization rate for mangos and oil mills, increased installed capacities for complex animal feed); and (e) boost in exports of agro-industrial production.

79. **Additional, intangible benefits will accrue from Components 1, 2, and 3.** The spot rehabilitation of 300 km of rural roads, the modernization of post-harvest facilities, and the provision of sanitary and phytosanitary equipment can be considered public goods. The increased cost-effectiveness of transportation of agricultural products and the reduction in post-harvest losses estimated at 10,000 tons annually are, among the expected positive returns to the national economy. To mention just a few of the many multiplier effects, additional jobs will be created; and the income distribution effect, food security, and nutrition will be enhanced. The proposed Subcomponent 1(b), Strengthen Institutional Capacity at API-Mali, in key agricultural and livestock value chains, will improve the country's visibility among investors, making Mali a more attractive investment destination. In turn, becoming an investment destination will make important contributions to, among others, the national economy, employment, tax collection, and poverty reduction.

Methodology

80. **The economic and financial analysis of Subcomponent 1(a) and Components 2 and 3 are based on the estimated incremental cash flows to different beneficiaries (smallholders and firms, including new jobs created and taxes).** The benefits generated from increased mango production and transformation, reduction in cereals post-harvest losses, and production and use of animal feed have been quantified. These benefits capture (a) the impact of the improved quality and quantity of mango and animal feed industries supply through TA inputs

[38] See the ACDP's Economic and Financial Analysis which covers mango production, mango processing, and cereals transformation, among others (ACDP ICR, 2015, World Bank).

and the associated increase in revenues to value chains actors and (b) the improvement of various infrastructure such as 300 km of rural road, post-harvest facilities, and sanitary and phytosanitary equipment in the project area, as well as corresponding price gains. The benefits derived from capacity building of farmers, producers, and other actors targeted at various levels of the value chains are important especially for the poorest and most vulnerable farmers because they are expected to be better equipped to produce and market efficiently, and, in turn, to improve their economic status. This expectation applies particularly to women and youth who are most vulnerable among the project beneficiaries.

81. **The selection of the infrastructure built and rehabilitated under Component 2 will be based on a cost-effectiveness analysis.** The criteria to be used to select the rural road sections to be improved will be the value of exportable mango accessible through the road section divided by the length of the road for all the sections making up the proposed 1,000 km. The value of mango was chosen over the volume because there are certain types of mangos, such as Kent or Keitt, that have a higher market value when exported and therefore generate more revenue. The proposed road sections will be ranked using the criteria value of mango per kilometer to select the highest ranking road sections with a total length of 300 km that has the highest value. The priority road sections totaling 300 km also will be tested against a multicriteria screening. This screening will ensure that the roads selected (a) are connected to principal road networks that lead to processing or exports facilities; (b) do not go through a basin already accessible through other sections; (c) avoid overlap with other donors' interventions; and (d) are validated by the IFM. For the selection of the collection centers to be rehabilitated, to prioritize existing centers the cost-effectiveness criteria will measure the utilization rate. For the new facilities to be built, the criteria will measure the potential utilization rate and size of the production basin.

82. **Benefits provided by Subcomponent 1(b) are neither quantifiable nor measurable.** These limitations hinder the objectivity of undertaking a comprehensive cost-benefit analysis at the project level. While the benefits expected from Subcomponent 1(a) and Components 2 and 3 can be easily and objectively estimated, the assessment of the benefits of Subcomponent 1(b) is more difficult and can be made based on a cost-effectiveness analysis alone.

Table 3. Results of the Economic and Financial Analysis

	Mango	Animal Feed	Whole Project
Economic Analysis			
Economic NPV 20 years (US$)	13,783,816	12,532,996	20,664,288
Economic IRR 20 years (%)	27.4	21.2	19.0
Financial Analysis			
Financial NPV 20 years (US$)	12,673,622	11,070,977	18,092,074
Financial IRR 20 years (%)	26.2	20.0	18.0

83. **Based on preliminary estimates, the average financial IRR of incremental flows to beneficiaries would be 26.2 percent in the mango value chain and 20.0 percent in the animal feed value chain.** For the economic analysis at the level of the whole project, the shadow price (opportunity cost) of unpaid labor was assigned a value of 50% of paid employment. With this assumption, the economic NPV reaches US$21 million (with a 10 percent discount rate) for an economic rate of return (ERR) of 19.0 percent.

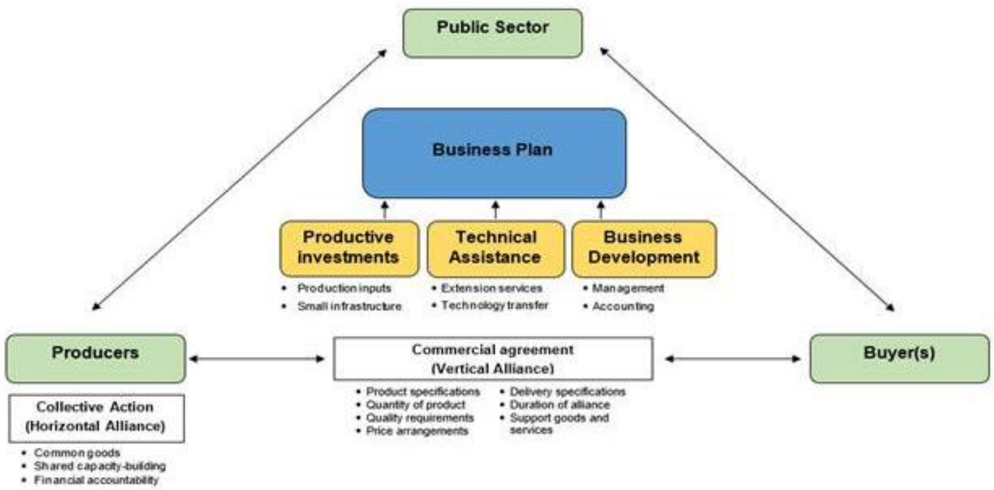
B. Technical

84. **The technical underpinning of the proposed SACP is based on the achievements made, experience gained, and knowledge developed through the IDA-financed ACDP.** The status and evolving factors in value chain market development in Mali were also assessed through consultations with important players and public agency representatives responsible for the development of the subsectors. The ACDP laid down the basis for a vibrant agro-industrial sector. The ACDP also established the foundations for commercial agriculture in the mango and livestock sectors in Mali by, among others, reducing product delivery times to international markets (multimodal), establishing winning partnerships between exporters and importers, building supportive commercial infrastructure, disseminating innovative technologies, and facilitating credit access for operators. The ICR assessment of the project design, implementation, and supervision helped determine the following technical approaches for the SACP.

85. **The SACP technical approach is also based on recognizing changes in demand and market conditions.** Historically, until the present day, livestock have been reared in open fields and sold in local markets or in the region. Due to urbanization and the accelerated expansion of the urban population, demand has increased for improved quality of meat and for processed meat. Over the last ten years, promising developments for both have been achieved. Now, demand is growing to change the production method and delivery of processed meat. The Project assessed the supply of animal feed in Mali and established that Mali has a readily available supply to support animal fattening and, in fact, exports animal feed to regional countries. Thus, both supply and demand are in place for the Project to support the intervention in livestock feeding.

86. **To ensure that project support will enable the growth of targeted industries (animal feed milling and mango transformation), the project approach is to create productive alliances.** Such alliances are economic agreements between a group of organized rural producers and a buyer (intermediary, wholesaler, and agro-processor) in which all assume risks, provide resources, and share the profits, so that the agreement can continue over the medium and long terms. Good alliances bring benefits, first, to producers and buyers and, by extension, to communities, rural municipalities, and consumers. The Project will provide matching grants to productive alliances subprojects in Component 3(b) to incentivize all parties to participate in such a scheme. To ensure transparency in the selection process, and that there will be a pool of candidates, the Project will first provide assistance to stakeholders that may participate in such alliances. Second, business plans will compete and be independently evaluated. The selected business plans will get funding from the Project dedicated to (a) TA (b) BDS, and (c) productive investments. The Project will fund up to 100 percent of the required TA and BDS, while it is expected that candidates will put some ‘skin in the game’ regarding productive investment financing (at least 30 percent). This technical design and approach is based on the successful use of similar competitive funds to finance productive subprojects in rural areas, mainly in Latin America (including Argentina, Bolivia, Colombia, and Peru).

Figure 2. Productive Alliances Model



Source: World Bank Group.

87. **Agribusiness and value chain development require multifaceted integrated support.** This multifaceted support will be implemented using the productive alliances approach. Selected business plans may include a broad range of improvement tools such as improving compliance; improving capacity in certified processing, packaging, and preservation; establishing a packaging facility and cold storage; training on international standards that improves quality to meet export standards; providing a logistic staging area; and facilitating contact with buyers. Through the selection process, the Project will ensure that in addition to demonstration, dissemination, and adoption of innovative technologies, developers will be incentivized to acquire and adopt the innovative technologies and techniques promoted. Particular attention also will be paid to reduction in post-harvest loss—improvement in conservation, processing, and packaging—in the business plans, as the dividends from such a focus are known to be very substantial. Externally, providing the necessary infrastructure, such as roads, is another important ingredient for success. The SACP tightly links its interventions around two agro-industrial segments that are intersections of several value chains. For example, productive alliances and supply contracts will drive the selection of the rural roads and post-harvest facilities to be rehabilitated.

88. **Establishment of financial accounts by project beneficiaries will facilitate their access to capital and bank credits.** The productive alliances accompaniment process will emphasize the improvement of beneficiaries' financial literacy and will encourage them to establish financial accounts. Establishing financial accounts will also support the banks' processing of loans because the accounts will enable the banks to assess financial accounts spanning several years to gauge the credit worthiness of their applicants. This attention to access to finance is an underlying focus of SACP Subcomponent 1(a) in addition to the strategic relationships that the Project will build with other projects. These include the Skills Development and Youth Employment Project (PROCEJ) for early-stage business plans and matching grants schemes, United States Agency for International Development (USAID) Financial Assistance TA for facilitated access to credit (Development Credit Authority Guarantee), Program to Support Economic Growth and Employment Promotion through the Private Sector in Mali

(*Programme d'Appui à la Croissance Economique et Promotion de l'Emploi par le secteur privé au Mali*, PACEPEP) for a matching grants scheme, and PRAPS for income-generating activities.

89. **The design of Component 2 favors the critical spot improvement and minimum rehabilitation approach over the full earthwork to enable access to the maximum number of orchards at minimum cost per kilometer.** Additionally, the rehabilitation will be procured through two procurement packages to make them more attractive and affordable to local contractors, thus contributing both to the development of the construction industry and to jobs creation. The technical design will be conducted during the rainy season (June to September) so that the consultant achieves the most accurate assessment of the road condition during the worst-case scenario as a baseline, so the consultant can propose the best suited spot improvement measures and minimize the risk of having to use poor technical studies during civil works which have a tendency to trigger cost overruns.

C. Financial Management

90. Further details can be found in Annex 3.

91. **The findings of various public financial management (PFM) studies and assessments[39] revealed some weaknesses and capacity shortages in the fields of FM and procurement in the country, including the MoA.** Therefore, both the GoM and World Bank agreed that fiduciary aspects of the Project will be executed by the existing CNRA FM team. FM arrangements of the Project will follow the same approach as the FM arrangements for WAAPP-2A, which are considered acceptable to the World Bank. The residual FM risk is rated Substantial. The WAAPP-2A team will be the World Bank's main counterpart and focal point for all the fiduciary aspects of the SACP.

92. **The WAAPP-2A FM team has significant experiences with the World Bank's FM requirements and procedures.** The WAAPP-2A FM team is composed of one FM manager, one principal accountant, and one assistant accountant with acceptable qualifications. The current approved FM procedure manual will be used and the accounting software TOMPRO will be updated to include the SACP. The residual FM risk has been rated Substantial. The unaudited Interim Financial Reports (IFR) are prepared quarterly and submitted to the World Bank 45 days after the end of the quarter, regularly in a form and substance that complies with the World Bank's FM requirement. Similar financial reporting arrangements will apply for the SACP.

93. The FM report of the last implementation support missions of the WAAPP-2A carried out in March 2016 did not reveal significant FM issues except for (a) the low execution rate of the 2015 AWP; (b) the weak performance of the internal auditor; and (c) the low disbursement rate. The WAAPP-2A FM performance was rated Moderately Satisfactory and the FM risk assessed as Substantial. Implementation of the SACP will not require specific FM arrangements except for the below four actions: (a) recruitment of one principal accountant; (b) the recruitment of one assistant accountant; (c) completion of the configuration of the accounting software to enable it to record new project transactions in the current computerized accounting system; (d)

[39] Including the Public Expenditure and Financial Accountability (PEFA) and the boosting budget execution exercises.

revision of the PIM; (e) the strengthening of the internal audit function through training and closer monitoring; (f) opening of a Designated Account (DA); and (g) recruitment of an external auditor for auditing the annual financial statement. These actions will be completed on time to help implement the SACP.

94. **Upon project effectiveness, transaction-based disbursements will be used.** The grant will finance 100 percent of eligible expenditures inclusive of taxes. Subject to the availability of the advancing of grant proceeds to DAs, a DA will be opened in a commercial bank in Bamako. The ceiling of the DA will be equivalent to XOF 1 billion, representing four months of forecasted annual expenditures expected to be paid from the DA. An initial advance up to the ceiling of the DA will be made into the DA, and subsequent disbursements will be made against submission of Statements of Expenditure (SOEs) reporting on the use of the initial/previous advance. The e-signature of the Withdrawal Application will be used by the PCU and the Withdrawal Application will be prepared monthly. The other methods of disbursing the funds (reimbursement and direct payment) also will be available to the Project. The minimum value of applications for these methods is 20 percent of the DA ceiling.

95. **The following actions have been set as dated covenants**: (a) the recruitment of a procurement assistant, a principal accountant and an assistant accountant no later than two months after effectiveness; (b) the customization (acquisition of a multi-project version) of a computerized accounting software capable of correctly recording and consolidating financial information and automatically generating financial statements (interim and annual) no later than three months after effectiveness; (c) the adoption of a revised Project Implementation Manual by strengthening it and complementing with the details of operation, controls, and reporting arrangements relevant to SACP no later than three months after effectiveness; and (d) the recruitment of an external auditor to audit annual financial statements no later than five months after effectiveness.

96. **Anticorruption measures.** The risk of irregularities and corruption within the Project activities is Substantial given the country context and the nature and implementation arrangements of the project activities. Corruption and poor service delivery are recognized as key challenges in Mali's public sector and, more specifically, for a project that involves several entities with relatively diverse interests. In addition, the lack of appropriate oversight and adequate operational tools could jeopardize project implementation.

97. **A strong fiduciary arrangement has been designed and established to mitigate these risks.** The following measures are envisaged to mitigate the risk of misuses, irregularities, and corruption: (a) the PIM will be strengthened and complemented with the details of operation, controls, and reporting arrangements; (b) the technical departments of the implicated ministries will be strengthened to better carry out the technical oversight of the IC's activities; (c) the MoA/PCU will implement certain measures to heighten transparency, such as providing information on the project status to the public and encouraging the participation of civil society and other stakeholders; and (d) overall oversight for this World Bank project will rest with the SC. It will provide technical oversight and support for the implementation of the program. Specific measures are incorporated in the project design to ensure smooth implementation and mitigate related risks.

98. **It is considered that the FM will satisfy the World Bank's minimum requirements under OP/BP 10.00 once mitigation measures have been implemented.** An FM action plan to enhance the FM arrangements for the Project is included in Annex 3. The overall FM risk rating for the Project is assessed as Substantial.

D. Procurement (Further details can be found in Annex 3)

99. Procurement for the proposed project will be carried out in accordance with the World Bank's 'Guidelines: Procurement of Goods, Works and Non-Consulting Services under International Bank for Reconstruction and Development (IBRD) Loans and IDA Credits and Grants by World Bank Borrowers', dated January 2011, revised in July 2014; 'Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers', dated January 2011; and 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated October 15, 2006, revised in January 2011. National Competitive Bidding (NCB) shall accord with procedures acceptable to the World Bank.

100. The World Bank team conducted a procurement assessment of the WAAPP-2A Coordination Unit which is embedded in the CNRA, an institution of the MoA that implements another project funded by IDA. The assessment was carried out by the World Bank procurement specialist based in Bamako during project preparation, in line with OP 11.00 and BP 11.00.

101. World Bank procurement experience in Mali has shown that (a) significant delays are experienced in procurement processing, with a significant part of the time spent on preparation of tender specifications, ToRs, and bids/proposals/evaluation processes and (b) procurement documents (Standard Bidding Documents, Request for Proposals, Bid Evaluation Reports, and Technical Evaluation Reports of proposals) tend to be of poor quality. These experiences have been factored into the design of procurement arrangements.

102. The overall procurement risk for the proposed project is considered Substantial. To mitigate the risks identified in the fiduciary assessment, an action plan was prepared during the appraisal mission in consultation with the client (Annex 3). With the implementation of the proposed measures of the action plan and the support of World Bank team, the overall procurement risk will be considered Moderate.

E. Social (including Safeguards)

103. An RPF has been prepared for the Project (August 2016 version) and approved by the National Directorate for the Control of Pollution and Nuisances *(Direction Nationale pour le Controle des Pollutions et Nuisances*, DNACPN), the national agency in charge of environmental impact assessments and pollution and nuisance control. The RPF has been disclosed in-country on September 29, 2016 and has been publicly disclosed on October 3, 2016, through World Bank Operations Portal 3.0 (formerly InfoShop).

104. The proposed project is expected to have a positive social impact. It will benefit the selected groups in direct and indirect ways. First, individuals who are involved in agriculture in the project's geographic area will gain from trainings and capacity-building activities, leading to greater productivity and earnings, as well as access to new all-season roads and the acquisition of

goods and better post-harvest facilities. Second, selected/targeted farmers, traders and producers organizations, and professional and inter-professional organizations of the value chains that will contribute to targeted segments will be able to raise the quality, governance, and sustainability of their institutions and increase their capacity for generating revenue for their members.

105. The Project will have a positive impact on gender in Mali. Rural entrepreneurship is, for instance, an excellent mechanism to involve women because of their potential in this area, particularly in the transformation of agricultural products. At least 40 percent of rural entrepreneurs, farmers, and enterprises supported by the Project are expected to be women.

106. This project builds on continuing consultation and communication among stakeholders; public sector (line ministries and departments, agencies, and local authorities); private sector (farmers, traders, producers, industries, professional, and inter-professional organizations); and civil society. Various stakeholders are included on the SC, with different roles and responsibilities (as described in the project implementation arrangements). All of these stakeholders were strongly involved during project preparation and their inclusion on the SC is an additional indication of their commitment to the Project. The preparation of this project has already enabled the establishment of communication bridges between the Government, the private sector, and civil society.

107. The potential negative social impacts of this project, which could arise from the rehabilitation or construction of infrastructure, are likely to be site specific and easily mitigated. These impacts, which could emanate from either or both value chains of the Project, could arise from the: (a) rehabilitation of rural roads and (b) rehabilitation and construction of post-harvest facilities. The potential adverse social effects are expected to be the loss of lands, the loss of fields or loss of access to assets (such as planted trees/crops), and the loss of livelihoods and sources of income.

108. In the course of implementing the SACP activities, all necessary measures complying with the World Bank Operational Policy on Involuntary Resettlement (OP/BP 4.12) will be taken to reduce resettlement and minimize the temporary use and acquisition of valuable lands. These mitigating measures will, by attentive examination of implementation options: (a) minimize displacement and (b) provide a mechanism of compensation. The Project will, to the extent possible, attempt to prioritize to the fundamental objective of avoiding and minimizing displacement wherever possible. In locations in which displacement will be necessary, the compensatory mechanism will be triggered for affected persons who meet the eligibility criteria.[40]

109. Consequently, no direct or indirect long-term negative impacts are anticipated from the implementation of the Project. The PCU will hire an environmental and social safeguards specialist as needed to ensure the preparation and implementation of the Resettlement Action Plans (RAPs), should they become necessary. The budget for this recruitment, related training, and other activities has been integrated in the project costing.

[40] The eligibility criteria of persons affected by the project (PAP) will be clearly defined in the RAP.

F. Environment (including Safeguards)

110. **Environmental Assessment policy (OP/BP 4.01) is triggered and the Project is rated 'B'.** While the Project will include activities that will positively affect the environment, the rehabilitation and construction of infrastructure as well as the increase in industrial activity and intensification of agricultural production may have adverse impacts on soil, water, air quality, flora, and fauna. An ESMF has been prepared to ensure that the environmental and social concerns of the Project activities are properly considered from the planning phase through to the implementation and exploitation phases.

111. **Negative impacts could include, among others, use of chemicals (pesticide, insecticide),** health risk for rural population, contamination of soils and surface water, waste generation, increased noise due to machines and vehicles, dust pollution, destruction of marketing and drying areas, accident risks, proliferation of mosquitoes, and temporary obstruction of roads. Such adverse impacts, however, would be site-specific and fairly easy to mitigate. More specifically, in addition to the Environmental Assessment, the Project triggers the following safeguard policies:

(a) **Pest Management (OP/BP 4.09).** As part of the productive alliances model, subprojects may finance (in the co-financing part) pesticides, fertilizers, or application equipment. As part of the TA to farmers, cooperatives, traders, and processors, all beneficiaries will receive, trainings that include the promotion of integrated pest management (IPM) practices, particularly in mango production areas to fight fruit flies. An IPMP has been prepared.

(b) **Physical Cultural Resources (OP/BP 4.11).** Rural roads improvements and other civil works along the selected corridors could affect cultural and historical heritage. The ESMF includes the appropriate mitigation measures (chance find procedures) as well as clauses that contractors must implement in case cultural relics or archaeological remains are discovered during the works.

112. **The ESMF provides guidance for the rating of all project activities by the CNRA (WAAPP Coordination Unit) before their financing.**

(a) **Category 'B'** refers to activities with substantial environmental and social impacts. These activities will require the preparation of an environmental and social impact assessment (ESIA) in accordance with the Malian law and World Bank requirements. This category is expected to include all rural road improvement works.

(b) **Category 'C'** refers to activities with minor environmental and social impacts. These activities will require the preparation of an environmental and social management plan (ESMP). Based on the ESMF, the ESMP will detail the measures to tackle potential negative impacts. Category C is expected to include all post-harvest facilities works as well as the acquisition of equipment and assistance to expand orchards.

113. The ESMF details a series of measures to reinforce the capacities of the involved institutions and to ensure that appropriate mitigation measures will be in place for each activity.

These measures are to (a) recruit an environmental and social specialist within the PCU responsible for screening all activities and drafting of the ESMP; (b) realize an ESIA for all activities that will have substantial environmental and social impacts; (c) build capacity of and train all stakeholders involved in SACP implementation; (d) organize meetings among local, regional, and national stakeholders; (e) draft an Environmental and Social Manual of Procedures; and (f) prepare a code of practice regarding use of phytosanitary products.

114. The ESMF (May 2016 version) and IPMP (August 2016 version), which were prepared in full compliance with the national and World Bank environmental and social safeguard policies and guidelines, have been reviewed and approved by the DNACPN, the national agency in charge of environmental impact assessments and pollution and nuisance control. They have been disclosed in-country on September 29, 2016 and have been publicly disclosed on September 30, 2016 through World Bank Operations Portal 3.0 (formerly InfoShop).

G. World Bank Grievance Redress

115. Communities and individuals who believe that they are adversely affected by a World Bank (WB)-supported Project may submit complaints to existing Project-level grievance redress mechanisms or to the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are reviewed promptly to address Project-related concerns. Project-affected communities and individuals may submit their complaints to the WB's independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of WB noncompliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

Country: Republic of Mali
Project Name: Mali Support to Agro-Industrial Competitiveness Project (P151449)

Results Framework							
Project Development Objectives							
PDO Statement							
To increase the processing of agricultural products for targeted value chains in the selected geographic area.							
These results are at	Project Level						
Project Development Objective Indicators							
		Cumulative Target Values					
Indicator Name	**Baseline**	**2017**	**2018**	**2019**	**2020**	**2021**	**End Target (2022)**
1. Volume of processed mango output marketed by project-supported beneficiaries (tons per year)	6,000[a]	6,000	7,000	8,000	10,200	13,700	16,000
2. Volume of processed feed output marketed by project-supported beneficiaries (tons per year)	345,000[b]	345,000	350,000	360,000	375,000	388,000	395,000
Intermediate Results Indicators							
		Cumulative Target Values					
Indicator Name	**Baseline**	**2017**	**2018**	**2019**	**2020**	**2021**	**End Target (2022)**
Component 1							
1. Volume of mangos exported (tons per year)	38,800	39,000	40,000	41,000	43,200	46,700	49,000
2. Facilitation program established at API-Mali	N	Y	Y	Y	Y	Y	Y
Component 2							
3. Mango producers benefiting from better access to marketplace (Number)	0	0	0	1,000	3,000	4,000	5,000

4. Commercial facilities operational (Number)	0	0	0	3	6	7	7
Component 3							
5. Commercial infrastructure modernized or built (Number)	0	0	0	5	10	10	10
6. Producer organizations that maintain or improve their commercial relations (alliances) for at least two productive cycles (Percentage)	0	0	0	0	60	70	75
Women participation							
7. Females among direct project beneficiaries (Percentage)	0	30	35	40	40	40	40
Citizen engagement							
8. Beneficiaries who feel project investments satisfied their needs through the public services offered by API-Mali OSS (Percentage)	0	50	55	60	65	70	70

Note: a. 6,000 tons of mango puree and concentrate (other products such as dried mango or juice are still marginal).
b. 250,000 tons of cotton cakes (oil seeds), 75,000 tons of complex animal feed, and 20,000 tons of bran.

Indicator Description

Project Development Objective Indicators				
Indicator Name	**Description (indicator definition and so on.)**	**Frequency**	**Data Source/Methodology**	**Responsibility for Data Collection**
1. Volume of processed mango output marketed by project-supported beneficiaries	Increase in output volume produced by industries in the mango value chain due to a combination of expanding capacity and better use of existing capacities. Additional expected output is 10,000 tons in the mango value chain due to project TA and increased accessibility to mangos.	Annual	Direct measurement of processed mango output by the PCU together with the IFM, MoA, and MoTRADE/ MoID statistics Data triangulation (PCU)	Project M&E (PCU) IFM consolidates statistical data
2. Volume of processed feed output marketed by project-supported beneficiaries	Increase in feed output volume produced by industries in animal feed value chain due to a combination of capacity expansion and better utilization of existing capacities Additional expected output is 50,000 tons (for example, 35,000 tons of complex feed and 15,000 tons of oilcakes) in the animal feed value chain due to the new capacities in the complex animal feed industry and the increased utilization rate of oil mills.	Annual	Direct measurement of processed animal feed output by PCU together with FIFAM, FEBEVIM, OPI, FENALAIT, FENAPHAB, DNI, DNPIA and DNSV statistics Data triangulation (PCU)	Project M&E (PCU) DNI consolidates statistical data

Intermediate Results Indicators				
Indicator Name	**Description (indicator definition and so on.)**	**Frequency**	**Data Source/Methodology**	**Responsibility for Data Collection**
Component 1				
1. Volume of mangos exported	Volume of mangos exported (fresh or processed), increased due to productive alliances, training smallholders to improve harvest practices and to access finance, training rural assemblers, and supporting certification and systems to meet market requirements	Annual	Direct measurement of exported mangos by PCU together with the Directorate General of Customs, IFM, MoA, and MoTRADE/MoID statistics Data triangulation (PCU)	Project M&E (PCU) IFM consolidates statistical data.
2. Facilitation program established at API-Mali	Results-based indicators of API-Mali performance. Justification shall be acceptable to the World Bank Group for the following: • API-Mali Strategy approved (FY16) • At least five key staff recruited (FY17) • Enquiry handling standard operating procedures is designed and adopted (FY18) • Improved transparency and availability of relevant information for investors by a compared assessment of online information available by designing and implementing a sectoral website under API-Mali (FY18) • Investor Relationship Management System is established (FY19)	Annual	API-Mali reports progress on indicators to Project M&E (PCU)	Project M&E (PCU) API-Mali provides supporting evidence on completion
Component 2				
3. Number of mango producers benefiting from a better access to marketplace	Number of mango producers who will benefit from a better connection to market owing to the rehabilitation of 300 km of roads Roads rehabilitation will improve all-season connection between orchards and marketplaces to ensure that produced mangos have a commercial exit and are not wasted	Annual (YR3, YR4, YR5, and YR6)	Direct measurement of number of producers in areas served by the roads on which works have been completed in compliance with DNR requirements according to technical specifications in the construction contracts Data triangulation (PCU)	Project M&E (PCU) DNR is in charge of the periodic supervision of construction works while the IFM consolidates statistical data on producers affected.

Intermediate Results Indicators				
Indicator Name	**Description (indicator definition and so on.)**	**Frequency**	**Data Source/Methodology**	**Responsibility for Data Collection**
4. Commercial facilities operational	Number of commercial infrastructure (storage facility, collection centers, and packaging centers) modernized or built under the Project Opportunities have been identified in the mango sector (seven collection and conditioning centers)	Annual (YR3, YR4, YR5, and YR6)	Post-harvest facilities have been completed in compliance with DNGR requirements according to technical specifications in the construction contracts Approval by the DNGR (MoA)	Project M&E (PCU) The DNGR is in charge of the periodic supervision of construction works
Component 3				
5. Commercial infrastructure modernized or built	Number of commercial infrastructure (storage facilities) modernized or built under the Project Opportunities have been identified in cereals and oilseeds value chains (10 modern storage facilities)	Annual (YR3, YR4, YR5, and YR6)	Post-harvest facilities have been completed in compliance with the DNGR requirements according to technical specifications in the construction contracts Approval by DNGR (MoA)	Project M&E (PCU) The DNGR is in charge of the periodic supervision of construction works.
6. Percent of producer organizations that maintain or improve their commercial relations (alliances) for at least two productive cycles	Percentage of supported organizations that meet the condition, which is to maintain their alliance with the original buyer or improve their alliance with a new buyer (over two productive cycles)	Annual (YR4, YR5, and YR6)	Direct measurement through productive alliances Periodic reports	Project M&E (PCU)
Woman participation				
7. Percent of females among direct project beneficiaries	Percentage of females in the direct beneficiaries. Direct beneficiaries are people or groups who directly derived benefits from the Project.	Annual	Periodic reports from PCU M&E	Project M&E (PCU)
Citizen Engagement				
8. Beneficiaries who feel project investments satisfied their needs	Coordination and devolution of responsibilities between central and regional/local authorities in place, including mechanism for citizen	Annual	Beneficiary survey for each component is completed annually and results are made public.	Project M&E (PCU)

Intermediate Results Indicators				
Indicator Name	**Description (indicator definition and so on.)**	**Frequency**	**Data Source/Methodology**	**Responsibility for Data Collection**
through the public services offered by API-Mali OSS	engagement and public-private dialogue as part of M&E. Indicators selected are (a) the share of beneficiaries who feel the project investments reflect their needs and (b) beneficiaries' satisfaction with the public services offered by API-Mali OSS.		Publication of annual results	

Annex 2: Detailed Project Description

Republic of Mali: Support to Agro-Industrial Competitiveness Project (P151449)

1. **Despite favorable growing conditions and diversity of crops and production techniques, agriculture in southern Mali remains associated with high levels of poverty, primarily subsistence farming (with the exception of cotton production).** Using the traditional (consumption) poverty measure, Sikasso is the region with the highest incidence of poverty (83.2 percent). If Mali is to advance on the path of economic transformation, agriculture—as the sector employing the most people in Mali's economy and also as the largest productive sector—has a central role. Advancing on this path will mean increasing the private sector's size and dynamism in the economy, improving the efficiency of production, diversifying products, and improving their connection to markets.

2. **The SACP is set in the context of strong Government support to the agricultural sector.**[41] An increasing share of the national budget is dedicated to agriculture (15 percent versus 10 percent 10 years ago). The Government has recognized the strategic role of agriculture in economic transformation by identifying potential agri-based growth poles in many parts of the country. The Government's strategy is very ambitious and broad-based. The Project will support the GoM in the initial stages of implementing its strategy. For instance, the SACP will strengthen the Government's capacity to identify and operationalize opportunities; and will create general conditions for the private sector-based development of agriculture through, for instance, strengthening a climate of investment-friendly policies and stronger public-private dialogue.

3. **Two emerging value chains in the agricultural basin of Sikasso-Bamako-Koulikoro offer strong prospects of economic, private sector-led development around processing and value addition activities: (a) mango and (b) animal feed.** The Project will focus on supporting these two value chains. The economic and financial analysis of the ACDP ICR revealed that mango production and cattle fattening, respectively, are the second and third most profitable undertakings in Mali financed under the Project.[42] Building on the ACDP and other World Bank experience, these two value chains are deemed major sources of potential for agro-industrialization in the coming decades through (a) improving productivity, (b) reducing post-harvest losses, (c) increasing the processing of agricultural products, and (d) facilitating access to higher value markets for both fresh and processed products. The selected area is where the Project is expected to have sustainable major impacts on the overall performance of the selected

[41] Strategic Framework for Growth and Reduction of Poverty (*Cadre Stratégique de Croissance et de Réduction de la Pauvreté)* (2012–17), Law of Agricultural Orientation (*Loi d'orientation agricole)* (2006–25), and related laws; Agricultural Development Policy (*Politique de Développement Agricole*, PDA), passed on August 1, 2013, promotes modern, competitive, and sustainable, agriculture with a 10-year horizon (and a review every 5 years); National Program for Agricultural Investment *(Programme National d'Investissement du Secteur Agricole)*, passed in June 2015 by the FNAA, passed in July 2010, which finances support to agricultural and agriculture-related activities.
[42] The ACDP, on which this operation builds, provided economic and financial analysis of 18 agricultural value chains. The IRR analysis done on investments of these 18 value chains (without including subsidies) revealed that mango production and cattle fattening are the second and third most profitable undertakings, respectively, in Mali. The first most profitable value chain is potato. However, this project will not support potato since this value chain has been handed over to the WAAPP for support (World Bank. 2015. *ACDP Implementation Completion and Results Report*. Washington, DC).

value chains. While the region is characterized by a favorable natural endowment for agricultural production and, most importantly, for the crops under selected value chains, the Sikasso region is also associated with high levels of poverty[43] and subsistence farming.

4. **The Project will target one agricultural production basin (Sikasso-Bamako-Koulikoro).** This production zone was selected because it is the location in which the Project is expected to have sustainable major impacts on the overall performance of the selected value chains. The Sikasso region is characterized by a favorable natural endowment for agricultural production and, most importantly, for the crops under the two value chains. However, Sikasso region also has Mali's highest poverty level and a predominance of subsistence farming.

5. **To support the development of the mango and animal feed value chains, in the agricultural area of Sikasso-Bamako-Koulikoro, a number of formal and/or agro-industrial entry points in the form of private operators and organizations have been identified.** Through Government-led consultations, key representatives of private sector operators have prioritized the binding constraints that they face in improving their competitiveness. The Project will strengthen their technical and commercial capacity to realize their full growth potential; enhance existing and future processing capabilities; and increase their access to domestic, regional, and international markets. Additional major areas of improvement identified during the consultations were the access to production areas, the quality of local supply, and the absence of functioning supportive infrastructure. The Project will provide support to address this infrastructure bottleneck through improving rural and feeder roads and upgrading/modernizing market-support infrastructure services. Finally, the Project will seek to improve institutional and fiduciary capacity of API-Mali and the MoA.

6. This project builds on the experience and lessons learned from the following programs:

(a) **Previous and current World Bank projects.** They include the ACDP (2006–2015), which has created a vibrant agro-industrial sector comprising exporters, artisanal processors, and transformational industries. With the improvement of approximately 1,100 km of rural roads, the construction of four collection facilities for farmers, and three commercial infrastructure for exports, the ACDP has established the foundations of commercial agriculture in the mango-papaya and livestock (meat and milk) sectors through, among others, reducing delivery times of products to international markets (multi-modal),[44] establishing winning partnerships between exporters and importers, building adapted commercial infrastructure, disseminating innovative technologies, and facilitating credit access for operators. The resulting market growth (exporting fresh products, processed product, and processing plants) has led to an imbalance between supply and demand.

(b) Other projects include Fostering Agricultural Productivity Project in Mali (2010–2017), which aims to improve agriculture productivity and farmers' organizations capacities; National Rural Infrastructure Project (2001–2005), which enabled an

[43] Using the traditional poverty measure (consumption), the Sikasso region has the highest poverty incidence (83.2 percent) (World Bank. 2015. *Priorities for Ending Poverty and Boosting Shared Prosperity: Mali Systematic Country Diagnostic*, Washington, DC: World Bank).
[44] Road, rail, and sea.

irrigation area development and management program; WAAPP (2007–2016), which fosters agricultural productivity at the subregional level through investments in research and production technologies; PRAPS (2015–2021), a regional project to support pastoralism; and IFC investments in the agricultural sector. The Mali Transport Sector Project has improved over 2,400 km of rural roads in the high agricultural potential zone, with the majority of the investment being done in Sikasso and Segou.

(c) The National Directorate of Roads, which coordinates and implements the National Strategy for Rural Transport is responsible for the consistency and overall quality of all road infrastructure projects and programs in Mali.

(d) Finally, the Project will benefit from ongoing and past projects of partners, such as Spanish Agency for International Development Cooperation, which has supported the cashew value chain for five years in the Sikasso region; Canadian International Development Agency, which supports value chain development through the Project to Support Agricultural Sector (*Projet d'Appui aux Filières Agricoles*); Danish International Development Agency, which fosters investments in livestock, maize, and fruit and vegetable value chains with PACEPEP; European Union (EU), which has projects on the mango fly; and USAID, which supports intraregional trade of agricultural products with West Africa Trade and Investment Hub (WATIH).

7. Priority activities identified for this Project expand on the Competitiveness Plans (*Plans de competitivité filière*) recommendations implemented under the ACDP for the mango and cattle/meat/fodder value chains and the ACDP's ICR Economic and Financial Analysis. The Project will seek relatively organized and potentially creditworthy actors as anchors, then forge with (or around) them productive alliances with smallholders and farmer cooperatives to improve the supply. To maximize the economic benefits derived from each value chain, better integration of local suppliers (primary sector) around agro-industrial units (secondary sector) and support to private sector providers of agribusiness services (tertiary sector) will augment revenues and lower the costs to actors. The Project also will facilitate access to new markets and strengthen the bonds with existing markets.

8. **The objective of the Project is to increase the processing of agricultural products for targeted value chains in the selected geographic area.** 'Processing' is defined as the conversion of harvested agricultural products into valuable, marketable products. 'Targeted value chains' refer to mango and animal feed. The 'geographic area' is the agricultural production basin of Sikasso-Bamako-Koulikoro in southern Mali.

9. With an estimated SDR 21.50 million (US$30 million equivalent), the Project will support the GoM strategy through four components:

(a) Component 1: Expand Mango Processing and Investment Opportunities (SDR 3.90 million, equivalent to US$5.5 million)

(b) Component 2: Improve Access to Mango Production Areas (SDR 7.75 million, equivalent to US$10.8 million)

(c) Component 3: Foster Animal Feed Production (SDR 6.90 million, equivalent to US$9.6 million)

(d) Component 4: Strengthen Project Implementation (SDR 2.95 million, equivalent to US$4.1 million).

Component 1: Expand Mango Processing and Investment Opportunities (SDR 3.90 million, equivalent to US$5.5 million)

Component 1 will support agribusiness diversification through mango processing and investment promotion.

Subcomponent 1(a): Promote Mango Processing and Exports (SDR 1.60 million, equivalent to US$2.3 million)

10. Representing US$35.5 million in exports in 2015,[45] mango is already one of Mali's most important agricultural export product.[46] The product has a clear comparative advantage in international markets, based on two factors:

(a) High quality (the fruits are completely chemical-free) and the varieties produced in Mali (Kent, Keitt, and Amelie) are in high demand in European markets

(b) The timing at which the Malian mangos enter the market (when the main producing countries have finished supplying the market or have yet to start their harvests). This strategic timing potentially provides the Malian producers and exporters an excellent window of opportunity to sell large quantities and command a good price.

11. The ACDP supported the processors and exporters of the mango value chain. The ACDP was instrumental in increasing the combined export volume to Europe, the Maghreb, and ECOWAS region from 10,500 tons in 2008 to 38,800 tons in 2015. Focusing on existing anchor investors, a huge potential could be unlocked in this value chain to fully realize the underused processing and export capacities. At present, approximately only 10 percent of total production (600,000 tons, of which 57 percent are exportable varieties) is marketed. This low marketed level testifies to the huge untapped potential to increase market penetration. The main challenge to developing the mango value chain is the limited reliable access to quality raw material to support the expansion of processing activities.

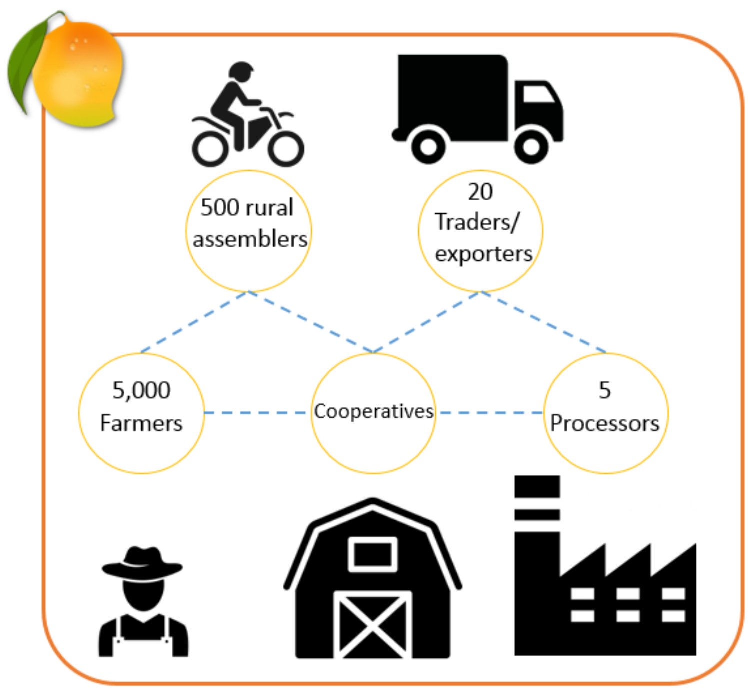
12. In addition to infrastructure gaps, the five main challenges to mango value chain development are (a) inefficiencies along the mango value chain due to inadequate integration of actors and failed coordination among stakeholders; (b) limited reliable access to quality raw material of exportable mango varieties to support secondary sector expansion; (c) limited knowledge of international sanitary, quality, and technical standards, and poor implementation of modern practices; (d) lack of private sector participation in agribusiness services; and (e) limited financial and banking literacy and borrowing capacity in the mango value chain.

13. The expected benefits of Component 1 are to (a) increase the supply of exportable mangos; (b) reduce post-harvest losses due to better collection practices; (c) increase processing capacities recovered and/or installed; and (d) generate responsible private investments in mango production and processing.

[45] Fresh and transformed mango.
[46] After livestock and cotton (US$311 million). Total exports of goods and services amount to US$3.3 billion.

14. In recent years, Malian mango characteristics (quality/varieties and seasonality) have generated investor interest in fresh exports as well as in transformation (pulp, dried mango, and juice), for which Mali now has a total installed processing capacity of approximately 85,000 tons.[47] Recovering this installed capacity means that preventing orchards from getting too old is important. Thus, ensuring their continuous renewal is essential. However, the commercial and financial capacities of Malian farmers to guarantee renewal are limited. Moreover, orchard densification or expansion takes time (four to six years) and requires a specific longer-term investment strategy. This pragmatic approach must be complemented by the rehabilitation of rural roads (Component 2) to physically connect orchards to collection facilities and processing units to take advantage of the large volumes of mangos that remain on farms.

Figure 2.1. Key Mango Value Chain Actors



15. The Project will assist existing farmers to increase mango production to the limit at which the intended growth through densification or expansion can be sustained with their current and forecasted cash flows. Support through TA, consultant services, and trainings to industrial and market-oriented actors in the mango value chain will help strengthen linkages among value chain actors. Each category of actors (nurserymen, farmers, rural assemblers, processors, and exporters) as well as the IFM, farmer cooperatives, and agro-industries, will benefit from technical support targeting an increase in processing and export of fruits.

16. The order of activities to be conducted will be assessed based on the needs of exporters and processors and the actual capacity of local suppliers. Contractual agreements will come at

[47] Fresh mangos input volume. All of this installed capacity is for puree and concentrate. (Other mango product capacities are marginal, for example, 500 tons of installed capacity for dried mango.) Interviews with mango processing company operators and owners in 2015 and 2016.

the stage at which local sourcing capacity is able to commit. Activities will include the following:

(a) Improving nurseries management and establishing a certification process, through the provision of technical advisory services. This will help farmers know which variety to buy to increase their share of exportable varieties;

(b) Facilitating the financing of private sector-led orchard rehabilitation, improvement, and expansion, through the provision of technical advisory services, and extension and business development services (BDS);

(c) Facilitating rural assemblers/brokers in the dissemination of good farming practices and data collection, through the provision of training. This will help enable a more efficient logistic of mango collection;

(d) Providing technical advisory services and training to (i) enhance knowledge of export markets and facilitating the adoption of sanitary and phytosanitary, food safety, bio and hazard analysis critical control point certification and (ii) strengthen traceability, logistics, and pest treatment systems (including using ICT-based solutions). This will help meet export markets' quality and sanitary requirements (including fight against fruit fly[48]);

(e) Strengthening the IFM statistical capabilities and strategic ownership of the value chain development and help farmers to consolidate into formal OHADA cooperatives.

17. Subcomponent 1(a) will support up to 5,000 farmers to sell their harvests with the support of 500 rural assemblers; to establish sales contracts with 20 traders, exporters, and processors; to improve quality and processing efficiency to meet market requirements; and to catalyze market expansion by strengthening market systems and bank financing as a means to invest in orchard densification or expansion, thus expanding exports.

Subcomponent 1(b): Strengthen Institutional Capacities at API-Mali (SDR 2.30 million, equivalent to US$3.2 million)

18. Subcomponent 1(b) will aim at generating private investments in horticulture and animal feed value chains through a results-based Memorandum of Understanding (MoU) with API-Mali, and will finance experts, targeted TA, consultant services, trainings, and IT development and equipment at API-Mali. Through this mechanism, it will address the observed constraints to the promotion of vibrant value chains: (a) weak and ineffective investment promotion efforts and (b) lack of predictable processes for investors (compounded by the negative perception of Mali as an investment destination).

19. Subcomponent 1(b) will finance a number of activities to improve API-Mali services (TA, consultant services, trainings, IT, and equipment). API-Mali, the National Investment Promotion Agency, has been in decline since the 2012 coup ended the World Bank's support program. Recent independent evaluations by World Bank staff and others identified the need to

[48] As per Government's Action Plan on Mango Exports to the European Union

substantially change the agency's structure and staffing. In addition, after four years with extremely limited funding, the agency has to start to rebuild its capacities and role as the nation's lead investment promotion structure. The objectives are that (a) both existing and new investors understand Mali's potential to meet their strategic objectives in the horticulture, oilseeds, cereals, meat, and milk sectors; (b) these investors receive efficient and transparent services during and beyond their investment periods; and (c) the investment climate is such that all GoM stakeholders encourage expansion and new investments.

20. The expected benefits of Subcomponent 1(b) are (a) private investments generated in the mango value chain and animal feed sector; (b) additional private investments and financing catalyzed in horticulture and livestock value chains; (c) strengthened institutional capacity at the central and local levels to improve resource allocations to operationalize Mali's commercial agriculture program; (d) improved transparency, predictability, and compliance of agriculture investments; and (e) stronger citizen and beneficiary engagement in the implementation of Mali's commercial agriculture program.

21. Through a results-based MoU with API-Mali, Subcomponent 1(b) will finance experts, targeted TA, consultant services, trainings, IT development and equipment at API-Mali to generate private investments in the horticulture and animal feed value chains. The activities are based in API Mali's recently-approved business plan (please see box below) and will involve the following:

(a) Recruiting at least five highly qualified staff for key positions to ensure that the agency is capable of delivering the ambitious and necessary mandate contained in its business plan

(b) Implementing ISO 9000 quality management certification for API-Mali OSS in Bamako

(c) Arranging training sessions to convey and enhance the skills needed by staff to carry out their roles in a more efficient and results-oriented manner

(d) Improving Mali's image as an international agribusiness destination and generating and converting to operational status a pipeline of serious agribusiness investors in the Project's targeted value chains.[49] This will be done by

- using surveys to research the key characteristics and issues pertaining to priority sectors (dairy, beef, animal feeds, oil seeds, cereals, fruits, and vegetables), in addition to competitors' and investors' perceptions, to create compelling value propositions to use in addressing target investors and identify priority reforms that would have the greatest impact on improving sector attractiveness;
- preparing and carrying out proactive outreach campaigns targeting pre-selected potential investors in the identified priority sectors and subsectors in specific

[49] The Mali Investment Climate Program 3 (IC3) financed studies for five key value chains representing important sources of potential investments relevant for the project: (a) horticulture, (b) oilseeds, (c) cereals, (d) meat, and (e) milk. Mango processing/fresh exports, contracting with smallholders in cereals and oilseeds, and beef are identified as top priorities.

markets (for example, a Malian delegation of mango exporters for supply chain development with EU buyers) with in-market consultants;

- organizing targeted events for selected markets, the most important of which will be an International Investor Forum in Bamako in 2017, in addition to a number of smaller preparatory forums preceding the forum inside and outside Mali;
- recruiting a reputable communications company to work with API-Mali and GoM stakeholders at the highest level to rebuild Mali's image among international investors, especially in light of the recent developments in the security situation;
- developing an aftercare program (Aftercare Services) to support existing local and international investors who exhibit expansion potential (including the acquisition of an Investor Tracking System); and
- upgrading the API-Mali website and corresponding promotion materials.

Box 2.1. API-Mali Business Plan

The 2016–2018 business plan for API-Mali, drafted with support from the World Bank Group under the IC3 Program, was approved by the API-Mali board in May 2016.

- The business plan is based on the recent context of the country and the agency, mainly the political unrest and security incidents that have led to API-Mali's funds being dramatically cut and to existing and potential FDI largely drying up.
- It builds on previous work carried out under the IC3 Program, namely API-Mali rapid institutional assessment and HR audit. It also conducted a benchmarking of regional IPAs.
- These exercises indicate the scale of the challenges facing API-Mali. The key issues identified are staffing, budget and funding, mandate, and institutional status.
- The business plan has five strategic objectives:
    - Improve the image of Mali through web, social media, public relations, and events in targeted sectors and geographies and generate leads in both priority and non-priority sectors.
    - Generate and facilitate a pipeline of serious investors in targeted sectors and facilitate them to operational status as well as supporting expansion investments through an aftercare program.
    - Ensure that investors can access land in a transparent, responsible and timely manner.
    - Advocate for a better business environment by coordinating the activities of appropriate ministries, departments, and agencies to mobilize Public Private Dialogue platforms to advocate for reform in priority sectors.
    - Expand and upgrade the One Stop Shop services to regions and upgrade provision of support to start-ups and SMEs through the use of the IFC SME toolkit.
- To achieve these objectives, the business plan proposes the following improvements in API over its three-year implementation period:
    - An efficient delivery structure for API-Mali which would entail the recruitment of a number of qualified staff in different hierarchical positions, who would have to be remunerated competitively
    - Three-year performance indicators, milestones, and targets against which API's performance will be measured
    - The use of IT to enhance processes (including an investor relationship management system)

The three-year budget is mostly guaranteed by the GoM and also leveraging on donor funding.

Component 2: Improve Access to Mango Production Areas (SDR 7.75 million, equivalent to US$10.8 million)

22. Component 2 will finance two types of infrastructure that are physical inputs to the mango value chain: (a) the rehabilitation of 300 km of rural roads and (b) the construction and modernization of seven post-harvest facilities, including collection and conditioning centers. The objective of this component is to improve the uninterrupted and timely supply of agricultural products, mostly mangos, by facilitating physical access to production sites, collection, and conditioning of products in the Sikasso region.

23. The observed constraints are the (a) limited rural accessibility and rural connections to markets and (b) lack of post-harvest facilities linking primary sectors to the agro-processing sector.

24. The expected benefits of Component 2 are (a) privately managed post-harvest facilities; (b) reduced post-harvest losses due to better collection practices and rural transport gains; (c) decreased travel time and, in turn, transport costs; (d) increased share of rural population that have access to all-season roads; and (e) sustainably managed logistics/exports platform.

Subcomponent 2(a): Rehabilitate Rural Roads (SDR 5.95 million, equivalent to US$8.3 million)

25. The supply of exportable mango is stagnating. The observed constraint is the limited rural accessibility and rural connections from the production basins in which orchards are located to processing or conditioning facilities for export. During the rainy season, physical access to orchards is difficult, in some cases, impossible. Due to seasonal or permanent interruption of rural roads, most production areas are barely accessible by light trucks. As a result, especially because part of the harvest time coincides with the rainy season, on the supply side, exporters and processors have great difficulty securing enough mangos. Of the 600,000 tons produced in the country in 2015, only 38,800 tons were secured for exports (6 percent of the total or 11 percent of exportable varieties).[50]

26. Rural roads connecting orchards to processing or conditioning facilities for exports are impassable during the harvest season. The Sikasso region has the highest annual rainfall rate in Mali. The resulting cost to the industry to access the mango supply is very high because road conditions cause longer travel times and damage light trucks. In addition, the shaking and consequent bruising due to the bad road conditions contribute to the high rejection rate of fresh mangos. At the orchard level, post-harvest losses are considerable. To secure the supply side of the mango value chain, improving rural roads into all-season roads for isolated producer communities is essential. Improving roads will (a) link orchards to collection facilities and (b) facilitate the collection and transport of large quantities of mangos from the collection facilities to the processing factories or commercial export facilities.

[50] IFM (*Interprofession de la Filière Mangue au Mali*). 2009. *«Rapport de la journée de validation du bilan sur la collecte, traitement et analyse des données statistiques sur la production et la commercialisation de la mangue»*, November 2015; ACDP, *«Évaluation du potentiel de production agricole et mise en place d'un dispositif de suivi de la production combinant analyse statistique, télédétection, et enquête de terrain pour le compte du PCDA. Rapport final provisoire"*

27. Subcomponent 2(a) will finance technical studies, supervisory and control missions, and civil works for the improvement into all-season roads of 300 km priority rural roads out of the total of 1,000 km[51] proposed by the IFM, through spot improvement focusing on building drainage structures, culverts, and small bridges to ensure passage during rainy season. Of the 300 km of priority roads to be improved, (a) 100 km will be located in the Sikasso District, which is the highest yielding mango production basin in the country and (b) 200 km will be located in the Yanfolila District, which is Mali's second highest yield production basin and the home of the biggest mango processing factory.

28. The activities to be financed are (a) technical studies and supervisory and control missions to upgrade the 300 km of priority roads to all-season roads and (b) civil works to upgrade the 300 km of priority rural roads to all-season roads.

Subcomponent 2(b): Modernize Collection and Conditioning Facilities (SDR 1.80 million, equivalent to US$2.5 million)

29. The mango value chain lacks efficient ways to collect mangos at the orchard level. This logistical inefficiency increases the cost of collecting mangos because it requires multiple stops to collect the produce instead of aggregating supply at key points at which only one stop would be needed to collect large quantities of mangos for processing or conditioning for export. In addition to improving the logistics, the post-harvest facilities enable cooperatives to better protect mangos against insects and to clean and package the fruit before transfer. The Sikasso District has built eight post-harvest facilities. However, because these facilities lack basic services, they are not operational to meet market requirements. Some improvements are needed.

30. The three existing post-harvest facilities were built by the regional council of Sikasso and are owned by the communes in which they are located. The facilities are supposed to be managed under an *affermage* type of contract between the commune and the cooperatives granting the use of the facilities, in exchange of a yearly fee paid to the commune. The cooperative in return charges a user fee to industries, farmers, and intermediaries.

31. Subcomponent 2(b) will finance technical studies, supervisory control missions, and civil works to modernize and construct seven post-harvest facilities for mangos (collection and conditioning for processing or fresh exports). The establishment of these facilities will help collecting and conditioning fresh mangos for processing, or for fresh exports. The following facilities will be financed:

[51] Approximately 1,000 km of rural roads, which give access to approximately 60,000 tons of exportable mangos, have been identified by stakeholders (IFM, processing units) as requiring improvement to enable proper collection and transportation of mangos in production areas, especially during the rainy season. A prioritization based on value of mango to collect per kilometer of road will be made by the project to select the 300 km that will unlock the highest value of exportable mangos. After the road upgrade, an additional 40,000 tons of mangos are expected to be easily accessible. Sikasso and Yanfolilla were chosen because they are the two highest yielding basins compared to other production areas. Post-harvest facilities will be upgraded or built to enable a first sorting of mangos, avoid unnecessary transport costs, and reduce losses (SACP. 2015. *Étude d'identification des pistes/routes d'accès et des sites d'installation des centres de collecte de mangues dans les bassins de production de la région de Sikasso. Rapport provisoire*).

(a) In the Sikasso District, three existing collection facilities in the 'Mandela' production basin will be upgraded with basic services including drilling wells to access water, solar energy, pallets for packaging, insect netting, and a warehouse.

(b) Four collection and conditioning facilities will be built and made operational, of which three will be in the Yanfolila District, which currently has no post-harvest facilities.

32. A commercial viability assessment of all seven post-harvest facilities will be conducted by the IC and will be followed by ownership and private management options proposals.

Component 3: Foster Animal Feed Production (SDR 6.90 million, equivalent to US$9.6 million)

33. Component 3 will assist animal feed industries to increase the quantity and quality of their production by securing stable quality inputs (cereals and oilseeds, among others). Thus, Component 3 will ensure that sufficient quantities of animal feed are produced at low cost to catalyze the growth of meat under modern conditions. To this end, the component will support the establishment of productive alliances between rural producers and their buyers (intermediaries, wholesalers, or industrial firms) in the animal feed value chain and finance part of their business plans.

34. By formalizing relationships between the animal feed industry actors, the Project will facilitate access to finance and expand opportunities for investment in cereals and feed commodities. These interventions will ultimately increase revenues of rural farmers and industrial firms, increase the nutritional value of livestock, and support animal processors to meet increasing market demand for high quality meats.

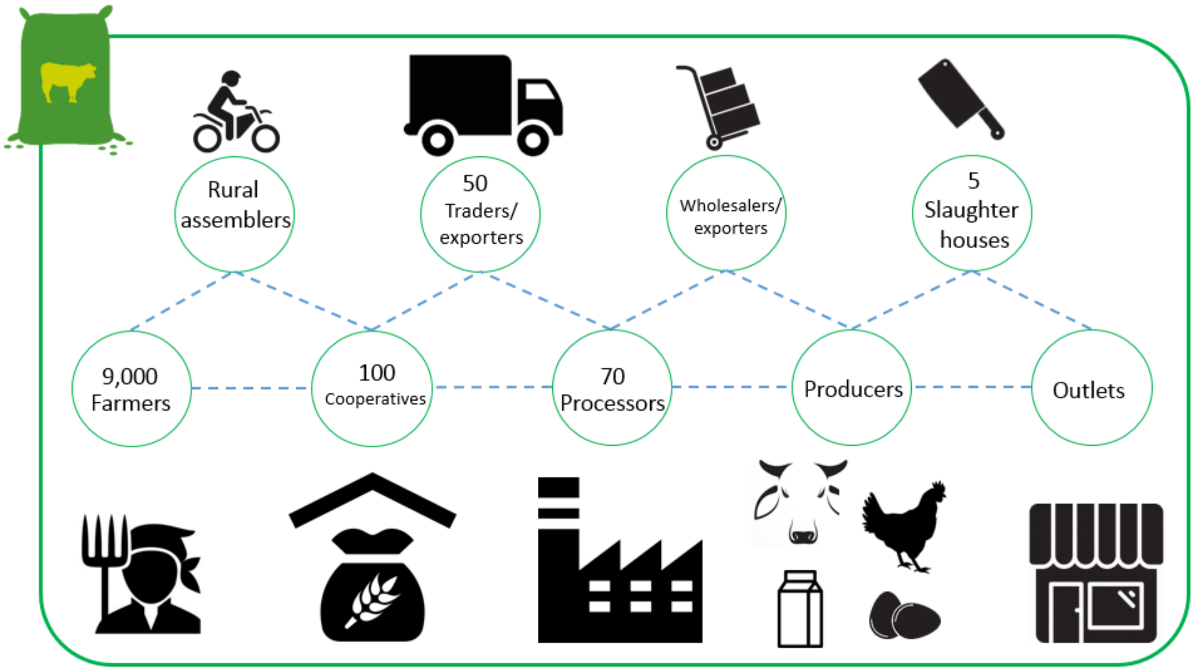
35. The six main challenges to the growth of the animal feed sector are (a) inefficiencies along targeted value chains due to inadequate integration of actors and failed coordination among stakeholders; (b) limited reliable access to quality raw material of cereals and oilseeds to support processing sector expansion; (c) lack of post-harvest facilities linking production and processing; (d) limited knowledge of international sanitary, quality, and technical standards, and poor implementation of modern practices; (e) lack of private sector participation in agribusiness services; and (f) limited financial and banking literacy and borrowing capacity in the animal feed sector.

36. Expected benefits of Component 3 are (a) increased production of animal feed inputs; (b) increased maize volumes stored for processing; (c) privately managed post-harvest facilities; (d) strengthened quality control of animal feed and its inputs; (e) increased processing capacities recovered and/or installed; and (f) responsible private investments generated in maize processing and animal feed industries.

37. Animal feed production has strong potential to establish an agro-industrial sector that will be driven by modern production of cattle, sheep, goats, and poultry. For a long time, Mali has been a major center in West Africa for livestock rearing. The country has more than 10 million cows and 34 million sheep and goats; the sector constitutes approximately 10 percent of Mali's

GDP.[52] However, as of today, less than 0.5 percent of these animals are used for fattening purposes.[53] This figure is bound to rise exponentially as the country continues to urbanize and the demand for animal products (quality meats, milk, and eggs) grows.

Figure 2.2. Key Animal Feed Stakeholders



38. As Mali's beef industry grows, it is expected to transition from more traditional styles of livestock raising to more modern systems. The old systems have many inefficiencies that a more modern commercial system might eliminate. However, the traditional system relies very heavily on pasture grazing, which currently is a 'free' public good. This lack of cost may explain why, in Mali, beef is less expensive than poultry. The transition to higher volume, more modern commercial systems will entail greater use of animal feed for cattle, which will alter beef pricing and could result in a pricing differential between beef and poultry more in line with world markets. In such a scenario, in a market in which buying power is low and consumers tend to be more price sensitive, beef's ability to stay competitive would be challenging. Thus, although markets for both beef and poultry always will exist, given current pricing and volumes, there may be a limit to the potential growth of the beef industry.

39. In Mali, milk consumption is estimated at 50 L per person per year. However, more than half of the milk consumed is imported. The productivity of local cows remains very low (1.5 L of milk per day per suckler cow). FIFAM estimates that 3.4 million chickens are raised annually to produce eggs, and this number is expected to increase very quickly (more than 8 percent per year). However, more than 60 percent of day-old chicks are imported, leaving an opportunity for local industrialization of chick production. Of the 39 million poultry units in Mali, only 5.6 million chickens are raised in an industrialized manner to produce meat. Poultry easily could

[52] IMF dataset, November 2015.
[53] DNPIA, *Rapport Annuel*, 2014.

benefit from the project's animal feed intervention. This intervention will provide additional impact given that, per unit of feed, poultry is the most efficient in the volume of meat it produces.

40. Mali's high production of maize (1.7 million tons annually)[54] and cotton seeds (250,000 tons) gives it a clear advantage to respond to the rising national, regional, and international demand for animal feed. The fact that some Malian animal feed companies already export a significant part of their production[55] provides a good opportunity to increase the local supply of feed.

41. The animal feed industry and the fattening and commercialization industries of cattle and, to some degree, poultry rely on (a) maize (and other cereals) and (b) oilcake.

(a) **Cereals.** Mali has a surplus production of maize. In addition to human consumption, maize contributes to animal feeding (60 percent of poultry feed). However, maize products face quality issues, both on-farm and at first-stage transformation, that impact feed quality and value addition.

(b) **Oilcake.** Oilcake (35 percent of livestock feed) is derived primarily from cotton seeds (but can be other oilseeds). Cotton seeds are crushed to make cotton seed oil, of which oilcake is a byproduct. Mali uses approximately only 25 percent (500,000 tons) of its installed oil crushing capacity (1.9 million tons).[56] Only 250,000 tons of cotton seeds are produced in Mali under CMDT,[57] whereas approximately the same amount is imported from neighboring countries.

42. At the same time, industrial production of livestock feed is expected to grow rapidly in the coming years (by more than 50,000 tons yearly by 2020).[58] This growth is driven by strong internal consumption (more than 5 percent per year urbanization rate,[59] more than 12 percent per year for broiler meat,[60] more than 9 percent per year for chicken eggs,[61] and more than 30 percent per year for fattening).[62] Two other stimuli of the greater demand for livestock feed are external demand in the region (for meat in Côte d'Ivoire and Sénégal and for animal feed in Mauritania); and unfavorable changes in climate conditions, which are reducing available pasture areas (livestock grows 3 percent annually[63] whereas grazing areas for animals is shrinking).

43. Upstream, the current situation requires fostering and enforcing contractual relationships among stakeholders in the animal feed industry, combined with targeted and hands-on support to farmer cooperatives. Contractual relationships require considering the land issues for each kind

[54] After Nigeria, Mali and Ghana tie for the second most important producers of maize in West Africa (U.S. Department of Agriculture).
[55] Interviews with feed mill owners and cereal wholesalers from Bamako, Koutiala, and Sikasso, 2015 and 2016.
[56] Interview with CMDT, 2016.
[57] Interview with FENAPHAB, 2016.
[58] Interviews with feed mill owners, 2015 and 2016.
[59] U.S. CIA (Central Intelligence Agency), *The World Factbook*, Washington, DC, 2015.
[60] Interview with FIFAM, 2016.
[61] Interview with FIFAM, 2016.
[62] DNPIA, *Rapport Annuel*, 2012 and 2014.
[63] DNPIA, *Rapport Annuel*, 2014.

of stakeholder to increase quality and sustainably diversify animal feed inputs, such as soybeans and sunflower seeds.

44. Downstream, modern installed slaughterhouse capacity recently has increased (capacity of 300 cattle and 600 ovine/goats per day,[64] and a modern poultry slaughterhouse is expected) in Kayes, Bamako, and Sikasso. These new facilities will enable a gradual transition from extensive to intensive livestock fattening,[65] opening opportunities to foster synergies among primary (farmers and breeders), secondary (processing units and agro-industries), and tertiary (slaughterhouses, traders, and butchers) sector players. Currently, a few operators in Mali practice animal fattening before slaughter. These intensive fatteners operate only from December through June (dry season), when the amount of pasture is very limited. They feed on a three-month cycle and usually have two cycles during this period. From the animal nutrition standpoint, this system has massive inefficiencies that should be improved. The feed quality and blends certainly could be optimized; veterinary care could be improved; and better access to water and better feedlot infrastructure are needed.

45. The Project will award a demand-based financing for productive alliances subprojects, and finance the selection process and implementation of these subprojects in the animal feed value chain. A productive alliance is defined as an association of producers and purchasers eligible for participation under the Project in accordance with the provisions of the PIM. It is an economic agreement between a group of organized producers and a buyer (intermediary, wholesaler, and agro-processor) in which all assume risks, provide resources, and share the profits, such that the agreement can continue over the medium and long term. Successful alliances bring benefits first to producers and buyers and, by extension, to communities and consumers. The component's main output will be the implementation of about 100 subprojects with clearly defined and sustainable goals. It will be required that at least 30 percent of productive investments for subproject cost be covered by the beneficiaries in cash to ensure that producers and buyers have the necessary resource endowment. On average, the Project will finance approximatively US$70,000 in each subproject.

Subcomponent 3(a): Strengthen Capacities of Value Chains Actors (SDR 2.00 million, equivalent to US$2.8 million)

46. Subcomponent 3(a) will support the creation and strengthening of productive alliances in the animal feed value chain. Activities will include the following:

(a) Designing and implementing a communication and dissemination campaign for the productive alliances model and organizing local workshops and mass-media outlets

[64] Kayes Modern Slaughterhouse of Laham Industries, a private abattoir and marketer of beef carcasses, bone-in cuts, and processed beef products, reportedly is buying fattened beef of a higher quality. In the near future, Laham's feeding system suppliers are likely to provide the new benchmark for Mali fattening.

[65] To grow animal fattening (feeding) for the beef sector in Mali, considerable focus will have to be put on working capital financing for feedlot operators. This business being very capital intensive will require access to finance in all cases. Financing mechanisms may include profit sharing between the livestock owner and the feedlot whereby the feedlot does not pay for the cattle until the sale is made. Some form of insurance will be necessary to cover the risk of death or disease while the animals are in the feedlot.

to inform the stakeholders involved in animal feed production about the scope and rules of the Mali SAC Project

(b) Increasing technical assistance and business development, and developing the capacity of the private providers to familiarize said providers with the Project concept and processes, through the provision of training, and establishing a technical service provider database (including an outreach program to expand the number of available relevant providers)

(c) Performing pre-investment activities such as (i) providing pre-investment financing to create proposals with viable business plans, including feasibility studies to rehabilitate or construct facilities; (ii) institutional capacity building aimed at organizing farmers' groups into cooperatives (including governance and leadership) and providing trainings to cooperatives to improve their marketing and business skills in animal feed production and inputs; and (iii) preparing the productive alliances business plans

(d) Selecting Productive Alliances under a competitive process, including consideration of financial and technical capacity, and social environment impacts as related to their respective business plans

Subcomponent 3(b): Implement Productive Alliances Business Plans through Subprojects (SDR 4.90 million, equivalent to US$6.8 million)

47. Subcomponent 3(b) will provide grant financing for (a) a program of subprojects selected under subcomponent 3(a) in support of the effective implementation of the productive alliances investment plans and (b) the provision of support for the implementation of subprojects.

48. This financial support to the carrying out of subprojects in support of the effective implementation of the productive alliances investment plans will consist of, among others, one or more of the following activities:

(a) **Providing BDS.** Access to financial services, business management, and advisory work to facilitate firms' access to markets in Mali and abroad, information technology, certification, and others.

(b) **Providing TA.** Quality improvement through better use of storage systems, harvesting and drying equipment, productivity increase through adoption of better farming techniques, capacity building and trainings to improve the industrial practices of agro-processors, strategies for local sourcing of alternative feed inputs, and others.

(c) **Matching financing for inputs importation, equipment, and productive infrastructure.** Installation of production equipment (shellers, threshers, and dryers), modernization and/or construction of post-harvest storage facilities (warehouses, silos, and ventilated storage), industrial production units' construction of expansion, and others.

49. Component 3 will support up to 9,000 farmers to sell their harvests as a collective (approximately 100 cooperatives will be supported); to establish sales contracts[66] with 120 traders, exporters, and processors; to improve quality and processing efficiency to meet market requirements; to catalyze market expansion by strengthening market systems and bank financing as a means to invest in new agriculture and livestock technologies.

50. The expected outcome of Component 3 will be the increase of the average volume of sales of the products involved in the alliances.

Component 4: Strengthen Project Implementation Capacities (SDR 2.95 million, equivalent to US$4.1 million)

51. Component 4 will ensure that project activities are implemented in accordance with the agreed work schedule and in compliance with the Financing Agreement. It will aim at strengthening the institutional and human resources capacity of the Ministry of Agriculture, the CNRA and the Project Coordination Unit for Project implementation, coordination, reporting, monitoring and evaluation, and management, including fiduciary (i.e. procurement and financial managements) aspects, environmental and social safeguards monitoring, and specific management of result-based memoranda of understanding with the relevant, ministries, departments and agencies (MDAs). (See detailed implementation arrangements in Annex 3).

52. The MoA will have the overall responsibility for the implementation of the SACP. It will delegate the overall coordination to the CNRA. The Project will be implemented by the WAAPP-2A Coordination Unit which is embedded in the CNRA. It will be maintained and strengthened with an SACP technical director and three fiduciary staff (procurement assistant, a principal accountant, and an assistant accountant) to accommodate the additional workload of this project. The coordinator will continue to be assisted by a financial controller, an M&E officer, and a procurement specialist, as well as the required support staff. It is expected that key staff will be recruited to support the technical director: an infrastructure specialist, a value chains specialist and an access to finance specialist.

53. The CNRA will be responsible for all project activities and work closely with, and supervise the work of consultants, including the IC, who will be contracted to support project implementation. The CNRA also will be responsible for preparing periodic reports and ensuring that project stakeholders and beneficiaries comply with the updated PIM. A robust M&E will verify the work plan achievements and periodically update the Results Framework.

54. The Project will contract an IC to (a) ensure the quality of the TA provided to mango value chain actors and animal feed stakeholders (Components 1 and 3) and (b) verify the commercial viability of works and equipment financed by the Project (Components 2 and 3). The IC will be an organization with solid experience in agro-industry development and agribusiness,

[66] As proven by the International Fertilizer Development Center (IFDC) Toward Sustainable Clusters in Agribusiness through Learning in Entrepreneurship (2SCALE) (agribusiness incubator) program in Mali, which supports *Société Nama et Fils* (SONAF), a cereals trader that purchased 26,000 tons of maize in 2015 from 170 cooperatives (8,700 farmers), thus enabling cooperatives to access XOF 127 million in credit from three financial institutions (Soroyiwaso, Nyesigiso, and National Bank for Agricultural Development) for 1,279 growers.

as well as in managing complex, agricultural operations. In addition to providing strategic guidance and transaction advice, the IC will have the fiduciary responsibility to subcontract TA under Components 1 and 3 and to select appropriate equipment under Components 2 and 3. Finally, the IC will assess the commercial viability of market support facilities, as well as recommend options for private management of these facilities.

55. Results-based MoUs and/or contracts with all relevant ministries, departments, and agencies responsible for the implementation of the project's activities may be signed. The WAAPP coordinator will be responsible for the preparation of these results-based MoUs and contracts with all the entities.

Annex 3: Implementation Arrangements

Republic of Mali: Support to Agro-Industrial Competitiveness Project (P151449)

1. **Implementation arrangements feature several players whose roles will be detailed in the PIM.** These arrangements consider capacity limitations in the Government and existing relevant agencies. They build on similar successful projects in Mali.

Project Coordination Unit

2. **The PCU is the existing WAAPP Coordination Unit at the CNRA.** It is housed in the MoA and is composed of staff headed by a project coordinator. It will be maintained and strengthened with an SACP technical director and three fiduciary staff (a procurement assistant, a principal accountant, and an assistant accountant) to accommodate the additional workload of this project. The coordinator will continue to be assisted by a financial controller, an M&E officer, and a procurement specialist, as well as the required support staff. The PCU will be responsible for all procurement, disbursement, accounting and FM, M&E, project progress reporting, and ensuring the auditing of project accounts. The project coordinator will report to the *Agropoles* SC on the progress achieved, highlight implementation issues and challenges, and seek guidance and direction on project implementation, while the technical director will report to the SC. The PCU will function as the secretariat to the SC.

Steering Committee

3. **An SC will be established to provide oversight and guidance on project implementation and will review and approve work plans and budget**. The SC, which will consist of 14 members representing public and private institutions benefiting from the proposed project, shall be chaired by the MoA with the PCU as secretary and include representatives from the public and private sectors. While the number of representatives is set at 14 and the number of private sector members must be at least 7, member composition may change over time as proposed by the recipient and acceptable to the World Bank. The SC will meet at least twice per year.

Implementation Arrangements for the Components

4. **The PCU will collaborate closely with the different ministries and agencies involved in the Project, as well as with private sector representative bodies and other stakeholders through designated focal points.** The focal point in each beneficiary ministry or agency will be responsible for the activity. The main lead ministries/departments/agencies and public beneficiaries include the Ministries of Agriculture (implementing agency [IA]), Livestock, Industrial Development, and Transport, as well as API-Mali and Institute for Rural Economy.

5. **The focal points will be responsible for coordinating the PCU's needs to prepare the AWPs, budgets, and results to be achieved, including targets; the ToR for hiring TA; and technical specification for goods and works to be procured.** The focal point will also participate in the procurement process, including updating the PP, M&E of the component, going

on supervisory missions, and preparing periodic reports on elements relevant to their organization's participation in the Project.

6. **Subprojects of the productive alliances.** The provision of support for the effective implementation of subprojects (productive alliances investment plans) will be done by the PCU and the technical support of the SACP technical director and the IC. Eligible beneficiaries are buyers (rural assemblers, traders/exporters, and processors) jointly with farmers or producer cooperatives. It will be required that at least 30 percent of productive investments for subproject cost be covered by the beneficiaries in cash to ensure that producers and buyers have the necessary resource endowment. On average, the Project will finance approximatively US$70,000 in each subproject.

7. **An IC will be contracted to support the implementation of Components 1 and 3, including the subprojects.** The IC will contribute to identifying and formalizing productive alliances, taking into account the process of accessing land and the existing land tenure rights among value chain actors. These alliances should focus on where contracting can take place and the points at which industrial, distribution, and export enterprises interact. Strategic TA will fundamentally consider and operationalize attracting private investment, improving organization and management within the value chains, and innovating to overcome obstacles to enterprise growth. Finally, the IC will provide TA to determine the commercial specifications of infrastructure operations and equipment needed: the size, dimensions, location, and optimal management structure. The IC will execute commercial feasibility studies and economic and financial analyses to inform the selection of specific infrastructure and equipment. These studies and analyses will enhance the potential profitability of the value chains selected and the value created. The IC will also research, develop, and implement the management structures most likely to guarantee the continued use and maintenance of the infrastructure and equipment. These structures will rely heavily on private sector-led concepts and be implemented in conjunction with key stakeholders. Once deemed commercially sustainable, the technical design and tender documents of the infrastructure assets will be finalized by competitively recruited engineering firms before procuring the rural works.

8. **The IC will be an organization with sound knowledge of agro-industry development and investment and extensive experience in managing projects of this complexity in Mali or similar environments.** The selection process will be competitive. Selection criteria could include the

(a) quality and feasibility of the technical approach and its likelihood to attain project objectives;

(b) quality of the proposed team's experience and its relevance to project activities and objectives;

(c) past performance of the offeror in implementing projects of similar complexity, subject matter, and context;

(d) quality of project management systems proposed by offeror; and

(e) offeror's capacity to fulfill the obligations of World Bank systems, processes, and standards for FM, procurement, environmental and social impact management, and M&E.

Table 3.1. Summary of Institutional Arrangements

Component	Responsible Institution	Contributing Institution	Beneficiary
Component 1: Expand Mango Processing and Investment Opportunities	MoA (CNRA/IC)	MoTRADE, MoID (DNI), Ministry of Investment Promotion (API-Mali), IFM, and other professional and inter-professional organizations of targeted value chains in addition to the Financial Institutions Association (APBEF)	Mango value chain and animal feed sector actors: nursery owners, farmers, rural assemblers, processors and exporters; cooperatives; financial institutions; and users of API-Mali OSS
Component 2: Improve Access to Mango Production Areas	MoA (CNRA)	Ministry of Transport (DNR), MoA (DNGR), and IFM	Mango value chain actors: nursery owners, farmers, rural assemblers, processors and exporters, transport operators, packaging material suppliers, and rural communities
Component 3: Foster Animal Feed Production	MoA (CNRA/IC)	MoL (DNPIA and DNSV), MoA (DNPIA), MoTRADE, MoID (DNI), and professional organizations for (a) poultry (FIFAM), (b) livestock (FEBEVIM, FENALAIT), (c) animal feed (FENAPHAB), and (d) industry (OPI)	Animal feed sector actors: farmers; rural assemblers/brokers; traders; processors; wholesalers; exporters; meat, egg, and milk producers and distributors (including slaughter houses and meat outlets), agro input suppliers; financial institutions; and local consumers
Component 4: Strengthen Project Implementation	MoA (CNRA)	All	All

Institutional Assessment of Key Public and Private Institutions

9. **IFM.** Established in December 2011, the IFM coordinates mango value chain actors' interests (nursery, production, collection, processing, and exports). The IFM has the ability to generate statistics on mangos marketed and currently manages shared conditioning facilities. The IFM has five structured professional groups that can clearly articulate their challenges. The IFM is also representative of the value chain (even if smaller holders could be better represented), and it has statistical capacity. IFM's weaknesses are the suboptimal management of shared conditioning facilities, which lack the efficiency intended, and a weak governance structure.

10. **FEBEVIM.** Established in 2000, FEBEVIM is a professional organization that coordinates livestock-meat value chain actors' interests. FEBEVIM's strengths are its wide representation of the sector, but it suffers from the inability to generate statistics on livestock products marketed. It also lacks the capacity to manage shared facilities and a vision for the sector. PRAPS supports the organization of the sector and market information systems that will enable addressing some of these weaknesses.

11. **FENAPHAB.** Established in 2000, FENAPHAB is a professional organization that coordinates oil mill and cattle feed subsector stakeholders' interests. Its strength is that it

represents 90 percent of the oil mills in Mali. Thus, it has a strong focus on processing and on oilcake sub products and a strategic relationship with CMDT, which supplies half of the oil milling inputs. FENAPHAB's weaknesses are that it does not purchase inputs or sell outputs collectively, nor does it manage shared facilities for its members. Its organizational capacity remains weak, and looking beyond cotton seeds has been a challenge. Collaboration among actors is difficult in a subsector in which information asymmetries and the dependence on CMDT make the environment challenging for processors.

12. **FIFAM.** Established in 2005, FIFAM is an inter-professional organization that coordinates poultry subsector stakeholders' interests in Mali (chicks, meat, and egg production, and poultry feed). FIFAM facilitates, among its members, collective purchase of chicks and transport-sharing for sales. The federation has a relatively strong statistical capacity with ambitious growth targets. Representation in the federation tends to be educated and articulated. Even though poultry meat has become a success story in Mali, it is facing the competition of poultry meat imports.

13. **APBEF.** Established in 1980, by law APBEF is an association to which all financing institutions operating in Mali have to adhere. It is a member of *Conseil National du Patronat du Mali*, and it internally coordinates relationships among members and external relationships with public authorities and regional bodies. As a group, the association has experience in financing value chains, particularly in the cotton sector, but some of its member financial institutions are more active than others. Outside of Bamako, financial institutions are not geographically near key value chain actors, particularly farmers and cooperatives, and very few risks are taken outside the cotton sector.

14. **OPI.** It is an association that promotes the development of industries in Mali. It is a member of the *Conseil National du Patronat du Mali*. As such, it is an advocacy tool for industries' employers and it lobbies the GoM. OPI's strengths are its clear positioning in Mali's private sector landscape and systematic communication of industry challenges (OPI White Book, second edition was updated in 2016). OPI's weakness is that a large segment of the industrial private sector (such as many oil mills) is not part of it; therefore, OPI's lobbying is not fully effective.

15. **MoA.** It has extensive experience in areas of agricultural productivity and relationships working with its offices across the country. It also has a vast regional presence via its regional directorates and local services, which gives the MoA unparalleled ability in the Government to map the actors in production areas. The MoA is well-endowed and manages several donor programs or projects. Due to the importance of the MoA, its leadership tends to be political with a focus on drafting policies, regulations, strategies, and programs but little effort to implement and deliver these documents. Land matters are overwhelming, particularly with regard to the process of accessing land and the complexity of overlapping existing land tenure rights.

16. **MoL.** It has a clear mandate and its current leadership has a private sector-driven vision for the livestock value chain. The MoL has a good understanding of pastoralism challenges and cross-border disease control, but it currently lacks the ability to properly understand private sector needs with regard to animal fattening (including feedlot) and articulating appropriate responses for the meat and milk industries. Regional knowledge is strong. However, the MoL

could improve the granularity of its data collected on animal fattening, red meat, and carcass exports. Veterinary and phytosanitary services also could be strengthened to adequately support the emergence of a vibrant, quality meats sector, particularly in export outlets. Strategic collaboration will be critical with PRAPS, which finances key livestock market infrastructure and veterinary services.

17. **Ministry of Transport.** It has good technical and supervisory capacity of rural road rehabilitation and construction in Mali. Planning capacity is good. However, procurement suffers from long delays, and maintenance of rural roads still remains an unsolved issue in the Government.

18. **MoTRADE.** It is critical to facilitate trade in Mali. The MoTRADE has an extensive knowledge of the project's topics such as warehouse receipt policy, competition law, and import/export barriers and opportunities. The MoTRADE can generate statistics on trade and exports. However, several of its departments and agencies (such as Exports Promotion Agency) have weak organizational capacities.

19. **MoID.** It is critical for industrial policy and development in Mali. However, several of its departments and agencies (such as Center for Agriculture Development and Agency for Industrial Zone Development) have weak organizational capacities.

20. **API-Mali.** Established in 2005, API-Mali is a public agency in charge of promoting FDI and small and medium enterprise development, thus encouraging both foreign and local investment opportunities in the commercial sector such as agribusiness. Recognizing the importance of the private sector and the role played by professional investment promotion in attracting and facilitating new investments, the new administration has created a specific ministry to address these issues (the Ministry of Investment Promotion and Private Sector). This is the new ministry that now manages the affairs of API-Mali. Understanding the breadth of the challenge facing Mali, the new ministry is in the process of completing a national policy, which clearly articulates the priorities for the Government in promoting investment and developing the private sector. The World Bank has developed an Investment Promotion Agency assessment matrix that evaluates an Investment Promotion Agency against 14 practice areas. Of these, six are structural: organization and mandate, strategy, staff, systems, M&E, and partners. The other eight are operational: image building and marketing, investment intelligence and research, proactive promotion, facilitating investment decision making, assistance with government procedures, and assistance with start-ups, investor aftercare, and advocacy for investment climate reform. The assessment ranks each factor as unsatisfactory, satisfactory, or excellent. Overall, API-Mali is rated as unsatisfactory.

Table 3.2. Summary Results of the API-Mali Rapid Assessment

Practice Area	Score (%)	Rating
Organizational structure, mandate, and funding	66.0	Satisfactory
Strategy	17.6	Unsatisfactory
Staff	31.4	Unsatisfactory
Systems	15.7	Unsatisfactory
M&E	0.0	Unsatisfactory

Practice Area	Score (%)	Rating
Partners	25.9	Unsatisfactory
Image building and marketing	24.2	Unsatisfactory
Proactive promotion	0.0	Unsatisfactory
Facilitation of investment decisions by interested investors	46.4	Satisfactory
Assistance in navigating government procedures	81.5	Excellent
Assistance in navigating business start-ups	19.0	Unsatisfactory
Investor aftercare post establishment	1.9	Unsatisfactory
Advocacy for investment climate reform	24.2	Unsatisfactory

21. **API-Mali is ranked unsatisfactory in 11 of 14 practice areas.** This low ranking clearly indicates the large number of areas that require improvement. These areas will be taken into account as part of the new API-Mali Business Plan 2016–2018, to which the SACP will contribute. However, the scoring clearly is influenced by the budget and resources available. As an example, proactive promotion generally requires travel to markets by qualified staff. Such travel clearly is not possible without a travel budget or skilled staff.

Key Institutions Responsible for Financial Management, Disbursements, and Procurement

22. **The PCU will have responsibility for FM and procurement**, including (a) managing the operational account and (b) preparing Withdrawal Applications and reporting to submit to the World Bank. The PCU will have overall responsibility for these functions and be responsible for providing all consolidated reports to the World Bank. The institutional contractor will have procurement and FM responsibilities for the implementation of Subcomponent 1(a) and Component 3 and provide the requisite reporting information to the PCU for consolidation into project reports.

Summary of Financial Management and Disbursement Arrangements

23. **The FM arrangements for the Project have been designed taking into account both the country's post-conflict status and OP/BP 10.00, which describes overall the World Bank FM policies and procedures.** The Project's FM system must be capable of (a) correctly and completely recording all transactions related to the Project; (b) facilitating the preparation of regular, timely, and reliable financial statements; (c) safeguarding the Project's assets; and (d) being subjected to auditing diligences as required by the World Bank. The arrangements also aim to facilitate disbursements and ensure effective use of project resources, while using the country's own systems to the extent possible.

24. **In July 2011, the Government adopted the updated integrated PFM action plan** (Second Government Action Plan for the Improvement and Modernization of Public Financial Management [*Plan d'action gouvernemental pour l'amélioration et la modernisation de la gestion des finances publiques*, PAGAM/GFP II]). PEFA II, undertaken in 2011, has highlighted several areas of strengths including the credibility, transparency, and comprehensiveness of the budgeting system. The procurement system has been modernized in three dimensions: legal and institutional frameworks and bidding document control system. However, besides the apparent

strong policy and legislative frameworks and systems, including detailed procedures for procurement and FM, the Government still struggles with compliance and effective implementation. The compliance with internal control rules and the effectiveness of internal audits need to be improved. Furthermore, accounting and reporting as well as external scrutiny and audits are reported to be weak.

25. **The FM assessment, which took place during the last implementation support mission of the WAAPP-2A, was carried out in April 2016 and did not reveal significant FM issues** except for (a) the weaknesses in advance management provided to some execution agencies; (b) the weak performance of internal auditor; and (c) the lack of PP. Due to the overall fragility of the country and FM systems, specifically the critical issues that need improvements, the conclusion was that the CNRA could be in a position to manage World Bank funds once a number of measures are implemented to strengthen the WAAPP-2A's current FM system.

26. **Going forward, and to mitigate the fiduciary risk to the extent possible, a WAAPP-2A PCU will implement the Project.** The FM team of the PCU will be the World Bank's and other donors' main counterpart and focal point for all project fiduciary aspects.

27. **On this basis, the FM system of the Project will run as follows:**

- The FM arrangements of World Bank-financed operations in Mali are guided by Instruction No. 14-2628/MEF-SG, signed by the Ministry of Economy and Finance (MEF) on August 12, 2014. These instructions established a partial use of country FM systems. They allow the assignment of a public accountant to each IDA-financed project and a financial controller responsible for prior reviews of supporting documents for all payments related to the Project. These Project FM arrangements are considered acceptable to IDA but are not yet operationalized. These instructions are being piloted under Technical Assistance Project for Governance and Fiscal Decentralization (*Projet d'Assistance Technique pour la Gouvernance et la Décentralisation Budgétaire*; P112821). Therefore, the FM arrangements of the proposed project will follow the same approach as the FM arrangements in place for the ongoing projects in the country. Having been improved over time, these arrangements are considered acceptable to IDA.
- The WAAPP-2A PCU is familiar with World Bank FM procedures and the nature of the project activities as well as the geographic location of some activities. However, to avoid any increase in risk during the implementation of the Project, it is imperative that control systems and adequate staff, an effective internal audit function, a procedures manual, an integrated information system, and project software be in place at all times. The World Bank team and the Government discussed and agreed to (a) recruiting a principal accountant and an assistant accountant; (b) completing the configuration of the accounting software to allow the record of the SACP transactions in the current computerized accounting system; (c) strengthening the operational manual and complementing it with the details on operations, controls, and reporting arrangements; (d) strengthening the internal audit function through training and closer monitoring; and (e) recruiting an external auditor to audit the annual financial statements.

- Consolidated unaudited IFRs will be prepared every quarter according to the format and content agreed with IDA and will be submitted to the World Bank 45 days after the end of the quarter. These reports will reflect the activities under Components 1 to 4.
- The Section of Accounts of the Supreme Court faces some capacity constraints. Therefore, the Project's financial statements will be audited by a qualified and experienced external auditor recruited with a ToR acceptable to IDA. The Project accounts will be audited annually and the reports submitted to IDA and the Office of the Controller General of Public Services (*Controle General des Services Publics*) not later than six months after the end of each fiscal year. The audit report will cover all the expenditure related to Components 1 to 4.
- Upon project effectiveness, transaction-based disbursements will be used during the first months of Project implementation. Thereafter, the option to disburse against the submission of the unaudited IFR (also known as the report-based disbursement) will be considered subject to the quality and timeliness of the IFRs submitted to the World Bank and the overall FM arrangement as assessed in due course. The other options of disbursing the funds (reimbursement, direct payments, and special commitments) will also be available.
- One bank account, a DA denominated in XOF (CFA Francs), will be opened in a commercial bank on terms and conditions acceptable to IDA to facilitate payment for eligible expenditures. The DA will be managed by the FM manager and the coordinator.
- The IC will be required to open a bank account in a commercial bank on terms and conditions acceptable to IDA to manage separately funds received from the Project. An initial deposit of XOF 1 billion, equivalent to four months' expenditures forecast, will be released by IDA at the request of the PCU upon effectiveness. Payments to implementing partner organizations (firms, contractors, NGOs, and government specialized entities), services providers, and suppliers will be made in accordance with the payment modalities specified in the respective contracts and the MoU. In the case of payments to UN agencies, the special World Bank disbursement procedures will be used to establish a 'Blanket Commitment'—for the relevant UN agency, the full amount can be transferred as an advance (UN advance) or in periodic installments. The credit will finance 100 percent of eligible expenditures of the Project inclusive of taxes.
- Considering the country context and the PCU's track record with World Bank-financed operations, the residual FM risk after mitigation measures has been rated Substantial.
- Due to the Substantial FM risk, during the first year of Project implementation, FM supervision will be conducted at least twice a year. The supervision will focus on the status of the FM system to assess whether the system continues to operate well as agreed and provide support as needed. The supervision intensity will be adjusted over time based on Project FM performance and FM risk level.

Sector Context and Justification to Use a Ring-Fenced Financing Mechanism

28. **The 2011 PEFA completed with the support of the World Bank and development partners concluded** that (a) budget credibility is satisfactory, except for arrears management; (b) budget comprehensiveness and transparency are rated adequate but additional progress requires including in the budget information data on autonomous government agencies, programs financed by donors, and fiscal information between central and local entities; (c) budgeting is based on sectoral policies and multiyear policies; and (d) the quality of the instruments, rules, and procedures generally is sufficient. The procurement system has been modernized in three dimensions, namely the legal and institutional frameworks and the control system of bidding documents. However, besides the apparent strong policy and legislative frameworks and systems, including detailed procedures for procurement and FM, the Government still struggles with compliance and effective implementation. The compliance with internal control rules and the effectiveness of internal audit need to be improved. Furthermore, accounting and reporting, as well as external scrutiny and audits, reportedly are weak.

29. **Prepared with support from donors, the GoM has adopted the updated general strategic plan for PFM reforms**, that is, PAGAM/GFP II to follow up the recommendations of various completed PFM diagnostics.

30. **Although there is reason for cautious optimism, it will take time for these reforms to yield substantial improvements in the management of public funds**. As a result, the overall country fiduciary risk still is considered Substantial. Thus, for this Project, the World Bank cannot, at this time, rely 100 percent on the public expenditure framework. Given the fragility of the fiduciary environment and the nature of the Project, the GoM has requested a ring-fenced financing mechanism for the FM aspects of this project, similar to that of other IDA-financed projects in Mali.

31. **An existing PCU established under the responsibility of the MoA at the level of the CNRA (existing WAAPP-2A PCU) was proposed by the Government to manage the FM aspects of the Project.** Instruction No. 14-2628/MEF-SG, signed by the Minister of Economy and Finance on August 12, 2014, allows for the appointment of a public accountant and financial controller to each IDA-financed project. This arrangement is still in the pilot phase so cannot be applied to the proposed project. Therefore, the FM arrangements of the proposed project will follow an approach similar to the FM arrangements in place for the ongoing projects in the Mali portfolio. Having been improved over time, these arrangements are considered acceptable by IDA. There are no overdue audit reports or IFRs at the time of preparation of this project.

Overall Conclusion of the Financial Management

32. **FM arrangements of the Project will follow the same approach as the FM arrangements in place for the WAAPP-2A.** These are considered acceptable to the World Bank. The residual FM risk is rated Substantial. The WAAPP-2A team will be the World Bank's main counterpart and focal point for all the fiduciary aspects of the SACP. The FM team of WAAPP-2A has significant experiences with the World Bank FM requirements and procedures. The WAAPP-2A FM team composed of one FM manager, one principal accountant, and one

assistant accountant with acceptable qualifications. The current approved FM procedure manual will be used and the accounting software TOMPRO updated to include the SACP.

Risk Assessment and Mitigation

33. **The World Bank's principal concern is to ensure that project funds are used economically and efficiently for the intended purposes.** Assessment of the risks that the Project funds will not be so used is an important part of the FM assessment work. The risk features are determined based on two elements: (a) the risk associated with the Project as a whole (inherent risk) and (b) the risk linked to a weak control environment for the project implementation (control risk). The content of these risks is described in table 3.3.

Table 3.3. Risk Assessment and Mitigation

Risk	Risk Rating	Risk-Mitigating Measures Incorporated in Project Design	Conditions for Effectiveness (Y/N)	Residual Risk
Inherent Risk	**H**			**H**
Country Level: PEFA II, undertaken in 2011, has highlighted several areas of strengths. However, besides the apparent strong policy and legislative frameworks and systems including detailed procedures for procurement and FM, the Government still struggles with compliance and effective implementation. The compliance with internal control rules and the effectiveness of internal audit need to be improved. Accounting and reporting, external scrutiny, and audits are all reported as inadequate.	H	**Beyond the control of the Project.** The Government is committed to a reform program and adopted 'the Integrated Public Finance Management Action Plan' (PAGAM/GFP II). However, it will take time for these reforms to substantially improve the management of public funds.	N	H
Entity Level: The FM capacity assessment of the CNRA revealed internal control weaknesses and a weak fiduciary environment, mainly due to weak compliance with the rules and policies in place. Implementation of this project will translate into an increase of activity for the Directorate of Finance and Equipment *(Direction des Finances et du Matériel,* DFM). This increase, in turn, will require more sophisticated control systems and adequate staff, an effective internal audit function, developing the procedures manual, an integrated information system,	H	The FM procedures manual will be revised; additional FM staff familiar with the World Bank FM procedures will be recruited to form the FM team of the PCU; the internal audit function will be strengthened; and a multiproject and multisite accounting software will be updated. Recruitment of a principal accountant and assistant accountant and the adoption of an FM procedures manual will mitigate internal control weaknesses.	N	S

Risk	Risk Rating	Risk-Mitigating Measures Incorporated in Project Design	Conditions for Effectiveness (Y/N)	Residual Risk
and multiproject software.				
Project Level: Project resources may not be used for the intended purposes. Delays in the reporting system and auditing due to the additional workload for, and the weak capacity of the FM team, are expected. The numerous stakeholders could negatively impact implementation of the Project. Other concerns are the inefficiency of the M&E system to support the payment of cash grants and the weak capacity of regional and rural entities.	S	Current FM arrangements are not adequate to manage the Project. For efficiency, the FM manager will strengthen ex ante and ex post control of funds allocated to partner implementing organizations. The scope of audit will include review of expenditures incurred by implementing entities. Additional FM staff (principal accountant, assistant accountant) will be recruited based on ToRs acceptable to IDA to train and advise FM staff. Specific measures are incorporated in the project design to ensure smooth implementation and mitigate related risks including governance actions (refer to Governance Anticorruption section of the Financial Management Assessment Report).	N	S
Control Risk	**S**			**S**
Budgeting: (a) Weak capacity in central and decentralized entities to prepare and submit accurate work program and budget; (b) weak consolidation of budgets; (c) weak budgetary execution and control; (d) delays in preparing the budget and allocating to each implementing entity; (e) unreliable lack of comprehensiveness of budget; (f) cost overrun or underrun and reasons not detected on time; (g) lack of consolidated budget in the sector leading to inefficient use of the limited human resources and financial resources.	S	AWP and budget required each year and proclaimed. AWP reviewed and approved by the SC. The Project FM procedures manual will define the arrangements for budgeting, budgetary control, and requirements for budgeting revisions. The IFR will provide information on budgetary execution and analysis of variances between actual and budget. The Project program will be reflected in the MoA national budget. The consolidated budget will be approved by the SC.	N	M
Accounting: Poor policies and procedures, lack of qualified accountant staff (staff capacity); no familiarity with SYSCOAHADA system.	S	FM aspects handled by the FM team of the PCU to be set up: (a) The Project will adopt the SYSCOAHADA accounting system. Accounting procedures will be documented in the procedures manual. (b) The FM team headed by a	N	M

Risk	Risk Rating	Risk-Mitigating Measures Incorporated in Project Design	Conditions for Effectiveness (Y/N)	Residual Risk
		FM manager will be strengthened by individual consultants recruited competitively. (c) Training on IDA FM procedures will be provided to the staff as needed.		
Internal Control: Internal control system may be weak due to weak FM capacity of the team; or the current FM procedures may not be sufficient for this project. The lack of a procedures manual may lead to inappropriate use of the funds and delays in financial reporting. The SC may not be effective.	H	(a) Revise the FM procedures manual and training on the use of the manual. (b) Reinforce the internal audit function by training and closely monitoring, the IA will scrutinize the proclaimed accounting, financial, and operational procedures. The IA will report to the coordinator and share the report with the SC.	N	**S**
Funds Flow: (a) Risk of misused funds and delays in disbursements of funds to the IA and beneficiaries; (b) inefficient use of the funds; (c) risks of delay in the utilization of advances made to the implementing partner (IP); and (d) risks of delays in the justification of the use of advance made to the IA.	H	(a) In line with the FM manual, payment requests are to be prepared before disbursement of funds to contractors or consultants and implementing entities. (b) The ToRs of the internal auditor as well as the external auditors include regular field visits (physical verifications of works, goods, and services acquired). (c) A ceiling for expenditures that can be handled/paid in cash will be set up in the FM procedures manual. (d) Replenishment of bank accounts of IP at decentralized levels will be made through a simplified IFR (summary report). Supporting documents will be kept on their premises. (e) FM staff capacity will be strengthened before and during project implementation; (f) Anticorruption will be presented to the project team. (g) Transfers to IP will be made based on their utilization capacity.	N	S
Financial Reporting: (a) Inaccurate and delayed submission of IFRs at the central level of PCU because of delays	S	(a) A computerized accounting system will be used (for example, multiprojects and multisites).	N	M

Risk	Risk Rating	Risk-Mitigating Measures Incorporated in Project Design	Conditions for Effectiveness (Y/N)	Residual Risk
from IAs and the increase in the DFM activities; (b) workload leading to some delays in recording of expenditures as well as preparation of periodic financial reports; and (c) lack of motivation of staff working on IDA-financed project impacting the internal control and quality of the oversight of IDA funds by implementing entities.		(b) IFRs and financial statement formats were agreed during project negotiations. (c) One finance manager will lead the FM team of the PCU, and two additional FM staff (one principal accountant and one assistant accountant) will be recruited for the Project.		
Auditing: Delays in submission of audit report; scope of the mission may not cover expenditures incurred at decentralized level and other IA; and auditors selected may not be acceptable to IDA or may not conduct their assignments professionally.	S	(a) The project's institutional arrangements allows the appointment of adequate external auditors. ToRs (to be discussed before the Expressions of Interest are advertised) will include field visits and specific reports on finding physical controls of goods, services, and works acquired by IAs and beneficiaries. (b) Annual auditing arrangements will be carried out during project implementation period. (c) Audit due dates will be closely monitored by the World Bank FM team.	N	S
Fraud and Corruption: Possibility of circumventing the internal control system with colluding practices such as bribes and abuse of administrative positions. Misprocurement is a critical issue.	S	(a) The ToR of external auditor will comprise a specific chapter on corruption auditing. (b) nternal auditor will report to the coordinator, who in turn will share the report directly with the SC. (c) Copies of the IA reports will be submitted to the World Bank. (d) FM procedures manual revised two months after project effectiveness. (e) Robust FM arrangements (qualified and dedicated FM staff recruited under ToRs acceptable to IDA), quarterly IFR including budget execution and monitoring and physical progress. (f) Technical auditing. (g) Measures to improve transparency, such as providing information on project status to	N	S

Risk	Risk Rating	Risk-Mitigating Measures Incorporated in Project Design	Conditions for Effectiveness (Y/N)	Residual Risk
		the public, and to encourage participation of civil society, beneficiaries, and other stakeholders, are built into project design (reference section below on Governance Anti-Corruption).		
OVERALL FM RISK				**S**

Note: S = Significant; H = High; M = Medium.

Strengths and Weaknesses

34. **The design of the Project follows existing FM arrangements to implement World Bank-financed projects in Mali.** These arrangements require a parallel system (WAAPP-2A PCU) and to the extent possible, partial use of the country's system.

35. **Mali's political situation has affected its governance and increased corruption.** In the context of the Project, the main weaknesses include the lack of familiarity with, and capacity shortage in the areas of human resources at the DFM and the delays in the payment process observed in the public expenditure channel, as revealed during the pilot phase of the Technical Assistance Project for Governance and Fiscal Decentralization (P112821). However, an effective implementation of FM mitigation measures as well as a strengthened and effective oversight of the SC and the involvement of the country's institutions of control would mitigate the weaknesses identified at the country, project, and control levels.

FM Actions Plan

36. **The action plan in Table 3.4 indicates the actions to be taken for the Project to strengthen the project's FM system.**

Table 3.4. Remedial Action Plan

Issue/Topic	Remedial Action Recommended	Responsible Body/Person	Completion Date	FM Effectiveness Conditions
Staffing	Appointment of one principal accountant familiar with World Bank FM procedures completed and contracts signed	MoA/PCU	2 months after effectiveness	No
	Appointment of one assistant accountant familiar with World Bank FM procedures completed and contract signed	MoA/PCU	2 months after DA is opened	No
Information system accounting software	Acquisition and installation of an accounting software for the Project and training the users	MoA/PCU	3 months after effectiveness	No
Internal control	Revision on procedures manual	MoA/PCU	3 months after effectiveness	No

Issue/Topic	Remedial Action Recommended	Responsible Body/Person	Completion Date	FM Effectiveness Conditions
External auditing	Appointment of the external auditor completed and contract signed	MoA/PCU	5 months after effectiveness	No

Description of the Project FM Institutional Arrangements

37. **The FM team of the PCU embedded in the CNRA will be the World Bank and other donors' main counterpart and focal point for fiduciary aspects.** It will oversee the entire project fiduciary management including management of the funds and the DAs. The CNRA will be responsible primarily for (a) planning and budgeting; (b) disbursement and financial reporting; (c) procurement; and (d) internal controls and auditing. For this project, two individual consultants (one principal accountant, and one assistant accountant) familiar with World Bank FM procedures and requirements will be recruited competitively to handle the daily FM aspects of the Project. Appropriate FM tools, mainly an accounting software and an FM manual, will be updated.

Planning and Budgeting Arrangements

38. **Planning and budgeting processes of the Project will follow the guidance detailed in the Instruction No. 14-2628/MEF-SG signed by the MEF on August 12, 2014.** For this project, the FM unit of the PCU will prepare a consolidated Annual Work Plan and Budget (AWPB) to implement project activities, considering the project's components. The work plan and budgets will identify the activities to be undertaken and the roles of the respective parties involved in the implementation including the PCU and other implementing entities. The AWPB will provide detailed information on the amount allocated to each implementing entity per activity showing unit costs and quantities. AWPBs will be consolidated into a single document by the FM unit of the PCU with support from the other departments of the MoA. The AWPB will be submitted for approval to the SC, and thereafter, to IDA. There should be no objection later than November 30 of the year preceding the year that the work plan should be implemented.

Key Accounting Policies and Accounting Software

39. **An integrated financial and accounting system will be established and used by the FM unit of the PCU.** The project code and chart of accounts will be developed to meet the specific needs of the Project and documented in the manual of procedures being drafted. The prevailing accounting policies and procedures in line with the West African Francophone countries accounting standards—SYSCOHADA (OHADA Accounting System)—currently in use in ongoing World Bank-financed operations in Mali will apply. The accounting systems, policies, and financial procedures used by the Project will be documented in the project's administrative, accounting, and financial manual.

40. **For the Project to deliver on its objectives, a computerized FM system will be developed based on a specific project accounting software in use in other projects in the Mali portfolio that must be purchased and installed.** This software should be capable of recording transactions and reporting Project operations on time, including preparing Withdrawal Applications and periodic financial reports (IFR and annual financial statements). In a nutshell,

the system should integrate budgeting, operating, and cost accounting systems to facilitate M&E, and reporting.

Internal Control and Internal Auditing

41. The internal control system is intended to ensure the (a) effectiveness and efficiency of operations, (b) reliability of financial reporting, and (c) compliance with applicable laws and regulations. For this Project, the accounting, financial, and administrative procedures manual to be developed will document, explain, and describe work processes, information flow, authorization and delegation of authority, timing, job segregations, automatic and sequential controls, compliance with project objectives, and micro and macro rules and regulations. Applying the procedures set up in the manual will be mandatory for all staff at all levels. In addition to the procedures manual, all rules of the DFM/MoA that will not conflict with the manual will also apply to the Project.

42. **In addition, the WAAPP-2A internal auditor (individual consultant) will conduct the daily reviews of the Project expenditures including physical verifications of acquisition of works, goods, and services.** All deficiencies or circumvented practices identified will be communicated by the IA on time to the minister and/or senior management of the Project, mainly the SC, and the coordinator, for immediate corrective action as appropriate. One copy of the report will be communicated to the World Bank.

Funds Flow and Disbursement Arrangements

Designated Account

43. **One bank account**, a DA denominated in XOF (CFA Francs), will be opened at a commercial bank on terms and conditions acceptable to IDA to facilitate payment for eligible expenditures. The DA will be managed by the PCU according to the disbursement procedures described in the PIM and the Disbursement Letter.

44. **The IC also will be required to open a bank account** to separately manage the funds received from the Project. The account will be managed according to the disbursement procedures described in the Disbursement Letter, the PIM and fiduciary arrangements included agreed in the Subsidiary Agreement. An initial deposit of XOF 1 billion equivalent to four months' expenditures forecast will be released by IDA at the request of the PCU upon effectiveness. Payments to implementing partner organizations (for example, firms, contractors, NGOs, and government specialized entities), services providers, and suppliers will be made in accordance with the payment modalities, as specified in the respective contracts and the MoU. In the case of payments to UN agencies, the special World Bank disbursement procedures will be used to establish a 'Blanket Commitment'—for the relevant UN agency, the full amount can be transferred as an advance (UN advance) or in periodic installments. The credit will finance 100 percent of eligible expenditures of the Project inclusive of taxes.

Disbursement Methods and Processes

45. **Upon project effectiveness, an initial advance up to the ceiling of the DA (XOF 1 billion)** and representing four months forecasted project expenditures paid though the DA will be made into the DA and subsequent disbursements will be made on a monthly basis against the submission of SOE or records as specified in the Disbursement Letter reporting on the use of the initial/previous advance. Thereafter, the option to disburse against submission of quarterly unaudited IFR (also known as report-based disbursements) could be considered subject to the quality and timeliness of the IFRs submitted to the World Bank and the overall FM performance and arrangements as assessed in due course. In case of the use of the report-based disbursement, the DA ceiling will be equal to the cash forecast for two quarters as provided in the quarterly unaudited IFR. If and when IFRs are used as the basis of disbursements, the contents and format will be revised to include disbursement-related information. In addition to the 'advance' method, for contracts above a predetermined threshold for eligible expenditures (for example, 20 percent of the DA's ceiling), the option of disbursing the funds through direct payments to a third party will also be available. Another acceptable method of withdrawing proceeds from the IDA credit is the special commitment method, whereby IDA may pay amounts to a third party for eligible expenditures to be paid by the recipient under an irrevocable Letter of Credit.

Disbursement of Funds to Beneficiaries, Contractors, Suppliers, and Implementing Partners Including UN Agencies

46. **The PCU will make payments to IAs, contractors (including the IC), and suppliers, with regard to the specified activities in the components of the Project.** Payments will be made in accordance with the payment modalities specified in the respective contracts/conventions. The criteria for payment, reimbursement, and evidences for services delivered will be detailed in the PIM. The PCU may also consider the findings of the internal audit function while approving the payments. The IA and the FM team will reserve the right to verify the expenditures ex post, and refunds might be requested for non-respect of contractual/convention, such as Delegated Management Agency clauses. Misappropriated activities could result in the suspension of financing for a given entity.

47. **When a UN agency is used as the IA or a supplier, upon signing of the MoU between the Government and UN agency, application for withdrawal of proceeds will be prepared by the PCU and submitted to IDA.** The special World Bank disbursement procedures will be used to establish a 'Blanket Commitment' to allow the amount to be advanced. Funds withdrawn from the IDA credit account will be deposited directly into the UN bank account provided by the UN agency for the project activities to be implemented by that UN agency. The amount advanced will be documented through the quarterly utilization report to be provided by the UN agency.

48. **The disbursement schedule**, according to disbursement category is shown in table 3.5.

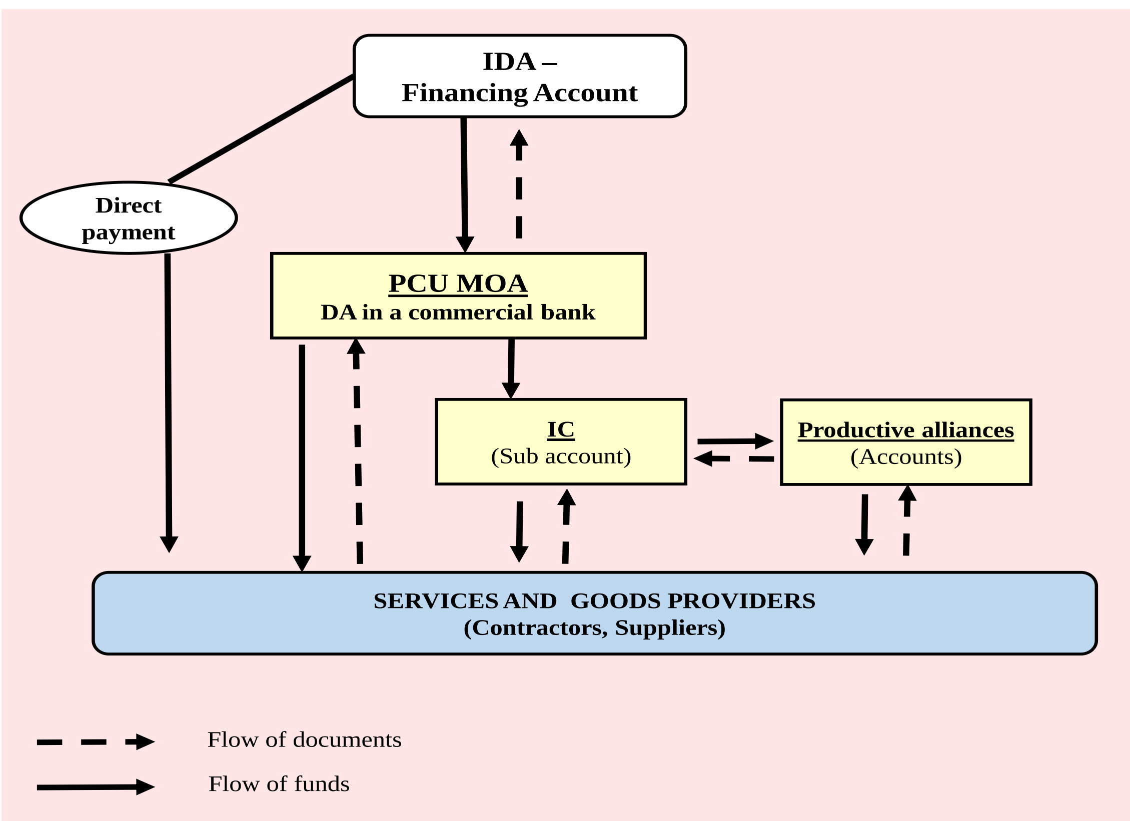
Table 3.5. Disbursement Schedule

Category	Amount of the Credit Allocated (SDR equivalent)	Amount of the Credit Allocated (US$ equivalent)	Percentage of Expenditures to be Financed (inclusive of Taxes) (%)
(1) Works, goods, non-consulting and consultants' services, operating costs, stipends, and training under Subcomponent 1(a), Component 2, Subcomponent 3(a), and Component 4	14,300,000	19,950,000	100
(2) Works, goods, non-consulting and consultants' services, operating costs, stipends, and training under Component 1(b)	2,300,000	3,250,000	100
(3) Subprojects for productive alliances under Component 3(b)	4,900,000	6,800,000	100
TOTAL	**21,500,000**	**30,000,000**	**100**

Flow of Funds

49. **Funds will flow from the DA to executing agencies' accounts and suppliers' and contractors' productive alliances beneficiaries' accounts.**

Figure 3.1. Flow of Funds



Local Taxes

50. **Funds will be disbursed in accordance with project categories of expenditures and components, as shown in the Financing Agreement.** Financing of each category of expenditure/ component will be authorized at 100 percent, inclusive of taxes according to the current country financing parameters approved for Mali.

Retroactive Financing

51. **To facilitate early implementation, withdrawals up to an aggregate amount not exceeding SDR 2 million (US$2.8 million equivalent) may be made for eligible expenditures for payments made on or after December 31, 2015**, but prior to the date of the Financing Agreement, for eligible expenditures under categories (1) and (2).

Financial Reports

52. **Financial reports will be designed to provide quality and timely information on project performance to project management,** IDA, and other relevant stakeholders. Formats of the financial reports was developed and agreed during project negotiation. The consolidated quarterly IFR includes the following financial statements: (a) statement of sources of funds and project revenues and uses of funds; (b) SOEs classified by project components and or disbursement category (with additional information on expenditure types and IAs 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) DA activity statements. The quarterly IFR will be prepared and submitted to IDA within 45 days after the end of each calendar quarter and will reflect the activities implemented directly by the PCU as well as any UN agency and other implementing entities.

53. **The Project will produce annual financial statements** in compliance with international accounting standards and IDA requirements. 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, 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. The financial statements will constitute the entry point of the external auditor's annual diligences.

Auditing Arrangements

54. **A qualified external audit firm will be recruited** under a ToR and procedures acceptable to IDA, given the capacity issues of the Supreme Audit Institution (Section of Accounts of the Supreme Court). This firm will annually audit the project's financial statements. The PCU will prepare the ToR for the audit, and the selection process will be launched not later than four months after project effectiveness. The scope of the audit will cover the activities implemented at central and decentralized levels by the PCU and any partner IAs. However, the activities managed directly by any UN agency will be excluded from the scope of the external auditor appointed by the Government.

55. **The annual audited financial statements together with the auditor's report and management letter** covering identified internal control weaknesses will be submitted to IDA no later than six months after the end of each fiscal year. A single audit opinion will be issued that covers project income and expenditures, DAs, and the IFR. The report also will include specific controls such as compliance with procurement procedures and financial reporting requirements and consistency among financial statements, management reports, and field visits (such as physical control). The audit report thus will refer to any incidence of noncompliance, ineligible expenditures, and misuse identified during the audit mission.

56. **Use of UN agencies: Audit of the funds managed**. The funds transferred to any UN agency will be managed by the agency according to UN Financial Regulations and Rules. As a result, reliance will be placed on the UN agency's external auditor's reports as necessary. To mitigate any risks of inappropriate use of the project funds, some alternative mechanisms should be established, including (a) at least two field-based visits being conducted during the first 12 months of the project implementation period. The supervision intensity will be adjusted over time considering the project's FM performance and FM risk level; (b) the Government having the entire responsibility of ensuring that works, goods, and services are delivered effectively to the intended beneficiaries during project implementation. However, where deemed appropriate (for example, UN agency systems and IFRs have showed some weaknesses or deficiencies), the World Bank team may request the Government to establish adequate arrangements to conduct some physical inspections of goods and services delivered by the UN agency; and (c) the World Bank FM team will have adequate access to the financial information, documents, and records for activities implemented by the UN agency on behalf of the GoM.

Table 3.6. Audit Reports

Audit Report	Due Date
The project audit reports (audit report and management letter)	• Not later than June 30 (2000 + N) if effectiveness has occurred before June 30, (2000 + N - 1). • Not later than June 30 (2000 + N + 1) if effectiveness has occurred after June 30, (2000 + N - 1)

Financial Covenants

57. **Financial covenants are the standard ones described in legal documents** and comprise maintaining project accounts in accordance with sound accounting practices, audit requirements, and records well-kept and secured.

Procurement

Reference to National Procurement Regulatory Framework

58. **The Country Procurement Assessment Review for Mali was carried out in 2007** and an evaluation of the quality of the national procurement system based on the Designated Assistance Committee of the Organization for Economic Co-operation and Development (OECD/DAC) "Methodology of national Procurement Systems Assessment" was made in September 2011 under EU funding. The assessment of the procurement regulation highlighted that the existing procurement principles and most of the procedures needed to be strengthened.

The recommended actions include (a) strengthening of the legislative and regulatory framework; (b) strengthening of the institutional and management capacity; and (c) reinforcing the integrity and transparency of procurement.

59. **In this regard, the Government has taken the following steps**: (a) adopted an action plan based on the finding of the Country Procurement Assessment Review; (b) set up a new legal and regulatory framework under the new Procurement Code; (c) issued procurement regulations and Standard Bidding Documents; and (d) created a regulatory body for public procurement and established procurement units in regions and technical ministries, including the MEF.

60. **In 2013, under the initiative of the West African Economic and Monetary Union (WAEMU) Commission, the World Bank funded a study on how to boost budget execution for a greater development impact.** Data suggested that a significant part of the capital investment budgets of WAEMU member states is underspent. The World Bank undertook the 2013 study to provide a comprehensive review of the systems, processes and practices used by finance and procurement to manage capital expenditure and to identify practical recommendations that would allow countries to enhance the levels of budget execution. The country report of Mali recommended a series of actions to reduce the huge delays of procurement process in Mali and to improve the value of money. The regional action plan of this study was approved on February 28, 2014 when the WAEMU '*Comité d'Experts*' (Experts Committee) met in Burkina Faso. Mali had already implemented some measures of the action plan before its approval by the WAEMU Council of Ministers held in June 28, 2014 in Dakar.

61. **A Prime Ministerial Decree (Decree No. 2014-0256/PM-RM)** passed on April 10, 2014 determined the authorities in charge of concluding and approving contracts and raised the threshold for concluding and approving for all authorities. In theory, this decree shortened the procurement cycle for number of contracts. The subsequent ministerial decree signed on April 25, 2014, confirmed the new thresholds for concluding and approving contracts and reduced the time limit for the different stages of the procurement cycle. Particularly, in a major change, the April 25 decree removed the double review by the Government/donors for contracts subject to the prior review of donors (Decree No. 2014-1323/MEF-SG). These different measures aim to reduce the procurement cycle and to boost the budget execution.

62. **The current regulation governing Public Procurement in Mali is Decree No. 2015-0604 /P-RM** dated September 25, 2015 and its rules for applying Decree No 2015-3721 /MEF-SG dated October 22, 2015. These new provisions (a) confirmed the elimination of the double review of Government/donors for contracts subject to the prior review of donors; (b) extended the code to all contracts regardless of amount; and (c) presented new procurement methods.

63. **The World Bank has assessed the September 25, 2015 country procurement regulation and found the principles and most of the procedures in compliance with World Bank procurement standards**. In general, it is considered that the country's new procurement procedures do not conflict with the Bank's Procurement Guidelines. However, in any conflict cases, the World Bank's provisions shall prevail. Nevertheless, to ensure that the NCB procedure for goods and works to become acceptable to the World Bank, some special provisions are required regarding advertising, access by foreign bidders to participate in NCB, limiting domestic preference, deadlines for submission of bids, evaluation and contract award process,

Standard Bidding Documents, fraud and corruption clauses in bidding documents, inspection by the World Bank, and obstructive practices, and debarment under the national system. The special provisions are outlined below.

64. **NCB will be acceptable to the World Bank subject to the procedures below** and as reflected in the Financing Agreement.

(a) **Advertising.** The General Procurement Notice (GPN) would be advertised in the United Nations Development Business online and on the World Bank's external website; specific invitation to bids would be advertised in at least one national widely circulated newspapers or on a widely used website or electronic portal of the recipient with free national and international access.

(b) **Standard Bidding Documents.** All Standard Bidding Documents to be used for the Project shall be found acceptable to IDA ('the Association') before their use during the implementation of the Project.

(c) **Eligibility.** No restriction based on nationality of bidder and/or origin of goods shall apply. Foreign bidders shall be allowed to participate in NCB without restriction and shall not be subject to any unjustified requirement, which would affect their ability to participate in the bidding process. Recipient's government-owned enterprises or institutions shall be eligible to participate in the bidding process only if they can establish that they are legally and financially autonomous, operate under commercial law, and are not dependent agencies of the recipient.

(d) **Bid preparation.** For emergency cases declared by the recipient, the evidence of such emergency must be transmitted to the Association. This must be recognized by the Association and the Association has to grant its approval for less time for the bids submission.

(e) **Preferences.** No preference shall be given to domestic and/or the WAEMU countries' bidders; to domestically/WAEMU area manufactured goods; and to bidders forming a joint venture with a national firm or proposing national subcontractors or carrying out economic activities in the territory of the recipient.

(f) **Fraud and corruption.** In accordance with the World Bank Procurement Guidelines, each bidding document and contract shall include provisions stating the World Bank's policy to sanction firms or individuals found to have engaged in fraud and corruption as set forth in the paragraph 1.16 (a) of the Procurement Guidelines.

(g) **Right to inspect and audit.** In accordance with paragraph 1.16 (e) of the Procurement Guidelines, each bidding document and contract financed from the proceeds of the financing shall provide that (i) the bidders, suppliers, and contractor and their subcontractors, agents personnel, consultants, service providers or suppliers, shall permit the Association, at its request, to inspect their accounts, records and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Association and (ii) the deliberate and material violation by the bidder, supplier, contractor or subcontractor of such provision may amount to obstructive practice as defined in paragraph 1.16 (a) (v) of the Procurement Guidelines.

(h) **Suspension and debarment.** The cases of suspension/debarment under the recipient system shall result from fraud and corruption as set forth in paragraph 1.16 (a) of the Procurement Guidelines and approved by the Association, provided that the particular suspension/debarment procedure afforded due process and that the suspension/debarment decision is final.

65. **Use of World Bank Guidelines.** Procurement for the proposed project will be carried out in accordance with the World Bank's 'Guidelines: Procurement under IBRD Loans and IDA Credits,' dated January 2011, revised in July 2014; and 'Guidelines: Selection and Employment of Consultants by World Bank Borrowers,' dated January 2011, revised in July 2014; and the provisions stipulated in the Legal Agreement. In addition to complying with IDA's Guidelines, procurement procedures also will comply with the Procurement Decree. However, in the event of a conflict between IDA Guidelines and the Procurement Law, the World Bank regulations will prevail.

66. **The various items under different expenditure categories are described in general below.** For each contract to be financed by the credit, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame were agreed between the borrower and the World Bank in the PP during negotiations. The PP will be updated at least annually, or as required, to reflect the project's actual implementation needs and institutional capacity. The implementation entities, as well as contractors, suppliers, and consultants will observe the highest standard of ethics during procurement and execution of contracts financed under this project. 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA and Grants,' dated October 15, 2006, and revised in January 2011 (the Anticorruption Guidelines) shall apply to the Project.

67. **Advertising.** After the Project is approved by the World Bank Board and before effectiveness, a GPN will be prepared and published in United Nations Development Business online, on the World Bank's external website, and in at least one widely circulated national newspaper or on a widely used website or electronic portal of the recipient with free national and international access. The GPN will show all International Competitive Bidding (ICB) for goods, works, and non-consulting services contracts and all consulting services involving international firms. Specific Procurement Notices for all goods and works to be procured under ICB and expressions of interest for all consulting services that cost the equivalent of US$300,000 and above also will be published in the same manner as the GPN.

68. **Procurement of goods, works, and non-consulting services.** Procurement will be done under ICB, Limited International Bidding, or NCB using the World Bank's Standard Bidding Documents for all ICB and National Standard Bidding agreed with or satisfactory to the World Bank. Shopping in accordance with paragraph 3.5 of the Procurement Guidelines will be used to procure readily available off-the-shelf goods of values not exceeding US$100,000; and for simple civil works not exceeding US$200,000. The shopping thresholds for the purchase of vehicles and fuel may be increased up to US$500,000, based on circumstances and with the bank approval. Direct contracting may be used when necessary if agreed in the PP in accordance with the provisions of paragraphs 3.7 and 3.8 of the World Bank's Procurement Guidelines.

69. **Selection and employment of consultants.** Whenever possible, the selection method will be Quality-and-Cost-Based Selection (QCBS). The following six additional methods may be used when appropriate: Quality-Based Selection (QBS); Selection under a Fixed Budget (FBS); and Least-Cost Selection (LCS); Selection Based on Consultants' Qualifications; Single Source Selection (SSS) (firm and individual), and Selection of Individual Consultants.

70. Shortlists of consultants for services estimated to cost less than the equivalent of US$400,000 per contract for engineering and contract supervision and US$200,000 per contract for other consultancy assignments may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the World Bank's Consultant Guidelines. However, if foreign firms express interest, they will not be excluded from consideration.

71. SSS may be employed with prior approval of the World Bank and will be in accordance with paragraphs 3.8–3.11 of the Consultant Guidelines. All services of individual consultants will be procured under contracts in accordance with the provisions of paragraphs 5.1–5.6 of the Consultant Guidelines.

72. **Procurement implementation arrangements.** The Project will be implemented by the WAAPP-2A Coordination Unit which is embedded in the CNRA. It will be composed of WAAPP-2A Coordination Unit key staff (a coordinator, a procurement specialist, a FM specialist, an M&E specialist, and a safeguards specialist) who will monitor the day-to-day operation of project implementation, especially with regard to fiduciary responsibilities. To accommodate the additional workload of the SACP, these key staff will be supported by a procurement assistant, a principal accountant, and an assistant accountant. As the main coordinating organ, the CNRA will be responsible for all project activities and work closely with, and supervise the work of consultants contracted to support project implementation including the IC. The CNRA also will be responsible for preparing periodic reports and ensuring that project stakeholders and beneficiaries comply with the PIM. A robust M&E will be set up to verify the work plan achievements and periodically update the Results Framework.

73. The procurement team's main tasks will be (a) preparing and/or submitting procurement documents that require World Bank review and/or clearance; (b) contributing to the preparation of AWPBs, semiannual and annual progress reports, and midterm and completion review reports; and (c) updating and implementing the PP and submitting to the World Bank. The coordination and oversight of the procurement activities of the Project will be done by the procurement specialist of the WAAPP Coordination Unit assisted by the procurement assistant recruited under the Project.

Procurement Arrangements for Training and Workshops

74. For all training activities, before the training can be undertaken, the PCU shall prepare and submit for World Bank approval, annual training plans and budgets. These will include the objectives of the training, targeted participants, format of delivery and the qualifications of the resource persons as well as the expected impacts of the training. When the training is to be outsourced, the procurement of the trainer or the training institution shall be integrated in the project PP and agreed with the World Bank. Similarly, the procurement of venues for workshops and training materials will be done by comparing at least three price quotations.

Assessment of the Capacity to Implement Procurement

75. Procurement capacity assessment is carried out to determine the institutional and management arrangements that would ensure proper execution of the Project. The assessment is focused primarily on the capacity and internal arrangements of the recipient and the executing agency to carry out by themselves procurement planning and implementation, or otherwise proposed alternative arrangements to ensure transparent and efficient implementation.

76. **Assessment of the WAAPP Coordination Unit embedded in the CNRA.** A procurement assessment has been carried out in the WAAPP Coordination Unit which is embedded in the CNRA. Procurement issues and risks for the implementation of the Project that were identified include (a) specificities of the SACP are not considered in the current version of WAAPP-2A's manual of procedures; (b) insufficient use of PP as a planning tool and for decision making; (c) inadequate communication with the technical structures, may lead to delays in the drafting of ToRs and, technical specifications as well as poor cost estimation; (d) timeouts in the implementation of some activities, mainly in bids/proposals evaluation committee management; (e) lack of proficiency of the internal mechanism to follow up procurement; and (f) unsuitability of the handling/managing of archives.

77. The overall procurement risk for the proposed project is considered Substantial. To mitigate the risks identified in the procurement assessment, an action has been prepared, in consultation with the client (Annex 3). With the implementation of the proposed measures of the action plan and the support of the World Bank team, the overall procurement risk will be rated Moderate**.**

Table 3.7. Action Plan for Strengthening Procurement Capaity

No.	Key Risks	Mitigation Actions	By Whom	By When
1	Specificities of the SACP are not addressed in WAAPP-2A manual	Revise the current procedures of WAAPP-2A manual to consider the specificities of the SACP	PCU	No later than 3 months after project effectiveness
2	Insufficient use of PP for planning and decision making	Transmit regularly updated PP, including comments about delays and copy the MoA and the World Bank	PCU	Each month
3	Poor ToRs, insufficient technical specifications and poor cost estimation	Closely monitor PPs on a monthly basis; closely monitor and exercise quality control on all aspects of the procurement process, including evaluation, selection, and award	PCU/technical structures/MoA	Throughout project implementation
4	Large delay in the implementation of some activities, mainly evaluation committee management, including infrastructure study contracts	Closely monitor and exercise quality/control on all aspects of the procurement process, including evaluation, selection, and contract award	PCU/MoA	Throughout project implementation
5	Internal follow-up mechanism may not be proficient in procurement	Systematically apply quality/control of documents and all procurement processes; all interactions related to the procurement responsibility must	PCU	Throughout project implementation

No.	Key Risks	Mitigation Actions	By Whom	By When
		be consistent with the PIM and the institutional arrangements agreed on with the recipient		
6	Inadequate handling and managing of procurement archives	Provide adequate equipment to the procurement archive and set up an adequate filling system for project records to ensure easy retrieval of information/data	PCU	No later than 3 months within the project implementation
7	Additional workload due to SACP procurement activities	Hire of an individual consultant procurement assistant adequately experienced in use of the World Bank procedures Attend training sessions for procurement staff regarding procurement issues	PCU/MoA	No later than 2 months within the project implementation

78. **Operational costs.** These costs are the incremental expenses incurred by the Project based on the AWPBs as approved by the Association, for project implementation, management, and M&E, including reasonable costs for utilities (electricity and water), office rental and maintenance, materials and supplies (but not the purchase of equipment), bank charges, communications, vehicle operation, maintenance, and insurance (but not the purchase of fuel), equipment maintenance, public awareness-related media expenses, travel and supervision, salaries of contractual and temporary staff, and bonuses of members of the borrower's civil service. These items will be procured using the procedures detailed in the manual of procedures, which will be reviewed and found acceptable to IDA before credit effectiveness.

Procurement Prior Review Thresholds

Table 3.8. Thresholds for Procurement Methods and Prior Review for High Risk

Expenditure Category	Contract Value (Threshold) (US$)	Procurement Method	Contract Subject to Prior Review (US$, thousands)
1. Works	15,000,000 or more	ICB	All
	Below 15,000,000	NCB	All, except contracts below 5,000
	Below or equal to 200,000	Shopping	None, unless contract specified in the PP
	No threshold	Direct Contracting	All, except contracts below 100
2. Goods and Non-consulting services	3,000,000 or more	ICB	All
	Below 3,000,000	NCB	All, except contracts below 500
	Below or equal to 100,000	Shopping	None, unless contract specified in the PP
	No threshold	Direct Contracting	All, except contracts below 100
3. Consultancy	Firms	QCBS, QBS, FBS, LCS, QC	All contracts of 200 and more and contracts specified in the PP
	Individual	Selection of Individual Consultants (at least 3 resumes)	All, except contracts below 200
	No threshold	Single-Source Selection	All, except contracts below 100

Note: All ToRs for consulting services will be subject to IDA's prior review, regardless of the estimated contract amount.

79. **PP.** The PP for project implementation has been prepared. It indicates procurements to be carried out over the first 18 months of the Project. The PP has been discussed and agreed by the recipient and the World Bank task team during negotiations. The PP will be updated at least annually, or more frequently as required, to reflect the actual project implementation needs and improvements in institutional capacity.

80. **Procurement supervision.** In addition to the prior review and supervision to be carried out by the World Bank, at least two supervision missions each year and one visit to the field to carry out post review of procurement actions are recommended.

81. **Postreview procurement.** Post reviews can be done either by IDA's specialists or by independent consultants hired under the IDA project according to procedures acceptable to the World Bank to ascertain compliance with procurement procedures as defined in the legal documents. Procurement post reviews should cover at least 20 percent of contracts subject to post review depending on the risk level. Post review consists of reviewing technical, financial, and procurement reports carried out by the recipient's executing agencies and/or consultants selected. Procurement performance will be assessed annually (in the form of procurement audits by an external agency). The threshold levels for various methods of procurement may be revised based on the assessment results.

Summarized Procurement Plan

Table 3.9. Main Works, Goods, and Non-Consulting Services to be Procured

Ref. No.	Contract Description	Estimated Amount (US$, thousands)	Procurement Method	Domestic Preference (Yes/No)	Prior or Post Review
1	OSS upgrade IT equipment (including OSS software and Investors Tracking System)	300	NCB	No	Post
2	FM software configuration	15	Direct Contracting	No	Prior
3	Vehicles for PCU and IC	500	NCB	No	Prior
4	Vehicles for API-Mali	180	Shopping	No	Post
5	Furniture and computer equipment for PCU	40	Shopping	No	Post
6	Rehabilitation of 300 km of rural roads (100 km in Sikasso, 200 in Yanfolila)	7,500	NCB	No	Prior
7	Rehabilitation of three collection facilities (Sikasso) and construction of three collection facilities (Yanfolila)	600	NCB	No	Post
8	Construction of a conditioning and exports facility	1,000	NCB	No	Prior
9	API-Mali website	70	Shopping	No	Post

Table 3.10. Main Consulting Assignments of the Project

Ref. No.	Contract Description	Selection Method	Review by Bank (Prior/Post)	Estimated Amount (US$)
Component 1: Expand Mango Processing and Investment Opportunities				
1	TA support to mango nursery	QCBS	Post	150
2	Technical training to rural assemblers and TA support to the IFM (rural assemblers/brokers) and statistical database/geolocation	IC	Prior	250
3	Selection and supervision of cooperatives, traders, and millers with connections to support contracting and implementation	QCBS	Prior	490
4	Support for credit records, warranties, and sources of funding for orchards and cooperatives	QCBS	Prior	250
5	Support supply exporters/millers, cooperatives OHADA assistance and legal assistance contract production partnerships	QCBS	Prior	200
6	Support to exporters and millers on food safety, certification, and compliance (EU)	QCBS	Post	200
7	Comparative studies of trade facilitation and export routes and recommendations	QCBS	Post	150
8	Advisory support to exporters and millers on logistics flows and contracting (trucks, port, airports) #1	IC	Post	50
9	Advisory support to exporters and millers on logistics flows and contracting (trucks, port, airports) #2	IC	Post	50
10	Advisory support to exporters and millers on logistics flows and contracting (trucks, port, airports) #3	IC	Post	50
11	Advisory support to exporters and millers on logistics flows and contracting (trucks, port, airports) #4	IC	Post	50
12	Staff 1 API-Mali	IC	Prior	170
13	Staff 2 API-Mali	IC	Prior	170
14	Staff 3 API-Mali	IC	Prior	170
15	Staff 4 API-Mali	IC	Prior	170
16	Staff 5 API-Mali	IC	Prior	170
Component 2: Improve Access to Mango Production Areas				
17	Consultant for technical studies and specifications of 300 km of rural roads and preparation of bid documents and supervision of works	SSS	Prior	500
18	External technical audit of roads quality	QCBS	Post	150
19	Consultant for technical studies for the construction and rehabilitation of six collections facilities, preparation of bid documents, and supervision of works	QC	Post	35
20	Consultant for technical studies and specifications for the construction of conditioning and exports facility	QC	Prior	90
Component 3: Foster Animal Feed Production				
21	Trainings program for productive alliances consultants - BDS	QBS	Prior	540
22	Trainings program for productive alliances consultants - Extension	QBS	Prior	540
23	TA for pre-investments activities	QBS	Prior	1,100
24	Consultant for technical studies for equipment and infrastructure of all subprojects and supervision of works	QC	Prior	320

Ref. No.	Contract Description	Selection Method	Review by Bank (Prior/Post)	Estimated Amount (US$)
Component 4: Strengthen Project Implementation				
25	Procurement assistant	IC	Prior	150
26	Principal accountant	IC	Prior	180
27	Assistant accountant	IC	Prior	125
28	Project director	IC	Prior	230
29	Project assistant	IC	Post	40
30	Infrastructure specialist	IC	Prior	165
31	Financing specialist	IC	Prior	165
32	Value chains specialist	IC	Prior	165
33	Update of project implementation manual	IC	Prior	20
34	Institutional contractor	QBS	Prior	1,850
35	External auditor	QCBS	Prior	40
36	Monitoring and evaluation assistant	IC	Prior	125

Note:
IC (selection method) = Individual Consultant

Environmental and Social (including Safeguards)

Social

82. **The proposed project is expected to have a positive social impact.** It will benefit the selected groups in direct and indirect ways. First, individuals who are involved in agriculture in the project's geographic area will gain from trainings and capacity-building activities, leading to greater productivity and earnings as well as access to new all-season roads and the acquisition of goods and better post-harvest facilities. Second, selected/targeted farmers, traders, producer organizations, and professional and interprofessional organizations participating in the value chains that will contribute to targeted segments will be able to raise the quality, governance, and sustainability of their institutions and increase their capacity to generate revenue for their members.

83. **The potential negative social impacts of this project, which could arise from the rehabilitation or construction of infrastructure, are likely to be site-specific and easily mitigated.** The potential adverse social impacts, regarding both segments of the Project, could arise from the following activities: (a) rehabilitation of rural roads and (b) rehabilitation and construction of post-harvest facilities. Potential adverse social effects are expected to be the loss of lands, the loss of fields or loss of access to assets (for example, planted trees/crops), and the loss of livelihoods and sources of income.

84. **In the course of implementing the SACP activities, all necessary measures complying with the World Bank Operational Policy 4.12 on Involuntary Resettlement will be taken** to reduce resettlement and minimize temporary use and acquisition of valuable lands by attentive examination of implementation options: (a) minimizing displacement and (b) providing a compensation mechanism. Wherever and to the extent possible, the Project will attempt to strengthen the fundamental objective of avoiding and minimizing displacement. In

case displacement is necessary, the compensatory mechanism will be triggered for affected persons who meet eligibility criteria.[67]

85. **All land users who experience project impact, irrespective of the property right to lands, are determined to be PAP, and have the right to compensation (or alternative forms of help).** The Operational Policy covers direct economic and social impacts that result from the Project and are caused by (a) the involuntary acquisition of land resulting in relocation or loss of shelter, loss of assets or access to assets, or loss of income sources or means of livelihood, whether or not the affected persons must move to another location or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons.

86. **Displaced persons** will be classified in one of the following groups:

(a) Those who have formal legal rights to land, including holders of customary and traditional rights recognized in Mali

(b) Those who do not have formal legal rights to land at the time the census begins, but have a claim to such land or assets as long as they are recognized under the Malian laws or become recognized through a process that will be detailed in the RAP

(c) Those who do not have recognizable legal right or claim to the land they are occupying

87. **Unlike groups (a) and (b), persons of group (c) will be provided only with resettlement assistance and will not benefit from compensation for the land occupied.**

88. **Affected persons who have lost assets, livelihoods, or access to livelihoods as a direct result of the Project will be identified during the preparation of the RAP** and consulted to identify compensation and assistance that can be provided to help them restore their incomes. These measures will include job placement assistance and/or training. In the event that livelihoods are affected, the RAP will include specific measures for compensation and supporting livelihood restoration. Consequently, no direct or indirect long-term negative impacts are anticipated from the implementation of the Project. The PCU will recruit an environmental and social safeguards specialist to ensure the preparation and implementation of the RAPs, should they become necessary. The budget for this recruitment, related training, and other activities has been integrated in the project costing.

89. **An RPF has been prepared for the Project (August 2016 version)** and approved by the DNACPN, the national agency in charge of environmental impact assessments and pollution and nuisance control. The RPF has been disclosed in-country on September 29, 2016, and has been publicly disclosed on October 3, 2016, through World Bank Operations Portal 3.0 (formerly InfoShop). The budget to implement the RPF is estimated at US$434,500 (XOF 252 million). The cost of compensation and assistance to affected persons, which is the GoM responsibility, will be estimated in the respective the RAP.

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[67] The eligibility criteria of PAP will be clearly defined in the RAP.

90. **Gender—the Project will have a positive impact on gender in Mali.** For instance, rural entrepreneurship is an excellent mechanism to involve women because of their potential in this area, particularly for transformation of agricultural and livestock products and access to finance. Women's participation will be proactively encouraged through specific actions that will ensure equal opportunities and reduce unequal outcomes. Therefore, it is expected that at least 40 percent of rural entrepreneurs, farmers, and enterprises supported by the Project will be women.

91. **Public consultation and communication.** This project builds on continuing consultation and communication among stakeholders, from the public sector (line ministries and departments, agencies, local authorities), the private sector (farmers, traders, producers, industries, interprofessional organizations), and civil society. Different stakeholders are included in the SC, with different roles and responsibilities (as described in the project implementation arrangements). All of these stakeholders were strongly involved during project preparation and their inclusion in the SC is an additional indication of their commitment to the Project. The preparation of this project already has allowed the establishment of communication bridges between the Government, the private sector, and civil society.

92. **The SACP requires a strong commitment from mango and animal feed value chains stakeholders**, including producers and cereal traders (maize) cooperatives and mango value chain actors (producers, processors, exporters), and mobilization of elected members of local authorities, traditional and religious leaders, and communities. Before starting the clearing and settlement process, the Project will conduct meaningful consultations and provide the PAP with the opportunity to contribute to the project activities' design and implementation, thereby reducing the likelihood of displacement and conflicts. PAP and relevant stakeholders will be systematically informed on the process of land acquisition.

93. **Particular attention will be given to vulnerable groups** including women, children, the elderly, and the disabled. Specific vulnerable groups have been further identified in the ESMF.

94. **The Project also will establish a grievance redress mechanism** enabling PAP and communities to express dissatisfaction and claim compensation for damages. Affected individuals and households will be informed in advance about this grievance process. The grievance redress mechanism will be designed to provide a transparent, predictable, and credible process for all stakeholders, thereby contributing to effective, fair, and lasting outcomes.

Environment

95. **Environmental Assessment policy (OP/BP 4.01)** is triggered and the Project is rated 'B'. While it will include activities that will positively affect the environment, the rehabilitation and construction of infrastructure as well as the increase in industrial activity and intensification of agricultural production may have adverse impacts on soil, water, air quality, flora, and fauna. An **ESMF** has been prepared to ensure that the environmental and social concerns of the project activities are properly considered from the planning phase through to the implementation and exploitation phases.

96. **Negative impacts** may include, among others, use of chemicals (pesticides, insecticides), health risk for rural population, contamination of soils and surface water, waste generation,

increased noise because of machines and vehicles, dust pollution, destruction of marketing and drying areas, accident risks, proliferation of mosquitoes, and temporary obstruction of roads. Such adverse impacts, however, would be site-specific and fairly easy to mitigate. More specifically, in addition to the Environmental Assessment, the Project triggers the following safeguard policies:

(a) **Pest Management (OP/BP 4.09).** As part of the productive alliances model, subprojects may finance (in the co-financing part) pesticides, fertilizers, or application equipment. As part of the TA to farmers, cooperatives, traders, and processors, all beneficiaries will receive trainings that include the promotion of IPM practices, particularly in mango production areas to fight fruit flies. An **IPMP** has been prepared, approved and disclosed (in-country on September 29, 2016, and publicly disclosed on September 30, 3016, through World Bank Operations Portal 3.0). The budget to implement the IPMP is estimated at US$287,900 (XOF 167 million).

(b) **Physical Cultural Resources (OP/BP 4.11).** Rural roads improvements and other civil works may potentially affect cultural and historical heritage along the selected corridors. The ESMF includes the appropriate mitigation measures (chance find procedures) as well as clauses for contractors to be used in case of discovery of cultural relics or archaeological remains during the works.

97. **The framework provides guidance for the rating of all project activities** by the CNRA (WAAPP Coordination Unit) before their financing.

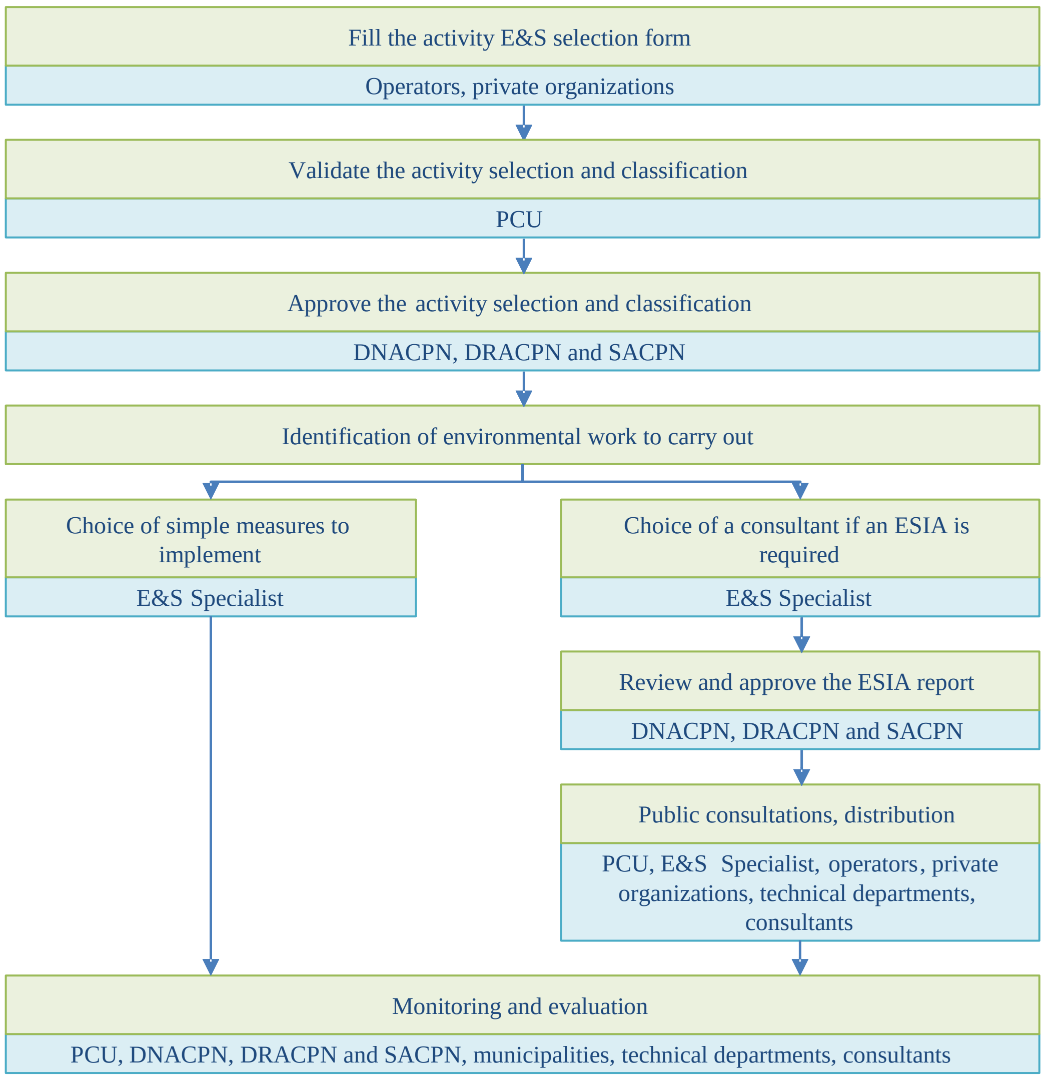
(a) **Category 'B'** refers to activities with substantial environmental and social impacts. They will require the preparation of an ESIA in accordance with Malian law and World Bank requirements. This category is expected to include all rural road improvement works.

(b) **Category 'C'** refers to activities with minor environmental and social impacts. They will require the preparation of an ESMP, which will detail measures based on the ESMF to mitigate potential negative impacts. This category is expected to include all post-harvest facilities works as well as the acquisition of equipment and assistance to expand orchards.

98. **The ESMF details a series of measures to reinforce the capacities of involved institutions** and ensure that appropriate mitigation measures will be in place for each activity: (a) recruiting an environmental and social specialist responsible for screening activities and drafting of the ESMP; (b) realizing an ESIA for all activities with substantial environmental and social impact; (c) building the capacity of and training all stakeholders involved in the SACP implementation; (d) organizing meetings among local, regional, and national stakeholders; (e) drafting an Environmental and Social Manual of Procedures; and (f) preparing of a code of practice related to phytosanitary products utilization.

99. **The institutions responsible** for each step of the environmental and social review are detailed in figure 3.2.

Figure 3.2. Environmental and Social Review Process



Note: SACPN = Service Sanitation and Control of Pollution and Nuisances (*Service de l'Assainissement et du Contrôle des pollutions et des Nuisances*); DRACPN = Regional Directorate for the Control of Pollution and Nuisances (*Direction Régionale de l'Assainissement et du Contrôle des pollutions et des Nuisances*); E&S = Environmental and Social.

Table 3.11. ESMF Implementation Schedule

Activity	SACP Implementation Period				
	Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**
Recruiting an environmental and social specialist responsible for screening activities and drafting the ESMP					
Drafting and implementing ESIA/ESMP					
–Building capacity of and training all stakeholders involved in SACP implementation					
Organizing meetings among local, regional, and national stakeholders					
Drafting Environmental and Social Manual of Procedures					
Preparing a code of practice related to phytosanitary products utilization					
M&E of activities					
Midterm and final evaluation of ESMF implementation					

100. The cost of environmental measures proposed in the ESMF is US$453,400 (table 3.12).

Table 3.12. ESMF Implementation Costs

Activity	Estimated Cost (US$)	Estimated Cost (XOF millions)
Recruiting an environmental and social specialist responsible for screening activities and drafting ESMP/IPMP	134,500	78
Drafting and implementing ESIA/ESMP	172,400	100
Capacity building and training all stakeholders involved in SACP implementation	43,100	25
Organizing meetings among local, regional, and national stakeholders	5,200	3
Drafting Environmental and Social Manual of Procedures	17,200	10
Preparing a code of practice related to phytosanitary products utilization	12,100	7
M&E of activities	51,700	30
Midterm and final evaluation of ESMF implementation	17,200	10
TOTAL	453,400	263

Note: US$1 = XOF 580.

101. **The ESMF, which was prepared in full compliance with the national and World Bank environmental and social safeguard policies and guidelines**, has been approved by the DNACPN, the national agency in charge of environmental impact assessments and pollution and nuisance control. The ESMF was disclosed in the country on September 29, 2016, and has been publicly disclosed on September 30, 2016, through World Bank Operations Portal 3.0 (formerly InfoShop).

102. **World Bank Grievances Redress.** Communities and individuals who believe that they are adversely affected by a World-Bank (WB)-supported project may submit complaints to existing Project-level grievance redress mechanisms or to the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are reviewed promptly to address Project-related concerns. Project-affected communities and individuals may submit their complaints to the WB's independent Inspection Panel, which determines whether harm occurred, or could

occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Communication and Citizen Engagement

103. **The Project will include a citizen engagement review mechanism** that will be realized through consultations measuring the level of satisfaction of the population affected by the Project, feedback from beneficiaries in the selection of specific interventions (both TA and works), and empowerment of citizens who report satisfaction with the Project in its area of intervention. Selected indicators are (a) the share of beneficiaries who feel that project investments reflected their needs and (b) beneficiaries satisfaction with the public services offered by API-Mali OSS. This mechanism will also contribute to measure the achievement of PDOs through collection of data and information pertaining to private investment generated (dollar amount), volume of processed mango output marketed by project-supported beneficiaries (tons), and volume of fattened meat output marketed by project-supported beneficiaries (tons). The Project will pay special attention to ensure devolving responsibilities and continued coordination between central and regional/local authorities in place, including public-private dialogue as part of M&E.

Annex 4: Implementation Support Plan

Republic of Mali: Support to Agro-Industrial Competitiveness Project (P151449)

Strategy and Approach for Implementation Support

1. The strategy for implementation support describes how the World Bank Group and other development partners will support the implementation of the risk mitigation measures and provide the technical advice necessary to achieve the PDO. It was developed based on the nature of the Project and its risk profile. Supervision and field visits will be carried out semiannually and focus on the following:

(a) **Strong coordination among the World Bank Group, the IAs, and partners.** The World Bank Group task team will bring a comprehensive set of instruments and expertise to advise on project activities and implementation. It will work closely with the IAs to ensure project success.

(b) **Technical.** Review and supervise the execution of the Project with partner institutions to ensure that activities are implemented in line with the PDO and make adjustments to the design and PP when necessary. Ongoing support for M&E to strengthen the World Bank's and the PCU's ability to both monitor project progress and assess the impact of interventions.

(c) **Fiduciary.** The World Bank's FM and procurement specialists will (i) support the PCU in its familiarization with World Bank guidelines and procedures; (ii) prepare PCU staff to work with the Procurement Guidelines; (iii) ensure the PCU's capacity to manage the flow of funds and accounting procedures, in line with FM guidelines; and (iv) work with the PCU in building its overall FM and procurement capacity to improve and facilitate project management. Supervision of the project's FM arrangements will be conducted semiannually. Implementation support will focus primarily on contract management and in improving proficiency and efficiency in implementation, according to the World Bank guidelines, by reviewing procurement documents; and monitoring procurement progress against the detailed PP. FM supervisions will be conducted over the project's lifetime. The Project will be supervised on a risk-based approach. Supervision will focus on the status of the FM system to verify whether the system continues to operate well throughout the project's lifetime and to ensure that expenditures incurred by the Project remain eligible for IDA funding. The scope of the supervision will include the activities implemented by the PCU, IC and other institutional partners. The scope will comprise, among others, review of transaction; physical inspections of furniture, services, and works delivered; review of audit reports and IFRs; and advice to the task team on all FM issues. Based on the current risk assessment which is Substantial, the team envisages at least two supervision missions per year. The ISR will include an FM rating of the Project. An implementation support mission will be carried out before effectiveness to ensure project readiness. To the extent possible, mixed on-site supervision missions will be undertaken with procurement, M&E, and disbursement colleagues and will cover the activities implemented by the PCU as well as those contracted to implementing partners and UN agencies. The supervision intensity will be adjusted over time considering the project's FM performance and FM risk level.

(d) **M&E.** The World Bank Group will review the updated result framework submitted quarterly by the PCU during the supervision mission or as a desk review. The task team leader (TTL) will discuss the progress and deviations with the PCU to identify any areas in which additional help from the World Bank Group is needed. The TTL will facilitate the use of the M&E data to promote awareness of the project results.

(e) **Client-relations.** The TTL and the team will (i) coordinate World Bank supervision to ensure consistent project implementation, as specified in the legal documents (that is, the Financing Agreement and the PIM) and (ii) interact regularly with the client and the PCU to gauge project progress in achieving the PDO and address implementation bottlenecks as they may arise.

(f) **Safeguards.** World Bank environment and social specialists and consultants will work with the PCU in the implementation of the ESMF, RPF and RAP and will (i) support the PCU and stakeholders with familiarization of the World Bank's instruments; (ii) ensure the PCU's capacity to undertake social and gender analysis and develop mitigation approaches; and (iii) ensure regular and close supervision of progress and implementation of these plans.

2. **Ongoing World Bank-executed trust funded activity.** IC3, a Single Donor Trust Fund financed by USAID (US$2.2 million), will provide complementary implementation support to the public institutions responsible for Mali's commercial agriculture program such as API-Mali.

Implementation Support Plan

3. Based on the outcome of the FM risk assessment, the following implementation support plan is proposed (table 4.1). The objective of the implementation support plan is to ensure that the Project maintains a satisfactory FM system throughout its implementation period.

Table 4.1. Implementation Support Plan

Time	**Focus**	**Skills Needed**	**Number of Trips**	**Resource Estimate** (Staff weeks)
First twelve months	Project management, coordination, and supervision	TTL	0	10
	FM experience, knowledge of World Bank FM norms, training	FM specialist	0	4
	Procurement experience, World Bank's procurement norms knowledge, training	Procurement specialist	0	8
	Environmental and safeguards. World Bank norms knowledge, environmental safeguard	Environmental/safeguards specialist	2	3
	Implementation support and monitoring	Agribusiness	0	6
	Implementation support and monitoring	Private sector development specialist	4	6

	Implementation support and monitoring	Infrastructure and transport specialist	0	6
	Implementation support and monitoring	Investment officer	0	4
12–60 months	Project management, supervision, coordination	TTL	0	8 per year
	FM (FM reviews and supervision, training and monitoring)	FM specialist	0	4 per year
	Procurement management (reviews and supervision, training as needed)	Procurement specialist	0	6 per year
	Environmental safeguards, supervision and monitoring, training as needed	Environmental/safeguards specialist	2 per year	4 per year
	Implementation support and monitoring	Agribusiness	0	4 per year
	Implementation support and monitoring	Private sector development specialist	2 per year	4 per year
	Implementation support and monitoring	Infrastructure and transport specialist	0	4 per year
	Implementation support and monitoring	Investment officer	0	4 per year

Table 4.2. Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
TTL	42	0	Based in Mali
FM specialist	20	0	Based in Mali
Procurement specialist	30	0	Based in Mali
Environmental and social safeguards specialist	19	10	Based at headquarters (environmental) and Dakar (social)
Agribusiness specialist	22	0	Based in Mali
Private sector development specialist	22	12	Based in headquarters and Istanbul
Transport specialist	22	0	Based in Mali
Investment officer	22	0	Based in Mali

Table 4.3. FM Activities Schedule

FM Activity	Frequency
Desk reviews	
IFRs review	Quarterly
Audit report review of the Project	Annually
Review of other relevant information such as interim internal control systems reports.	Continuous as they become available
On-site visits	
Review of overall operation of the FM system	Twice per year (implementation support mission)
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit and other reports	As needed
Transaction reviews (if needed)	As needed
Capacity-building support	

FM training sessions	During implementation and as and when needed

4. **Additional secured parallel financing**. Other secured financing are World Bank projects (FAPP, WAAPP, PRAPS, Sahel Irrigation Initiative Project [SIIP], PROCEJ) and TA (IC3); Danish Cooperation Project (PACEPEP), AfDB Project (PRESAN-Kl); Canadian projects (Project to Support Inclusive Rural Financing in Mali [*Projet d'Appui au Financement Inclusif Rural du Mali*, AFIRMA] and Agriculture and Rural Financing in Mali project [FARM]); Program on Governance and Local Development (Sweden); and USAID programs (Accelerated Economic Growth's Investment Facilitation Platform and Financial Assistance TA, IFDC 2SCALE, West Africa Trade Hub), regional programs (Fight against Fruit Fly), and client programs.

Table 4.4. Summary of Project's Partners

	Strategic Programs	Other Relevant Programs
Component 1	WATIH (USAID) SIIP (World Bank) PACEPEP (Danish) Regional Fight Against Fruit Fly (EU/AFD/WAEMU) Cross Boundaries TA (USAID) IC3 Program (World Bank)	Business Edge (IFC) PROCEJ (World Bank) AFIRMA (Canada) FARM (Canada) FAPP (World Bank) WAAPP (World Bank) GLD (Sweden)
Component 2	Rural Mobility Project (P160505)	
Component 3	IESC TA (USAID) 2SCALE (IFDC) PRAPS (World Bank) PROCEJ (World Bank)	Business Edge (IFC) PACEPEP (Denmark) AFIRMA (Canada) FARM (Canada) WAAPP (World Bank) WATIH (USAID)
Component 4	PRESAN-Kl (AfDB)	

Note: GLD = Program on Governance and Local Development.

5. **Potential for additional financing in IDA18 cycle.** Based on the performance of the proposed project during its implementation, in line with one of CPF's main objectives ('Create economic opportunities'), and upon request from the Government, it is envisaged that additional financing may be requested to extend the scale ('Project beneficiaries'), the scope ('Targeted value chains'), and the reach ('Geographic area') of the project's interventions to (a) improve access to production areas and (b) foster animal feed production, including fishmeal.

Annex 5: Detailed Economic and Financial Analysis

Republic of Mali: Support to Agro-Industrial Competitiveness Project (P151449)

A. Project's Objective and Benefits

1. **The project's main purpose is to increase the processing of agricultural products for two targeted value chains in the selected geographic area.** This geographic area (the production basin of Sikasso-Bamako-Koulikoro) represents approximately 90 percent of mango growers and the largest animal feed producers of Mali. In this geographical area, the Project will provide financial and nonfinancial assistance to mango and animal feed sector value chains' stakeholders (Components 1 and 3). In addition, the Project will provide infrastructure and equipment to expand rural access to markets (Components 2 and 3). The mango value chain will benefit from improvements of market-oriented infrastructure such as the modernization of 300 km of rural roads in Sikasso and Yanfolila Districts and seven collection and conditioning facilities. At the same time, the animal feed sector will benefit from the modernization storage facilities. First, the Project, will target the mango value chain and the animal feed industry. Second, the Project will promote investment opportunities in key agricultural value chains (Subcomponent 1(b)) that are relevant to the project's objectives to enhance Mali's visibility as an agricultural and livestock investment destination. Third, under Component 4, the Project targets capacity building of the public institutions. This proposed action is aimed at enhancing the operational efficiency of the GoM's commercial agriculture program and industrial development plan.

2. **Project-supported investments are expected to generate four substantial financial benefits:** for rural households in areas served by the Project, for Mali's society as a whole, additional taxes for the Treasury, and foreign exchange for the Central Bank. As detailed in table 5.1, through the TA, infrastructure, and equipment provided by the Project, direct socioeconomic impacts will benefit at least 15,000 households participating in the mango value chain and animal feed sector as well as additional actors involved in providing backward and forward services. A portion of these direct benefits will arise from infrastructure development, thereby also contributing to Mali's national socioeconomic welfare. In addition to the increased export of fresh mango (approximately 20 percent of additional production), processed, concentrated, and dried mango will earn the country additional foreign exchange. Road construction is a public good that will benefit the national economy through improved transport efficiency and enhanced commercial activities across sectors.

3. **Benefit streams.** Project activities are expected to generate three main benefit streams: (a) increased production of mango and animal feed due to rejuvenation (proper modern agronomic and industrial practices); (b) returns on investments on product quality enhancement, mainly through processing facilities, as well as investments in access roads linking producing areas to mango exporters and processors; and (c) national benefits from investment opportunities, investment promotion efforts in key agricultural value chains relevant to the Project, and capacity building for institutions responsible for developing agro-industries. These latter benefit streams lend themselves less readily to quantification. For purposes of the economic and financial analysis, the returns are fully estimated for benefit stream (a), in both the 'with' and 'without' subsidy cases. For benefit stream (b), the returns are captured through the

byproducts of processed mango (juice, concentrate, and dried mango). Benefits for category (c) are not computed because of their intangible returns, although they are expected to substantially enhance overall project returns. Overall, as computed, the benefits are therefore conservative.

B. Rationale for Public Intervention

4. **First, provision of public goods (such as rural roads) for which public intervention is required will be a major outcome of this project.** Through Components 1, 2 and 3, the Project will support the modernization of public infrastructure (rural roads and market facilities). The generation and dissemination of public knowledge will help firms in selected areas and value chains to increase their competitiveness, through better interaction with cooperatives and inter-professional organizations. Public intervention in fostering productive innovation in Mali is justified by two well-known features of this type of investment: (a) information asymmetries and coordination failures that prevent efficient private investments and (b) spillover effects arising from the establishment of strong agro-industry research and development links and innovation consortia that cannot be captured in the form of private returns.

5. **Second, Component 4 aims to support the Government in core public sector functions.** Public capacities need to be reinforced to guarantee the success of the *Agropoles* Program. The Project will provide support to the Government on institutional matters in key areas such as agriculture, livestock and agro-industry development, fiduciary, and land allocation issues.

6. **Finally, gradual economic transformation will require public sector support to mitigate the impact of market failures.** The coordination failures among actors, particularly in the context of production fragmentation, requires public support to ensure sufficient coordination among actors in value chains. The Project will help both large private actors and professional and inter-professional organizations to coordinate, both horizontally (among actors in the same economic activity) and vertically (across different stages of a value chain).

C. Value Added of the World Bank Group

7. **First, the World Bank Group has long been involved in projects to provide support to the agriculture and livestock private sector actors in Mali and other countries, including productive alliance models.** The World Bank has extensive experience[68] in mango value chain development and livestock fattening, including support to key commodities contributing to the animal feed industry such as cereals and oilseeds. The ACDP, the decade-long World Bank-financed project which closed in June 2015, testifies to that experience (see the ACDP's Economic and Financial Analysis covering mango production, mango processing, animal fattening, and cereal production supporting animal fattening).

8. **Second, the GoM will benefit from the World Bank Group's technical and fiduciary assistance to help implement the Project.** As a development bank, the World Bank Group is able to articulate funding issues with technical aspects, which will be crucial to the project's success.

[68] NARP, ATPPP, PRAPS, FAPP, WAAPP.

(a) The World Bank Group's experience and technical capacities will benefit the Government in formulating the needs to leverage results of the technical studies that will be carried out for the Program.

(b) In addition to resource mobilization, the World Bank Group will help the Government allocate resources as efficiently as possible, as well as coordinate public and private investment implementation.

9. **Third, the World Bank Group has the convening power that can be critical to achieve the paradigm shifts expected from the Project.** Given the need to address coordination challenges among mango value chain actors and animal feed stakeholders, achieving these shifts could require years of gradual improvements. The success of the whole *Agropoles* Program will require the mobilization of many stakeholders. The World Bank Group's ability to position itself as the Government's advisor and facilitator for bilateral and multilateral donors and the private sector will be decisive. The World Bank Group also has the rare internal capacities to work on multisector engagements such as this one.

D. Economic and Financial Analysis - Methodology and Hypothesis

10. **An attempt has been made, during project preparation, to measure some of the direct incremental benefits expected as a result of project implementation by comparing the 'with' and 'without' project situations**. Direct and indirect project benefits have been estimated for activities pertaining to the programs of mango orchard rejuvenation (through TA support) and cattle fattening, as well as access to inputs (through TA and infrastructure development). For the other project activities (support to API-Mali, capacity building of public sector), no cost-benefit analysis was prepared. In fact, the related benefits, although they are substantial, often are intangible and difficult to quantify.

11. **The selection of the infrastructure to be built and rehabilitated under Component 2 will be based on a cost-effectiveness analysis.** The indicator to be used for the selection of the rural roads to be improved, will be the value of exportable mango accessible divided by the length of the road. The value of mango was chosen over the volume because there are certain types of mango, such as Kent or Keitt that have a higher market value when exported and therefore generate more revenue. The proposed roads will be ranked using the indicator value of mango per kilometer to select the 300 km of roads that has the highest value. The priority 300 km of roads will also be tested against a multicriteria screening, ensuring that roads are connected to principal road networks that lead to processing or exports facilities, thereby creating a network effect. For the selection of the collection centers to be rehabilitated or built, the cost-effectiveness indicator will measure a utilization rate to prioritize existing centers.

12. **Only the benefits generated from increased mango and animal feed outputs have been quantified.** These benefits indirectly capture the impact of infrastructure and access roads through the decreasing production (harvest and post-harvest) losses and higher prices due to enhancing quality. The benefits derived from promoting investment opportunities and building the capacity of institutions in charge of developing agro-industries are not included. These benefits are important, especially for the poorest and most vulnerable because these groups are expected to be better equipped to produce and market efficiently, and, in turn, improve their economic status.

13. **The financial analysis (cash flow and returns to family labor) was prepared for crop enterprises pertaining to mango and animal feed production.** For the economic analysis, benefits from individual enterprises were aggregated using the number of hectares covered each year and incremental production therein from project implementation in the project area. The total of the benefit streams was compared to project costs net of transfers to derive the NPV and compute the project's economic IRR.

14. **The analysis used cost data for the production year 2015–2016.** Trade barriers with major trading partners within the ECOWAS (with the similar currency, XOF) were assumed negligible for targeted products. With regard to production factors, the shadow price of unpaid family labor was assigned a value of 50% of paid employment, being the opportunity cost of labor in Mali. The use of a shadow price was considered appropriate in view of the limited alternative employment opportunities for casual labor in rural areas.

15. **'Without' and 'with' project situations.** In the 'without project' situation, mango trees are low yielding because of farmers' limited knowledge of recommended agronomic practices and lack of access to finance. The same applies to animal feed input growers. Producers do not use chemical fertilizer but use some manure and outdated implements. They get little or no outside advisory support either for cropping or for post-harvest or marketing activities. In the 'with project' situation, producers are given access to an improved production package, including support to provide appropriate agronomic practices to support input application and crop management. Financial and nonfinancial support is co-financed by the Project. This support will positively affect improved yields (mango production rising from 1.5 tons per ha currently to 2.5 tons per ha in 2024). Beneficiaries also will obtain access to newly constructed/rehabilitated roads to transport fresh mangos to processing facilities with improved conditions and, operated as public-private partnerships, which will help getting value added to their products. In addition, as a result of improved operational efficiency, there will be an increase in the quantity and quality of processed mango byproducts in the form of juice, concentrate, and dried mango. As a result of increased quantitative and qualitative supply of animal feed though the implementation of the productive alliances business plans, producers of animal products (animal fatteners and milk and eggs producers) will be able to invest to raise their production levels.

Table 5.1. Incremental Sales per Beneficiary

Segment	Number of Beneficiaries	Additional Annual Sales per Beneficiary with the Project (FY2025) (US$)
Mango farming	5,000	540
Mango processing	5	1,235,500
Cereals/oil seeds producers	9,000	90
Cereals/oil seeds traders	50	3,752
Animal feed - cereals	15	419,255
Animal feed - oil seeds	55	252,000

16. **Additional production in mango value chain.** The Project will generate substantial additional production, a share of which will be used to ameliorate the food security status of rural households and another share will generate monetary revenues for these households to meet their minimal recurrent cash needs and investment requirements. Based on the hypotheses retained in the enterprise budgets, the additional production of mango is derived from two factors: (a)

incremental market quantities as a result of reduction in harvest and post-harvest losses, mainly due to rural road rehabilitation and the improvement/construction of collection/conditioning facilities; incremental marketed quantities increase from 2,400 tons in 2019 to 12,000 tons in 2022 and thereafter and (b) an increase in yields due to the adoption of better farming practices and improved access to finance, resulting in incremental production from 900 tons in 2021 to 3,000 tons in 2024 and thereafter. In total, the incremental production associated with project intervention is 2,400 tons in 2019 and peaks at 15,000 tons in 2024. In value terms, this increase translates to US$432,000 in 2019 peaking at US$2.7 million in 2024. The analysis considered three different categories of products realized as a result of mango processing: (a) mango juice (2,400 tons of production in 2024, corresponding to US$1.7 million); (b) dried mango (40 tons of production in 2024, corresponding to US$368,000); and (c) puree (5,100 tons of production in 2024, corresponding to US$4.1 million). The total incremental revenue for processed mango therefore would peak at about US$6.2 million in 2024 and thereafter.

17. **Incremental value of animal feed activities will also be substantial.** At the input level, returns arise primarily from the increase in yields (from 3.5 tons per ha to 4.5 tons per ha) due to improved access to finance to buy inputs and dissemination of better farming practices, the decrease in post-harvest losses (from 10 percent to 4 percent), and decrease in impurities share in inputs bought by processing units (from 7 percent to 2 percent). Industrial production of animal feed is expected to increase substantially, by 50,000 tons per year, due to the project financial and nonfinancial assistance provided to the whole sector.

18. **The total value of incremental production** is expected to increase from US$3.4 million in 2017 to US$32.5 million in 2024, of which 27 percent will be in the mango value chain and 73 percent in the animal feed sector.

E. Economic and Financial Analysis - Main Results

19. **The project's financial benefits computed over a 20-year period** are expected to yield an NPV of US$18 million at a 10 percent discount rate, representing the opportunity costs of funds for the country, and generate an IRR of 18.0 percent.

20. **In addition, the Project will generate some taxes for the Government Treasury**, although many companies benefit from tax exemptions, and foreign exchange earnings for the Central Bank over its six-year implementation period. For the economic analysis, the shadow price (opportunity cost) of unpaid labor was assigned a value of 50% of paid employment.. As mentioned earlier, the use of a shadow price was considered appropriate in view of the limited alternative employment opportunities for casual labor in rural areas. With this assumption, the economic NPV reaches US$21 million, for an ERR of 19.0 percent.

Table 5.2. Results of the Economic and Financial Analysis

	Mango	Animal Feed	Whole Project
Economic Analysis			
Economic NPV 20 years (US$)	13,783,816	12,532,996	20,664,288
Economic IRR 20 years (in %)	27.4	21.2	19.0
Financial Analysis			
Financial NPV 20 years (US$)	12,673,622	11,070,977	18,092,074
Financial IRR 20 years (in %)	26.2	20.0	18.0

21. **The sensitivity analysis** conducted assumed a modification of the revenues and/or costs of the Project. Even if the Project is quite sensible to the assumptions taken, an important decrease in prices with opposite change in costs is very unlikely.

Table 5.3. Sensitivity on Financial IRR 20 Years

Costs \ Revenues	90%	95%	100%	105%	110%
90%	16.6%	20.5%	24.3%	28.1%	31.9%
95%	13.3%	17.3%	21.1%	24.9%	28.6%
100%	10.0%	14.1%	**18.0%**	21.7%	25.4%
105%	6.6%	10.9%	14.9%	18.6%	22.3%
110%	2.8%	7.6%	11.7%	15.6%	19.3%

Table 5.4. Sensitivity on ERR 20 Years

Costs \ Revenues	90%	95%	100%	105%	110%
90%	17.6%	21.5%	25.3%	29.1%	32.9%
95%	14.4%	18.3%	22.1%	25.8%	29.6%
100%	11.2%	15.2%	**19.0%**	22.7%	26.4%
105%	7.9%	12.1%	16.0%	19.7%	23.3%
110%	4.4%	8.9%	13.0%	16.7%	20.4%

F. Literature Review on Investment Promotion Efforts

22. **Subcomponent 1(b) will help foster domestic and foreign investments** in Mali by contributing to the enhancement and reorganization of public support services offered to the private sector. These investments will be fostered through the reorganization and revamping of API-Mali, which will (a) promote Mali as an investment destination; (b) offer simplified and streamlined business services; and (c) facilitate the operationalization of Malian companies and their integration into national and international markets.

23. **A 2006 study finds that barriers to start a business are negatively and significantly correlated with business density and entry rate.** Fewer procedures are correlated with a greater number of registered firms and higher entry rates.[69] A similar relationship can be found regarding the cost of starting a business. It is estimated that for every 10 percent decrease in entry costs, the density and entry rate increase by approximately 1 percent.[70] Simpler entry encourages the creation of new companies. Easier start-up also is correlated with higher

[69] Klapper, L., L. Laeven, and R. Rajan. 2006. "Entry Regulation as a Barrier to Entrepreneurship." *Journal of Financial Economics*.
[70] Klapper, L., L. Laeven, and R. Rajan. 2006. "Entry Regulation as a Barrier to Entrepreneurship." *Journal of Financial Economics*.

productivity among existing firms. A study that analyzes data in 157 countries, finds that a reduction in entry costs raises output per worker by an estimated 29 percent.[71]

24. **The 2010 World Bank Group Entrepreneurship Snapshots report includes new data on the impact of modernization of business registries on business creation**. The report measures entrepreneurial activity in 115 developing and industrial countries over the six-year period 2004–09. The data show that "dynamic business creation occurs in countries that provide entrepreneurs with good governance, a strong legal and regulatory environment, and reduced red tape."[72] In fact, the report finds a strong positive correlation between a country's business environment, as measured by its Doing Business (2009) ranking, and firm entry density, even after controlling for economic development (GDP per capita).

25. **Research on business entry reform** clearly shows that (a) more firms enter the market when registration procedures and costs are reduced; (b) a large percentage of new firms survive and grow; and (c) new firms increase competition, forcing incumbents to become more efficient or to exit the market, thus boosting overall productivity and investment.[73]

26. **Research shows that investment promotion agencies have an impact on FDI growth in their locations.** For example, Harding and Javorcik[74] used data from 124 countries to examine the effects of investment promotion on inflows of U.S. FDI. The results suggest that investment promotion agencies' actions resulted in higher inflows of FDI, particularly in countries with poor availability of economic information (information asymmetries) and with a significant burden of bureaucratic procedures. By making relevant information available and lessening red tape through servicing and facilitation, investment promotion agencies in developing economies significantly contribute to the increase in investment inflows. The study finds that targeted sectors receive more than twice as much FDI as non-targeted sectors in developing countries. Investment promotion is a resource-intensive endeavor but the return on investment justifies the cost. In the cases studied, "…a dollar spent on investment promotion leads to 189 dollars of FDI inflows; in other words, bringing a dollar of FDI inflows costs half a cent in investment promotion expenditures."

27. **Finally, research has shown that quality FDI exerts a positive effect on a country's private sector**.[75] FDI in a given country tends to affect domestic firms through direct partnerships or through spillover and linkage effects.[76] A foreign investing company may help its domestic partner/supplier/distributor set up production facilities, provide TA to raise the quality

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[71] Barseghyan, L. 2008. "Entry Costs and Cross-Country Differences in Productivity and Output." *Journal of Economic Growth* 13.

[72] World Bank. 2010. *Entrepreneurship Snapshots 2010: Measuring the Impact of the Financial Crisis on New Business Registration*.

[73] Marialisa, M. 2010. "An Open Door for Firms: The Impact of Business Entry Reform." *ViewPoint Note 323*, World Bank.

[74] Harding T., and B. S. Javorcik. 2011. *Roll Out the Red Carpet and They Will Come: Investment Promotion and FDI Inflows*. U.K.: University of Oxford.

[75] Assanie, N., and B. Singleton. 2002. *The Quality of Foreign Direct Investment: Does It Matter for Economic Growth?* Toronto: APF Canada (Asia Pacific Foundation of Canada).

[76] Torlak, E. 2004. "Foreign Direct Investment, Technology Transfer, and Productivity Growth in Transition Countries: Empirical Evidence from Panel Data." Center for Globalization and Europeanization of the Economy.

of the supplied/offered products, assist in accessing raw materials, provide training in production and management,[77] and encourage diversification by finding new customers.[78] Linkage may lead to a clustering of local suppliers and distributors and a 'crowding-in' effect of local investment (encouraging new local investment, through either participating in existing companies or creating new ones). Domestic companies also may benefit from healthy competition with international firms, spurring them to seek improvements in quality, efficiency, and productivity. In a country, increased private sector capacity, foreign or domestic, leads to job creation.

[77] Slaughter, M. J. 2002. "Does Inward Foreign Direct Investment Contribute to Skill Upgrading in Developing Countries?" Center for Economic Policy Analysis, The New School, New York.
[78] Lall, S. 1980. "Vertical Inter-firm Linkages in LDCs: An Empirical Study." *Oxford Bulletin of Economics and Statistics* 42: 203–26.

Annex 6: Map of the Area

Republic of Mali: Support to Agro-Industrial Competitiveness Project (P151449)