Document of

The World Bank

FOR OFFICIAL USE ONLY

Report No: PAD1114

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR147.2 MILLION

(US$200 MILLION EQUIVALENT)

TO THE

FEDERAL REPUBLIC OF NIGERIA

FOR AN

AGRO-PROCESSING, PRODUCTIVITY ENHANCEMENT AND LIVELIHOOD IMPROVEMENT SUPPORT PROJECT

March 2, 2017

Global Practice - Agriculture (GFA01)
Country Department AFCW2
Africa Region

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

CURRENCY EQUIVALENTS
(Exchange Rate Effective January 31, 2017)

Currency Unit	=	Nigerian Naira (NGN)
NGN 305.5	=	US$1
1 US$	=	SDR 0.73592723

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
APP	Agriculture Promotion Policy (the Green Alternative)
AWPB	Annual Work Plan and Budget
CADP	Commercial Agricultural Development Project
CAS	Country Assistance Strategy
DFID	Department of International Development
DRC	Domestic Resource Cost
ESIA	Environmental and Social Assessment
ESMF	Environmental and Social Management Framework
FADAMA III	Third National Fadama Development Project
FGN	Federal Government of Nigeria
FM	Financial Management
FME	Federal Ministry of Environment
FMARD	Federal Ministry of Agriculture and Rural Development
FPFMD	Federal Project Financial Management Division
FPM	Financial Procedures Manual
FRR	Financial Rate of Return
GDP	Gross Domestic Product
GEM	Growth and Employment Project (World Bank-supported)
GEMS	Growth and Employment in the States (DFID-supported)
GRM	Grievance Redress Mechanism
IBRD	International Bank for Reconstruction and Development
ICT	Information and Communication Technology
IDA	International Development Association
IFC	International Finance Corporation
IFRs	Interim Financial Reports
IPMP	Integrated Pest Management Plan
ISP	Implementation Support Plan
MDA	Ministries, Departments and Agencies
MIS	Management Information System
M&E	Monitoring & Evaluation
NABG	Nigeria Agri-Business Group
NCB	National Competitive Bidding
NCO	National Coordination Office
NGN	Nigerian Naira
NGO	Non-Government Organization
NS	National Shopping
NSBD	National Standard Bidding Document

NSC	National Steering Committee
O&M	Operations and Maintenance
PAD	Project Appraisal Document
PCRP	Physical Cultural Resources Policy
PDO	Project Development Objective
PIM	Project Implementation Manual
PPP	Public Private Partnership
PRM	Portfolio and Risk Management
PSC	Project Steering Committee
QCBS	Quality and Cost Based Selection
RAP	Resettlement Action Plan
RFP	Request for Proposal
RPF	Resettlement Policy Framework
SAWPB	State Annual Work Plan and Budget
SBDs	Standard Bidding Documents
SCO	State Coordination Office
SCPZ	Staple Crop Processing Zone
MEs	Small Medium Enterprises
SSC	State Steering Committee
STC	State Technical Committee
TA	Technical Assistance
TRIMING	Transforming Irrigation Management in Nigeria Project
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
VCIP	Value Chain Investment Plan
WBG	The World Bank Group
WAAPP	West Africa Agriculture Productivity Project

Regional Vice President:	Makhtar Diop
Country Director:	Rachid Benmessaoud
Senior Global Practice Director:	Juergen Voegele
Practice Manager/Managers:	Simeon Ehui
Task Team Leader:	El Hadj Adama Toure
Co-TTLs:	Adesimi Freeman, Sheu Salau

NIGERIA-AGRO PROCESSING PRODUCTIVITY ENHANCEMENT AND LIVELIHOOD IMPROVEMENT SUPPORT PROJECT (APPEALS)

TABLE OF CONTENTS **Page**

PAD DATA SHEET

Nigeria

Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project (P148616)

PROJECT APPRAISAL DOCUMENT

Report No.: PAD1114

Basic Information			
Project ID P148616	EA Category B - Partial Assessment	Team Leader(s) El Hadj Adama Toure, Adesimi Freeman, Sheu Salau	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ]		
	Financial Intermediaries [ ]		
	Series of Projects [ ]		
Project Implementation Start Date 23-Mar-2017	Project Implementation End Date 31-Mar-2023		
Expected Effectiveness Date 31-Oct-2017	Expected Closing Date 30-Sep-2023		
Joint IFC No			
Practice Manager/Manager	Senior Global Practice Director	Country Director	Regional Vice President
Simeon Kacou Ehui	Juergen Voegele	Rachid Benmessaoud	Makhtar Diop

Borrower: Federal Republic of Nigeria			
Responsible Agency: Federal Ministry of Agriculture and Rural Development			
Contact:	Dr. Amin Babandi	Title:	Director of Federal Department of Agriculture
Telephone No.:	2348037860764	Email:	ababandi@gmail.com

Project Financing Data(in USD Million)					
[ ]	Loan	[ ]	IDA Grant	[ ]	Guarantee
[X]	Credit	[ ]	Grant	[ ]	Other

Total Project Cost:	200.00	Total Bank Financing:	200.00
Financing Gap:	0.00		

Financing Source	**Amount**

BORROWER/RECIPIENT	0
International Development Association (IDA)	200.00
Total	200.00

Expected Disbursements (in USD Million)

Fiscal Year	2018	2019	2020	2021	2022	2023	2024	
Annual	6.00	16.00	40.00	50.00	50.00	30.00	8.00	
Cumulative	6.00	22.00	62.00	112.00	162.00	192.00	200.00	

Institutional Data

Practice Area (Lead)

Agriculture

Contributing Practice Areas

Trade & Competitiveness, Transport & ICT, Social, Urban, Rural and Resilience Global Practice

Proposed Development Objective(s)

The objective of the Project is to enhance agricultural productivity of small and medium scale farmers and improve value addition along priority value chains in the Participating States.

Components

Component Name	Cost (USD Millions)
Production and Productivity Enhancement	40.00
Primary processing, Value Addition, Post-Harvest Management, and Women and Youth Empowerment	92.00
Infrastructure Support to Agribusiness Clusters	40.00
Technical Assistance, Knowledge Management and Communication	10.50
Project Management and Coordination	17.50

Systematic Operations Risk- Rating Tool (SORT)

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

8. Stakeholders	Substantial
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
Project Implementation Manual		31-January 2018	

Description of Covenant

No later than three (3) months after the Effective Date, the Recipient shall, and shall cause each Participating State, to adopt the Project Implementation Manual (PIM) in form and substance satisfactory to the Association, and, thereafter carry out the Project and cause each Participating State to carry out its respective activities under the Project in accordance with the provisions of the PIM.

Name	Recurrent	Due Date	Frequency
Establishment of the SCO in Kogi State		31-January 2018	

Description of Covenant

No later than three (3) months after the Effective Date, the Recipient shall ensure the establishment of the SCO in Kogi State, with staff with terms of reference, experience and qualifications acceptable to the Association recruited in accordance with the provisions of Section III, Schedule 2 of the Financing Agreement.

Conditions

Source Of Fund	Name	Type
IDA	Condition of Effectiveness	Effectiveness

Description of Condition

At least one Subsidiary Agreement has been executed on behalf of the Recipient and one Participating State and has been duly authorized or ratified by the Recipient and the Participating State in accordance with its terms.

Source Of Fund	Name	Type
IDA	Legal Opinion for Subsidiary Agreements	Disbursement

Description of Condition

No withdrawal shall be made under Categories (1), (2), and (3) of the Financing Agreement with respect to any Participating State unless the Association has received an opinion pursuant to Section 8.02 (b) of the General Conditions that the Subsidiary Agreement has been duly authorized or ratified by the Recipient and the concerned Participating State and is legally binding upon the Recipient and the Participating State in accordance with its terms.

Source Of Fund	Name	Type
IDA	Establishment of State Coordination Offices	Disbursement

Description of Condition

No withdrawal shall be made under Categories (1), (2), and (3) of the Financing Agreement with respect to any Participating State unless the Recipient has furnished to the Association evidence satisfactory to the Association that the concerned Participating State has duly established its SCO in form and substance satisfactory to the Association.

Source Of Fund	Name	Type
IDA	Disbursement of the Matching Grants and the Startup Grants (Categories 2 and 3)	Disbursement

Description of Condition

No withdrawal shall be made under Categories (2) and (3) of the Financing Agreement unless a list of the Beneficiaries has been prepared in accordance with the Project Implementation Manual, and is acceptable to the Association.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
El Hadj Adama Toure	Team Leader (ADM Responsible)	Lead Agriculture Economist	Agricultural Value Chains	GFA01
Adesimi Freeman	Co-Team Leader	Lead Private Sector Specialist	Agribusiness and SMEs	GTC07
Sheu Salau	Co-Team Leader	Senior Agriculture Economist	Economic Analysis and M&E	GFA01

Zoe Kolovou	Counsel	Lead Counsel	Legal	LEGAM
Faly Diallo	Finance Officer	Finance Officer	Disbursement	WFALA
Oyewole Oluyemi Afuye	Procurement Specialist (ADM Responsible)	Procurement Specialist	Procurement Specialist	GGO01
Akinrinmola Oyenuga Akinyele	Financial Management Specialist	Sr. Financial Management Specialist	Financial Management	GGO25
Amos Abu	Safeguards Specialist	Senior Environmental Specialist	Environmental Safeguards	GEN07
Edda Mwakaselo Ivan Smith	Safeguards Specialist	Senior Social Development Specialist	Social Safeguards and Gender	GSU01
Adetunji A. Oredipe	Team Member	Senior Agriculture Economist	Agricultural productivity	GFA01
Andrew Taylor Gartside	Team Member	Senior Private Sector Specialist	Private Sector and SMEs	GTC07
Juvenal Nzambimana	Team Member	Senior Operations Officer	Operational support	GFA01
Michael Gboyega Ilesanmi	Team member	Social Development Specialist	Social Development and Livelihood	GSU01
Samuel Taffesse	Team Member	Senior Economist	Implementation Support	GFA01
Ademola Braimoh	Team Member	Sr. Natural Resources Mgmt. Specialist	Green House Gases Accounting	GFA13
Abiodun Elufioye	Team Member	Program Assistant	Team Assistant	AFCW2
Tolulope Oluseun Idowu	Team Member	Temporary		GFADR
Volana Andriamasinoro	Team Member	Program Assistant	Program Assistant	GFA01
Gautam Gustav Bastian	Team Member	Economist	Impact Evaluation	AFRGI
Shalini Subiah	Team Member	GIL/Consultant	Impact Evaluation	AFRGI
Ayodele Emmanuel Fashogbon	Team Member	GIL/Consultant	Impact Evaluation	GSPDR
Diego Arias Carballo	Peer Reviewer	Lead Agriculture Economist	Value chains Market linkages	GFA07
Christopher Ian Brett	Peer Reviewer	Lead Agribusiness Specialist	Agribusiness and Market linkages	GFAGE
Kofi Nouve	Peer Reviewer	Senior Agriculture Economist	Economic Analysis	GFA02
Extended Team				
Name	**Title**	**Office Phone**	**Location**	

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Nigeria	Kano	Kano State		**X**	
Nigeria	Kaduna	Kaduna State		**X**	
Nigeria	Cross River	Cross River State		**X**	
Nigeria	Enugu	Enugu State		**X**	
Nigeria	Lagos	Lagos State		X	
Nigeria	Kogi	Kogi State	**X**		

Consultants (Will be disclosed in the Monthly Operational Summary)

Consultants Required ? Consultants will be required

I. STRATEGIC CONTEXT

1. Country Context

1. Nigeria is Africa's most populous country and its second largest economy. With a population of nearly 180 million people, Nigeria accounts for almost half of West Africa's population. Oil accounts for more than two-thirds of the country's fiscal revenues and about 90 percent of foreign exchange receipts. For a decade, and especially since 2003, Nigeria achieved strong growth, averaging over 6 percent a year. The growth was mainly driven by the non-oil sectors (agriculture and services), private consumption, and factor accumulation (capital mostly), with only minor contribution from productivity gains. Structural changes in the economy were particularly evident in services (telecommunications, transportation, hotel and restaurants), construction and real estate, and the financial sector.

2. Since the onset of the oil price shock in the mid-2014, growth declined from 6.3 percent in 2014 to 2.8 percent in 2015. In 2016, the economy has registered negative growth in the first three quarters, with GDP contracting by -2.24 percent (year-on-year) in the third quarter. While the deterioration in the situation was triggered by the oil price shock, it has been compounded by additional factors including a sharp drop in oil production levels due to militant activities in the Niger Delta region. The recession has also brought the long-standing structural and institutional weaknesses of Nigeria's economy to the forefront. Just as is the case with the federal government budget, the states and local government budgets are also dependent on oil. However, the structural weakness remained unaddressed given the buoyant liquidity during boom years. In 2013, oil revenue represented 73 percent of the total revenue of the states. The collapse of oil prices and the liquidity crunch revived tensions between federal government and subnational governments regarding burden of the adjustment that eventually ended in a state bailout in July 2015.

3. Poverty reduction was not commensurate with the rapid growth in gross domestic product (GDP) experienced in recent times. At national level, poverty rates, using consumption per capita, declined from 46 percent in 2003 to 35.6 in 2011. They remained unchanged (at 36 percent) through 2013. Low labor absorption is one of the factors that explain this particular trend. The Nigerian economy during the last decade proved that it was unable to create enough jobs to absorb the growing labor force. The rapid widening in inequality slowed down poverty reduction appreciably. Inequality in household consumption widened in 2004–13 by about 15 percent, based on the Gini coefficient, from 0.36 to 0.41.

4. Nigeria has great potential but faces significant constraints. The performances of northern and southern Nigeria differ. The coastal parts of the South West and South states can be considered middle-income economies that have achieved important results in poverty reduction, but are facing the typical constraints of this group of economies, such as chaotic urbanization, unmet demand for high-quality services, and an unfavorable business environment. Meanwhile, the upper northern states have been experiencing deep poverty, sluggish growth, and limited access to basic services and infrastructure.

5. Nigeria's 2015 presidential elections brought the opposition candidate and his party, the All Progressives Congress (APC), to power, on a platform to improve security, address corruption, and promote more inclusive and job-enhancing growth – in reaction to the country's security challenges, endemic governance issues, and weakened economy. The government seeks

to implement stabilization and recovery measures while addressing the medium- and long-term development agenda, including efforts to improve security and combat corruption. The stabilization and recovery measures focus on (a) restoring macro-economic resilience and growth; and (b) improving security in the North East and Niger Delta. The medium- and long-term agenda is to promote job creation and build an economy, led by a strong and responsible private sector; provide physical and economic infrastructure; enact social policies that would increase opportunities for the poor and vulnerable; and address climate change and other cross cutting issues affecting the sector. Agriculture, mining, infrastructure are key vehicles for increasing non-oil revenues, diversifying the economy, and generating jobs.

2. Sectoral and Institutional Context

6. Recognizing that growth in agriculture would have the greatest impact on poverty reduction, and as a part of promoting growth in the non-oil sector, the Government of Nigeria laid out the Agriculture Promotion Policy-The Green Alternative (APP: 2016-2020)[1], a strategy to decisively pull agriculture out of its subsistence, low input, low output, and low equilibrium trap. In July 2016, the Federal Government of Nigeria (FGN) approved the APP, building on the Agriculture Transformation Agenda (ATA), developed under the previous administration. The key themes of this policy are: (i) supporting productivity enhancements; (ii) crowding in private sector investment; and (iii) institutional realignment of Federal Ministry of Agriculture and Rural Development (FMARD) with a focus on improving the ease of doing business in Nigeria's agriculture space.

7. In the context of weak oil prices, agriculture will continue to be a major contributor to Nigeria's economy. Agriculture, particularly crop production, which accounts for 92 percent of the agriculture sector, provides livelihoods for about 90 percent of the rural population. The 2016 third quarter GDP growth report shows that agriculture now represents 28.7 percent of the economy, increasing from 22.6 percent in the second quarter of 2016. It means that the agriculture sector has continued to post solid growth of 4.5 percent per year, in contrast to the continued shrinkage in the industrial sector and services sector.

8. Despite the increased contribution of agriculture sector to GDP, productivity remains low. Productivity has not shown any significant enhancement due to under-investment in new technologies, slow adoption of existing improved technologies by producers, unsatisfactory investment climate, and lagging infrastructure. There are large and exploitable yield gaps for most crops. According to the World Development Indicators (WDI 2014), cereal yield in Nigeria is lower than half the world's average. The total import of agriculture-related items was estimated at US$4.25 billion[2] (or about 6.6 percent of the total sector GDP) in 2010, providing clear evidence of the existence of unmet demand by domestic production in food items. Therefore, promoting higher agricultural productivity, especially in smallholders farming, can also close the gap while helping set off a strong rural dynamics. In that regard, gender dimensions in the agriculture sector need also to be addressed. As in much of sub-Saharan Africa, women in Nigeria, compared with men, have relatively limited access to productive

[1] FMARD- The Green Alternative- The Agriculture Promotion Policy 2016-2020, Policy and Strategic Document, Building on the Successes of the ATA and closing Key Gaps, June 21, 2016

[2] NBS, 2010 Review of the Nigerian Economy p. 42.

agricultural land, inputs and services. Reducing the gender gap in agricultural productivity thus stands to substantially reduce poverty in Nigeria as a whole[3].

9. A survey-based analysis[4] of the determinants of rural poverty in Nigeria concludes that a 10 percent increase in agricultural productivity will decrease the likelihood of being poor by 2.5 to 3 percent. Indeed, it would be difficult to achieve rural poverty reduction unless there is significant improvement in agricultural productivity and efficiency in related public spending. Use of fertilizer, for example, is positively correlated with agricultural productivity improvement for both poor and non-poor farmers. The same analysis also indicates that income from wages and other nonfarm activities have a larger effect on poverty reduction than agriculture. However, this does not diminish the importance of agriculture for poverty reduction in rural Nigeria, where agriculture is still the main activity for many households. A recent household survey points to an increase in the private sector non-farm activity across Nigeria, albeit limited[5].

10. Agriculture and small non-farm household enterprises in both rural and urban areas will account for the bulk of new jobs in the foreseeable future. The wage sector, where earnings and benefits are highest, remains modest at 17 percent of workers in 2011. Nearly 10 percent of these jobs are in the public sector. Even under favorable assumptions regarding wage sector growth rates in the next ten years, more people will still be working in agriculture and in the non-agricultural rural space. While it will be important to foster a formal, urban, and modern sector that can create jobs with higher earnings, increasing productivity in agriculture and agro-processing enterprises by enhancing youth skills and empowering them to engage in those activities seems to be the most effective way to tackle unemployment in the short to medium term.

3. High-Level Objectives the Project Contributes to

11. The proposed project is in line with the APP, which intends to build on the legacy of the Agricultural Transformation Agenda (ATA), and plans to support policy thrusts on food security, local production, job creation and economic diversification. The policy thrust has three key thematic areas: Productivity Enhancement, Crowding in Private Investment, and FMARD Institutional Realignment. The proposed project will support the government's new policy thrust and priorities for the agriculture sector across all these three thematic areas of the APP, but will focus more on Theme 1- productivity enhancement.

12. The proposed project is aligned with Country Partnership Strategy (CPS) FY14-17 and its focus on boosting agricultural productivity and improving farmers' linkages with agro-processors.

13. This project will directly contribute to four of the Sustainable Development Goals (SDGs):

- Goal 2 – End hunger, achieve food security and improved nutrition, and promote sustainable agriculture: specifically the project will support activities that have been identified to lead to this goal, namely, sustainable and resilient agricultural

[3] World Bank, 2015.Levelling the Field: Improving Opportunities for Women Farmers in Africa.

[4] Nigeria-Agriculture and Rural Poverty, Policy Note. The World Bank, Report No.: 78364 – NG, February 2014.

[5] World Bank 2015.Drivers of Jobs and Productivity in Nigeria.

practices, equal access to technology and markets, and technology to boost agricultural productivity.

- Goal 8 – Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all; the project supports labor productivity improvement in agriculture and non-farm activities by directly supporting youth and women employment in farming and agricultural value chains; providing support in improving access to finance; and assisting in improving transport and storage.
- Goal 9 – Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation by rehabilitating and modernizing rural roads, common service centers, agro-processing units and farm structures with enhanced resilience features of flood protection; and
- Goal 13 – Take urgent action to combat climate change and its impact: by enhancing productivity that implies the efficient use of inputs, including water and land; enhancing awareness and promoting climate smart agriculture, and activities that enhance carbon sequestration in the soil.

II. PROJECT DEVELOPMENT OBJECTIVES

1. Project Development Objective (PDO)

14. The objective of the Project is to enhance agricultural productivity of small and medium scale farmers and improve value addition along priority value chains in the Participating States.

15. The PDO will be achieved through supporting farmers' productivity and their linkage to markets, facilitating consolidation of agricultural products and cottage processing, facilitating farmers and small and medium businesses' clustering and connection to infrastructure network and business services, providing technical assistance (TA) and institutional support both to beneficiaries, federal and state governments in value chain development. Increased productivity, production, and improving processing and marketing of the targeted value chains are expected to foster job creation along value chains.

16. The project support will focus on priority value chains as identified in Agricultural Promotion Policy-The Green Alternative (APP-2016-2020), through facilitating business alliances, promotion of greater farmers-agri-business linkages, and support to critical infrastructure in value chain development. Priority value chains selected from the APP long list for the purpose of project support are: (i) staples with quick returns and benefits; (ii) products with potential for immediate improvement of food security; (iii) value chains to enhance the national production of crops (rice, maize, cassava and wheat); (iv) products with a potential for export and foreign currency earnings (cocoa and cashew); and (v) short-cycle, quick income generating high value products for livelihood improvement, particularly suitable for women and youth businesses such as horticulture, poultry and aquaculture. While many, if not all of these value chains, may have dual or triple purposes, each participating state will focus on three promising value chains. This will allow for greater impact and a focused approach, with priority given to structuring value chains with potential for geographic and vertical integration across the states (for example, maize can be integrated into the animal feed industry to support the

development of poultry and aquaculture value chain and geographically along the North West-South West corridor).

17. Drawing lessons from the World Bank's engagement at the state level, a three-step approach was adopted for identifying participating states in different stages: (i) starting project implementation with a limited number of states, based on availability of operational knowledge on value chains in the potential participating states, and readiness to fast track project implementation. The five states that satisfy this particular criterion are Lagos, Enugu, Kano, Cross River, and Kaduna, being supported under an on-going IDA-financed Commercial Agriculture Development Project (CADP) operation, plus Kogi State, which has benefited from the early design in the preparation of this project; (ii) depending on overall project performance and funding availability, the project will expand to cover up to three additional states. Due consideration will be given to collaboration between states, for complementarity along the value chain clusters and corridors, . Those additional three states will be selected in the early to mid-implementation stage of the project based on the implementation readiness criteria discussed in Annex 2[6]; and (iii) using the project to build a framework for scaling up support to a wider range of states through future operations. The approach allows smooth project start-up with flexible allocation of the credit proceeds, based on state performance, and will contribute to strengthening the value chains segments across the board.

2. Project Beneficiaries

18. The number of project's direct beneficiaries is estimated at 60,000 individuals (i.e. 10,000 beneficiaries per state), and 300,000 farm household members as indirect beneficiaries. It is anticipated that 35 percent of direct beneficiaries (or 21,000 individuals) will be women. By design, the project has a dedicated sub-component to benefit women and youth that will allow them to develop agri-businesses that are expected to create jobs and improve their livelihoods. The project monitoring and evaluation (M&E) and information system will include a gender tracker to ensure adequate documentation on different categories of project beneficiaries.

3. PDO-level Results Indicators

- Increase in productivity of agricultural produce of priority value chains by project-supported farmers
- Increase in processed output of priority value chains by project beneficiaries
- Number of beneficiaries supported by the project (separate percentages of beneficiary, women and youth)

---

[6] Annex 1 provides details on project design principles including criteria for selecting states and value chains.

III. PROJECT DESCRIPTION

19. Although Nigeria has a distinct comparative advantage in the agriculture sector yet the production system has not developed in terms of significant value addition or processing, and has remained a producer of mainly staple crops. The project aims at supporting transition of small subsistence farmers' production system (farming 1-5 ha) to a market-oriented agricultural undertaking, and supporting middle size farmers (5-10 ha) to address constraints in enhancing their productivity as well as effective participation in value chains.

20. The agriculture sector of Nigeria is characterized by low productivity; little and untimely access to inputs; lack of seed funds for establishing agro-processing plants by producer cooperatives; lack of access to supportive infrastructure; challenging business environment; limited access to markets; low level of technology adoption; weak quality control mechanism; and low capacity at all levels. Following the government policy thrust of promoting value chain approach to achieve the APP goal, project intervention will consist of tackling key constraints, which hinder the development of the value chains, and prevent greater inclusion of small and medium scale farmers in agribusiness supply chains. The project will scale up the Business Alliance model, being successfully implemented under the Bank-supported Commercial Agriculture Development Project (CADP). The Business Alliance model was inspired by the "Productive Alliance" model, implemented across Latin America with the World Bank support. The scale-up will have an improved design feature to account for lessons learned and country specific contexts.

21. The project will address some of the challenges noted in the para above by: (i) improving access to seed capital through grants; (ii) support to productivity enhancement through introduction of new technologies and agricultural inputs; (iii) improving access to infrastructure by supporting investment; (iv) building the capacity of producer cooperatives through training and TA, especially for targeted women and youth groups; (v) facilitating market linkage throughout the growers schemes; and (vi) facilitating on-farm value addition by targeting limited number of value chains, and linking farmers to the supply chain. The type of value chains to be supported will be aligned towards the achievement of these priority goals in the immediate, short and medium-term.

22. The approach will address market imperfections that inhibit small producers' socio-economic progress, *inter alia*: (i) low productivity and limited scale of production; (ii) weak market negotiation ability of small producers vis-à-vis buyers and input providers to obtain better prices and more stable market relationships; (iii) inadequate knowledge of production practices, technologies, and market requirements, as well as entrepreneurial management to become more competitive and resilient to economic and climatic shocks; (iv) limited access to financial resources for productive investments to increase efficiency and comply with requirements demanded by the markets; (v) inability of buyers and sellers to successfully integrate into local, national, and/or international value chains market; and (vi) women farmers' lack of access to credit and technology. The Business Alliance approach involves three core agents: (i) a group of smallholder and medium-scale farmers/agricultural producers; (ii) one or more buyers; and (iii) the private/public sector. These three entities are connected through a business proposition, or "business plan", which describes the capital and service needs of the producers, and proposes improvements that would allow them to upgrade their production capacities and skills to strengthen their linkage with the markets, i.e. the buyer(s).

1. Project Components

Component 1: Production and Productivity Enhancement (US$40m)

23. The aim of this component is to increase total supply of the targeted priority value chains with a purpose to ensure consistent, reliable and timely stream of produce to the markets. Improving farmers' productivity and quality of their produce will create the basis for improving farmers' participation in agri-business supply chains, and responding to the market requirements. The project will provide support to small- and medium-scale farmers and their cooperative societies through business alliances that will link farmers to markets through off-takers and local processors. This will be achieved through structuring farmers/out-growers contracts that will benefit all participants, and facilitate adoption and use of improved climate-smart and nutrition-sensitive agricultural practices and technologies by participating farmers. A matching grant mechanism (with in-kind contribution from beneficiaries) will be utilized as an incentive to stimulate farmers' participation and remove the financing constraint, which has historically limited small farmers' access to improved inputs and technologies. The activities to be financed under this component are clustered around the following three sub-components:

- *Sub-component 1.1. Business alliances and out-grower scheme*: consisting of the provision of TA in developing value chain investment plans and stakeholder mapping, and supporting the structuring of about 210 business alliances and out-grower schemes;
- *Sub-component 1.2. Technology demonstration*: acquisition and dissemination of about 100 improved climate-smart and nutrition-sensitive technologies (inputs, equipment, machinery, etc.) for agricultural production systems;
- *Sub-component 1*.3. *Support to technology adoption:* through a matching grant mechanism to farmers and farmers' groups, to facilitate access and adoption of proven technologies at scale.

24. Expected results are: an increase in the number of supported farmers (35,000), adopting improved technologies[7], and in the total number of technologies demonstrated and disseminated under the project. Sub-components 1.1 and 1.2 will be implemented by the National Coordination Office in collaboration with participating states, with TA from a qualified consulting firm, and in partnership with relevant institutions (universities, research centers, etc.). Participating states will implement the grant mechanism under subcomponent 1.3 with NCO and the TA support and in accordance with the project procedures. Recipients of the grants will be small farmer groups/cooperative societies, small and medium commercial farmers, and youth and women. Eligibility criteria will be spelled out in detail in the Project Implementation Manual. A summary of the eligibility criteria is provided in Table 8 under Annex 2.

Component 2: Primary Processing, Value Addition, Post-Harvest Management and Women and Youth Empowerment (US$92m)

[7]One of the World Bank Corporate Result Indicators

25. The component will support the reduction of post-harvest losses, facilitate the consolidation of produce and primary processing by farmers' cooperative societies and small and medium-scale enterprises in project intervention areas, focusing on gender-sensitive activities along the core segment of the value chains (production, processing, marketing) and ancillary businesses (agro-dealership, haulage, packaging, business management, etc.). The component will finance the acquisition of common goods for cooperatives, producer organizations, women and youth through construction/rehabilitation of aggregation facilities, procurement and installation of equipment for cottage processing, storage, and quality assurance facilities; and provision of business development services (TA in business management, marketing, access to market information and financial services).

26. Activities to be financed under this component are organized around three sub-components:

- *Sub-component 2.1. Women and youth empowerment:* consisting of provision of TA in business planning, grants to finance sub-projects, and mentorship for start-up or consolidation of existing women and youth led businesses, as individuals or group beneficiaries, and following agreed eligibility criteria and selection procedures as described in the Project Implementation Manual;
- *Sub-component 2.2. Commodity aggregation and cottage processing:* through rehabilitation or construction of about 90 units of simple design aggregation centers, and provision of income generating assets such as equipment and machinery for post-harvest handling, storage and quality management, clearing, sorting, processing and packaging for organized group beneficiaries in target production clusters;
- *Sub-component 2.3. Market development and linkage to business services:* including support to market information and agricultural commodity exchange platforms and facilitating value chains coordination around the aggregation centers.

27. It is expected that about 10,000 women and youths will directly benefit from the grant mechanism under sub-component 2.1, while another 10,000 cooperative and group members will benefit from the assets to be provided for the 90 aggregation centers under sub-component 2.2. Sub-components 2.1 and 2.3 will be implemented by SCOs, while NCO will implement sub-component 2.2. A summary of indicative activities and business size for the aggregation centers is provided in Table 9, Annex 2.

Component 3: Infrastructure Support to Agri-business Clusters (US$$40.0m)

28. This component aims at improving physical environment (last mile connection to roads and utilities) for agro-industrial and cottage processing units, located in agri-business clusters with significant potential for agro-processing and greater inclusion of small to medium size farmers into the agri-business supply chains through the business alliances. It will tackle major constraints to efficient supply of raw material and competitive agro-processing. The component will provide such support in collaboration with other projects (such as the World Bank–assisted Rural Access and Mobility Program) and by aligning with the federal and state government's programs on infrastructure. The project will not finance construction or rehabilitation of dams, or extracting water from existing dams. However, if there is need for construction of small dams, dikes, and weirs, a qualified engineer will be hired to supervise the construction to ensure compliance with the World Bank Operational Policies 4.37 on safety of dams.

29. Activities to be financed under this component are clustered around the following sub-components :

- *Sub-component 3.1. Infrastructure support to production:* consisting of design and construction or rehabilitation of access roads, provision of jetties and water for production;
- *Sub-component 3.2. Infrastructure support to processing and value addition:* consisting of provision of last-mile connection to roads networks and utilities (water, energy, transmission lines, gas pipelines, etc.).

30. It is expected that 80 km of link roads will be constructed or rehabilitated under this component, which will be implemented by the participating states, with joint NCO/SCOs strategic planning, following the value chains investment plans to be prepared under Component 1.

Component 4: Technical Assistance, Knowledge Management and Communication (US$10.5m)

31. The aim of this component is to build capacity of the project staff and partners in the relevant areas of value chains development, harness the knowledge acquired and generated under the project, facilitate exchanges of experience and build capacity of stakeholders participating in the implementation of the project, and support the FMARD for conducting strategic and technical studies for scaling up agricultural productivity and processing programs.

32. Activities to be financed under this component are:

- *Sub-component 4.1. Capacity Building and support to collaborating institutions*: activities to be financed include preparation and implementation of project capacity building and training plan, including peer learning, in-country and cross border exchanges, and support to collaborating institutions at federal and state levels;
- *Sub-component 4.2. Technical assistance and knowledge management:* including establishment of a central repository for knowledge capitalization, studies and preparatory works for subsequent projects, contributing to advancing the implementation of the government strategies; and support to FMARD in improving quality control of inputs and information to farmers on input markets and agro-dealers;
- *Sub-component 4.3 Communication and outreach*: preparation and implementation of project communication strategy and plans, including the development of communication and reporting tools and facilitating public access to project information.

Component 5: Project Management and Coordination – (US$17.5m)

33. The aim of this component is to ensure effective management and coordination of the project for proper accomplishment of project related goals and the achievement of the PDO. This component will support the work of technical, financial, administrative, and M&E activities during the entire project period.

34. Activities to be financed under this component are organized around the following sub-components

- *Sub-component 5.1. Project management and coordination:* includes additional works and equipment for upgrading NCO and SCO offices, consultant services, salaries for NCO and SCOs staff that are competitively selected; operating costs, equipment and tools necessary to carry project's day to day activities;
- *Sub-component 5.2. Monitoring and evaluation*: equipment, operating cost, workshops and consulting services for conducting M&E activities, including periodic surveys to learn about project performance, beneficiary assessments and impact evaluations, reporting on project performance and for implementing the gender tracker;
- *Sub-component 5.3. Environmental and social safeguards and grievance redress mechanism:* consisting of consultancy services, workshops and operating costs related to the preparation, implementation and monitoring of environmental and social safeguards instruments, as well as establishment of an effective grievance redress mechanism (GRM).

35. Expected outputs include number of project staff and individuals from federal and state partners (public and private) with improved skills contributing to project activities; number of people reached through project communication.

2. Project Cost and Financing

36. The project is an Investment Project Financing (IPF) for a total amount of US$200 million equivalent. The full credit is extended to the Federal Government of Nigeria, which will use part of the proceed as grants to participating states, to ensure full alignment of the state's programs on selected value chains with the Federal Government's sector strategy -- Agricultural Promotion Policy.

37. IDA Financing will cover 100 percent of total project cost. No counterpart funding is required for this project, given the country current economic and fiscal situation. However, the Federal Government and the participating states will ensure adequate funding of staff and operating cost of the existing implementation structures of CADP, which the Federal Government proposes to use for the implementation of this project, until the selection of project staff is completed.

38. Furthermore, the Federal Government and participating states will ensure adequate office accommodation of the project staff and implementation of activities at the federal and state levels, and may provide additional counterpart funding during the project implementation to expand project activities in case the fiscal situation improves.

39. The following table summarizes project cost by components and sub-components:

Table 1: Project Cost and Financing

Project Components	Project Cost	IDA Financing US$ m	IDA % of Financing
1. **Production and Productivity Enhancement**	**40**	**40**	
1.1. Business alliance and out-grower Scheme	10	10	
1.2. Technology demonstration	5	5	**100%**
1.3. Support to technology adoption	25	25	
2. **Primary processing, Value Addition, Post-Harvest Management**			

Project Components	Project Cost	IDA Financing US$ m	IDA % of Financing
and Women and Youth Empowerment	**92**	**92**	
2.1. Women and youth empowerment	72	72	
2.2. Commodity aggregation and cottage processing	15	15	
2.3. Market development and business linkages	5	5	
3. Infrastructure Support to Agribusiness Clusters	**40**	**40**	
3.1. Infrastructure support to production	25	25	
3.2. Infrastructure support to processing and value addition	15	15	
4. Technical Assistance, Knowledge and Communication	**10.5**	**10.5**	
4.1. Capacity building and support to collaborating institutions	5	5	
4.2. Technical assistance and knowledge management	4	4	
4.3. Communication and outreach	1.5	1.5	
5. Project Management and Coordination	**17.5**	**17.5**	
5.1 Project management and coordination	10	10	
5.2 Monitoring and evaluation	5	5	
5.3 Environmental and social safeguards and GRM	2.5	2.5	
TOTAL PROJECT COST	**200.0**	**200.0**	**100%**

3. Lessons Learnt and Reflected in the Project Design

40. The designing of this project benefited from direct experience gained from the implementation of CADP and other projects in Nigeria, and also from other relevant Bank operations across different countries. Further, a number of analytical studies[8] contributed to the project design. Experience of other development agencies, such as DFID and USAID, has also been considered. Some of the key lessons reflected in the project design include the following:

- Projects need to be selective in the choice of value chains/crops and be flexible enough to accommodate changes in local context and priority needs of primary target groups. Accordingly, it is important to focus initially on a few cross-cutting issues, locations, and/or value chains with an established comparative advantage and strong market prospects. This project focuses on three priority value chains per participating state out of the long list in the government strategy, while leaving the window open for women and youth led small business start-ups along and around all value chains included in the APP.
- Resource allocations, priorities and action plans should be flexible enough to meet unanticipated opportunities and constraints that will inevitably emerge. This project has a built-in flexible resource allocation for phased allocation of funds based on performance to ensure that fast moving value chains and states are not hampered by lagging implementation in other states and value chains. Participating states will receive an initial funding allocation of US$10 million with a performance and merit based replenishment approach. To continuously operationalize flexibility, a functioning governance and monitoring system will be put in place to help in making corrective decisions.

[8]These studies included: Linking farmers to markets through Productive Alliances: An assessment of the World Bank experience in Latin America, World Bank, 2016; Lessons Learned from the Development of the Kogi Staple Crop Processing Zone, DFID/GEMS3-2016; Growing Africa: Unlocking the Potential of Agribusiness, The World Bank 2013; Mike Goldberg and Daniel Ortiz del Salto-April, The World Bank- Latin America, Finance and Private Sector Department, 2012; and a number of other studies and project documents; and CADP aide memoirs from implementation support mission.

- While government-supported grants are found to be successful, the levels of grant support per sub-project and the arrangements for co-financing vary considerably. In Latin America, for instance, beneficiary contribution was between 10 percent and 30 percent and grants ranged between US$1,800 and US$3,600 per beneficiary. The average grant per Producer Organization (PO) ranged between US$30,000 to US$50,000. As part of this, requiring cash contributions or bank loans as co-financing from producers ensure a stronger buy-in. However, such an approach has to be cognizant of local and country context, especially of countries under financial distress. In case of Nigeria, it is suggested to develop PO to an effective business entity before embarking on seeking supplementary financing. As such, this project will support the necessary conditions for improving access to finance by project beneficiaries.
- Taking the lessons learnt from the implementation of CADP, this new project implementation arrangement will strengthen areas where weaknesses were observed during the project execution. These include addressing capacity limitations, ensuring participation of beneficiaries at local level, avoiding delays in approval processes, defining the responsibilities of each participating actors clearly, and staffing of SCOs with appropriate technical staff.
- An integrated approach that combines hard investments (such as creation of common goods infrastructure) with soft support (capacity building and advisory support), is essential to maximize impact and ensure sustainability of outcomes.
- Finally, the project design has also taken into account shortcomings observed in earlier operations. These include relying on counterpart funding for project activities, which can easily delay project execution; participation of beneficiaries and producers at local level, supported with a functioning communication strategy, is a critical ingredient; capacity improvement is an integral part of the productivity enhancement and value supply development; productive alliances do need sufficient time and close support to reach maturity (TA and business development support, provided by Productive Alliance (PA) projects on a continuous, medium-term basis, have proven to be essential for strengthening producer organizations and laying the ground for entrepreneurial sustainability).

IV. IMPLEMENTATION ARRANGEMENTS

1. Institutional and Implementation Arrangements

41. The overall responsibility for the implementation of the project will be under the auspices of the Federal Ministry of Agriculture and Rural Development (FMARD). FMARD will execute the project, using the implementing structure of the on-going IDA-financed CADP project as requested by the Federal Government. During the first 18-month period of project implementation, it is expected that selection and replacement of CADP staff will be completed, following the agreed selection procedures in compliance with World Bank policies and guidelines. Once staff are selected competitively and are deployed, they will become eligible for being paid through the IDA resources. Such selected staff should not receive any other additional salary, and if they are civil servants, they should be discharged from the government service. The existing CADP's National Coordination Office (NCO) within the FMARD will be

responsible for overall coordination of the project, and will also implement selected project activities at the federal level. The NCO has the required qualifications and experience, and has been performing satisfactorily during the past five years. The NCO will coordinate the project implementation and performance monitoring by adopting the Project Implementation Manual (PIM), which will be prepared taking into consideration CADP's implementation manual. The NCO will also be responsible for the overall coordination of communication with the World Bank. At state levels, project activities will be implemented through the existing five States Coordination Offices (SCOs) and through new SCOs that will be established in Kogi state and in the additional participating states. The relevant executing agencies and implementation arrangements both at federal and state levels will be strengthened to account for new project activities, associated design and to reflect lessons learnt from the execution of CADP.

42. At the federal level, the National Steering Committee (NSC) will be the oversight organ, while at the state level, there will be two layers of oversight comprising the State Steering Committee (SSC) and the State Technical Committee (STC).

43. The NSC will be chaired by the Minister of Agriculture and Rural Development or the Permanent Secretary as a designated representative. The committee's membership will comprise representatives of relevant Ministries, Departments and Agencies (MDAs) at the federal level (including but not limited to Federal Ministry of Finance and Federal Ministry of Budget and Planning) and other stakeholders involved in the execution of the project (the list of the NSC members is given in Annex 3). The functions of the NSC will be to carry out overall oversight of the project, including review of consolidated project monitoring and implementation progress reports and approval of consolidated Annual Work Plan and Budgets (AWPB), submitted by the NCO. The NCO will serve as the secretariat for the NSC.

44. The NCO will coordinate project activities on behalf of FMARD, and will implement cross-cutting activities that benefit all participating states (in particular under Components 1, 4, and 5). NCO will have primary responsibility for the preparation of capacity building and communication plans, as well for undertaking studies and FAMRD related activities, while SCO will be responsible for implementation of the activities pertaining to the states. At federal level, the NCO will be responsible for managing procurement; administering the M&E system; coordinating the work of the different partners; preparing periodic reports, and providing support to SCOs. The NCO will be responsible for coordinating and consolidating the preparation of the project's AWPB approved by the NSC. The NCO will also be responsible for consolidating project monitoring and implementation progress reports, received from SCOs, that will be part of the quarterly and annual overall project progress reports. The NCO will supervise and provide technical support to SCOs in implementing the project activities at state level. The NCO will have a reporting responsibility both to NSC and to the World Bank. To ensure that NCO discharges its duties on time and efficiently, the entity will be staffed with competitively selected staff that could benefit from TA as required. In addition, a third-party service provider may be contracted to provide support to NCO and SCOs in project execution.

45. At the state level, , the State Coordinating Offices (SCOs) under the coordination of the SSC and STC, will carry out the day-to-day execution of project activities. The existing SCOs, under the current CADP operation, will be strengthened to perform the new functions under this project while new SCOs will be created in Kogi state and in the additional new participating states. In carrying out their functions, the SCOs will facilitate and coordinate project activities in their respective states, and will be responsible for preparing monitoring reports, annual work

plans and budgets, and periodic reports, and submitting them to the SSC, STC and NCO. The SCO will serve as the secretariat for both the SSC and the STC. In this regard, the SCOs will have a reporting responsibility to the SSC, STC and NCO. They will also be responsible for all fiduciary aspects of project execution except financial matters.

46. The responsibility for financial management of the project will lie with the existing Projects Financial Management Units (PFMUs) in each of the participating states. Specifically, the PFMUs will be responsible for: (i) managing the State Designated Accounts, monthly project bank account reconciliation statement, Statement of Expenditure (SOE) Withdrawal Schedule, calendar semester Interim Financial Reports (IFRs) and annual project financial statements; and (ii) ensuring that the project financial management arrangements are acceptable to IDA. They will also forward the reports and statements to State Ministries of Agriculture and Finance as well as IDA.

47. Oversight policy and strategic orientation functions will be performed by the SSCs at state level. The SSCs will be headed by the State Deputy Governor or his designate in each state. The SSCs will ensure alignment of the project with state policy and development programs; approve State Annual Work Plan and Budget (SAWPB) prepared by SCOs and cleared by STC; and assess project implementation progress reports. The SSCs will function at the state levels, to a certain extent, the way the NSC functions at the federal level, but they will be supported by STC.

48. To support the activities of both the SSC and the SCO, a State Technical Committee (STC) will be organized that will meet quarterly and as needed to provide technical back-up to the SCO. The technical group will be chaired by the Permanent Secretary for each state. Given that the project is designed to allocate resources based on the performance of each state, the STC will closely follow and facilitate the periodic utilization of the funds availed under the project. The STC will review technical, monitoring and other reports; guide and facilitate project implementation; ensure that the project is executed in accordance with the project design; facilitate and create a forum for collaboration among projects and agencies that are operating in their respective states, and are engaged in activities relevant to the project; and ensure that project implementation is carried out according to SAWPB, as approved by the SSCs and in accordance with the Project Implementation Manual. The STC has necessary mandate to facilitate stakeholders' participation at the state level, with the aim to enhancing operational synergy and complementarity. The technical committee will also ensure that the actions agreed between the SSC/SCO, the Bank Implementation Support Mission reports and other observations made by external assessment (such as audit service), are implemented timely.

49. The oversight and supervision mechanism, at both federal and participating states levels, will significantly help in addressing any tendencies towards a lack of transparency and accountability that may arise, in addition to strict observance of Bank's guidelines and procedures.

2. Results Monitoring and Evaluation

50. The Project Implementation Units (NCO and SCOs) will have overall responsibility for the monitoring of project results including output and outcome indicators. Data collection and evaluation tasks could be performed either through partnership with universities or research

institutions. Given the many value chains that the project will support, NCO may recruit a third-party firm that will support the work of the NCO and SCOs.

51. The implementing units will be staffed with qualified M&E Specialists, who will benefit from tailored capacity building programs to acquaint themselves very well with the scope and nature of the project and the methodology to be followed.

52. The project will support the deployment of an M&E and Management Information System (MIS) that will facilitate performance monitoring and impact evaluation against the specified indicators, including gender tracker and safeguards related indicators. While the performance monitoring process facilitates informed decision-making, the outcome assessment will provide information on whether the project has achieved its development objectives.

53. The SCOs will work closely with relevant MDAs of government, research institutes and universities, NGOs, private sector actors and other institutions for the purposes of data collection, and M&E of the project. An MIS facility will be developed to maintain the database of project results, including performance against social and environmental indicators and will feed into the TA, intended for peer learning among the participating states. With respect to reporting, a quarterly project progress report will be prepared by the project and submitted to the Bank and project Steering Committees as applicable. The project progress report will capture the use of funds as well as project disbursement, including progress made under each component of the project. Along with the progress report, the project result framework will be used to show progress against project targets.

54. The tracking of project results will be carried out through enterprise visits by facilitators as well as through regular surveys at the state level. The data collection activities are coordinated at the state level by the M&E officer under the supervision of the State Project Coordinators (SPCs), and as such will fall under the responsibility of the M&E specialist. Collection of data and reporting will be carried at project beneficiaries level. In terms of evaluation, three evaluations are planned: an independent baseline survey to be conducted during the first year of the project, a mid-term survey to be done after two years of project implementation, and an end-line project impact evaluation.

55. Rigorous impact evaluation will be carried out by the project in collaboration with the World Bank Impact Evaluation (IE) team. The impact evaluation will be structured to provide a good opportunity for learning from project implementation experience and results. The project Task Team through the supervision and technical missions, and the Bank IE Team through oversight, will provide quality assurance to the M&E process and operation.

56. The Project M&E and MIS will include a gender tracker, and will be complemented by a dedicated communication and knowledge management arrangement that will be put in place so that emerging lessons from project implementation could be documented.

3. Sustainability

57. Project design and activities are aimed at creating a continuous stream of income from a market-oriented agricultural system that is effectively linked and is part of the supply cluster for a given value chain. The project will also introduce and demonstrate in each beneficiary farm (using up to 2 ha per individual farmer, to a maximum limit per farmers' group and per crop/activity as defined in the Project Implementation Manual) an improved production system that will allow farmers to scale up to their remaining land. Thus, the project is setting the stage

for further expansion of project impact into the future. Specific to infrastructure to be built, the project will first establish a management structure and O&M arrangement for each infrastructure before investing in such undertakings. Since the project activities are planned to receive tailwind from its market-oriented approach, outcomes are expected to create their own dynamism in the form of further investment and expansion – as experiences from other similar interventions have aptly demonstrated. The involvement of the private sector throughout the out-grower schemes, among others, also bodes well for the sustainability of project outcome and its further scale-up.

58. The project is expected to deliver sustained high income along the segments of the selected value chains. Once farmers realize that their income will rise and new opportunities are created through their inclusion into supply chains and agro-processing, they are willing to invest in improving their farms and in establishing cottage processing. As such, the project is expected to unleash a dynamic that will transform small and medium-scale farmers' subsistence agriculture into a market-oriented production system, which will bring a marked difference in the livelihood of targeted beneficiaries.

59. The institutional and implementation arrangement that will mainstream project activities into government programs and institutions, will secure ownership and commitment of the authorities towards achieving project development objectives. The proposed implementation arrangement involves the participation of high level executive at federal level (Federal Minister of Agriculture, the Permanent Secretary and line Directors of the Ministry), the State Governors (who will commit their specific states as participant in the project), the Deputy Governor or Permanent Secretary who heads the SSC, and several line Directors at the state level, which assures commitment to project ownership at a very high level, and bodes very well for the sustainability of project outcomes.

4. Roles of Partners

60. There is no co-financing or parallel financing of the project for now, but meaningful partnerships will be sought with other government and development partner's assisted programs. In particular the project will ensure complementarity and partnership with the upcoming African Development Bank (AfDB)-assisted Enable Youth Project, the Bank-funded FADAMA project, and with other government backed initiatives, aimed at supporting women and youth in inclusive agri-business value.

61. The project will further explore partnership with the AfDB and the Islamic Development Bank (IsDB) for expansion of the commercial agriculture agenda in Nigeria. It will also build on achievements and knowledge, accumulated under United States Agency for International Development (USAID)-sponsored Markets II and DFID-supported GEMS project on value chain development and market linkages.

62. Furthermore, the project will foster partnerships with selected national and international institutions (see Appendix 1 to Annex 2 for indicative list and possible areas of collaboration) both at federal and state level for implementing specific activities (e.g. research and training institutes for organizing technology demonstrations, and supporting the women and youth empowerment program; universities for strengthening M&E and safeguards functions through surveys and studies, and sourcing internships to NCO and SCOs).

63. The project also strives to avoid duplicity with similar projects. The participating states under this project are not benefiting from a comparable project to be financed by the AfDB, i.e. –

First Agricultural Transformation Agenda Support Program (ATASP-1) which will support rice value chain in Kebbi, Sokoto, Niger, Kano, Enugu, Anambra and Jigawa states. The project may possibly partner and coordinate with ATASP-II, being discussed with the Federal Government, which would support the implementation of the Staple Crop Processing Zones (SCPZ) in states, yet to be determined.

V. KEY RISKS

1. Overall Key Risk Rating and Explanation of Key Risk

64. The overall project risk has been rated '**Substantial**'. Risks associated with the project and its operating environment were assessed in detail, and mitigation measures were determined during the project preparation. The risk ratings summary table prepared using the "Systematic Operations Risk Rating Tool (SORT)", is presented in the Project Data Sheet.

2. Overall Risk Rating Explanation and Mitigation Measures

65. Risks associated with the implementation of the project have been thoroughly examined from various angles, including the technical design, environmental and social safeguards, gender issues, micro-economic context, sector strategies and policies, fiduciary arrangement, as well as from a political economy perspective (see summary of the political economy and institutional capacity assessment in Annex 6). Following the analysis, mitigation measures were determined and incorporated into the project design.

66. *Political and Governance*. The risk has been rated Substantial. The new administration has clearly demonstrated its commitment to the project and the sector through APP. Consultation with participating state governments revealed that this project will remain their priority, and they will demonstrate their commitment by allocating budgetary resources from their own coffers. The government is also committed to the diversification of the economy where agriculture has been identified as an important sector to support the diversification agenda. The Federal Government has shown its commitment to manage development resources efficiently through high level actions and policy statements. Coordination of externally funded projects' responsibilities between the federal and state levels is a complex phenomenon, and incomprehension or misinterpretation at any level can affect the project implementation negatively. A communication strategy, to be supported by the project, will ensure that transparency is maintained at all levels of project management and implementation, and the participation of beneficiaries remains at the core of the project. In view of the expected priority for periodic assessment and close monitoring of residual risks throughout the project implementation, the risk has been rated as Substantial.

67. *Macroeconomic risks* are rated Substantial. Falling oil prices have undermined economic growth in the country and remain a major source of risks, which may be exacerbated further by security challenges, natural disasters, and climate change. With reliance of a few primary exports and a relatively undiversified economy, Nigeria remains vulnerable to external demand and price shocks. The macroeconomic challenges are compounded by pressures from weak fiscal management. The World Bank is in close dialogue with the authorities on the reform program in support of restoring macro-economic resilience and economic growth.

68. *Sector Policies and Strategies*. This risk has been rated Substantial. The new Agricultural Promotion Policy (APP) builds on the Agricultural Transformation Agenda which provides

opportunity for continuity and predictability of the policy environment. The APP aligns with the broader economic diversification agenda and the Economic Recovery Plan intended to address the economic recession. One major risk is frequent changes in the agricultural policy, especially the tariff policy, which would change the economic incentives faced by farmers and private sector alike. Considering this is a multi-sector project, risk associated with other sector policies (e.g. transport and energy) might also affect the implementation of the project. These risks will be mitigated through a sustained, evidence based policy dialogue and engagement with the government to ensure sustainability of the reforms in the sector.

69. *Technical Design*. This risk has been rated Moderate. The approach for agribusiness partnership, proposed by this project, has already been successfully implemented under CADP. In addition, the lessons learned both from CADP and other similar operations, have been incorporated into the project design. The project design is based on analyses undertaken during preparation, as summarized under Annex 2.

70. *Institutional Capacity for Implementation and Sustainability*. This risk has been rated Substantial. While capacity at the federal level for implementing World Bank-supported agricultural project activities is adequate, there is a risk at state level insufficient experience, structure and technical knowhow to manage the new project design features. To address this specific gap, SCOs' staff will be provided necessary training at the time of launching the project, and newly recruited staff particularly in Kogi state will benefit from an induction training program in project implementation. Furthermore, the project design has strong focus on institutional arrangement and capacity building of the project staff and partners. . Coordination challenges will be addressed by Steering Committees at federal and state levels. A Technical Committee at state level, chaired by the Commissioner of Agriculture, will also be formed to ensure that project related benefits are derived from collaborating institutions, department heads and experts. To supplement project's implementation capacity, NCO and SCO will collaborate where relevant with FADAMAIII on the area of productivity enhancement, with the Rural Access and Mobility Program (RAMP) to ensure additionality and complementarity of actions related to rural and farm access roads, and with the Growth and Employment Project (GEM) in the area of business development services. Further, the project may contract a third-party service provider to assist the states in project execution. Taking into consideration the partial decentralized nature of project implementation, and the low capacity at local level, the risk rating is deemed to be Substantial.

71. *Fiduciary*. The financial management risk is assessed as Substantial. The key risks identified are those of value for money in works/construction contracts and capacity building events. Based on prior experience, capacity building activities for the project (such as training workshops) have been identified as having significant fiduciary risks. Therefore, specific additional steps to be taken to mitigate the risk will include (i) all training and workshop activities will be subject to prior review by the Bank; (ii) the activities will be part of the approved annual work plan for the year (i.e., not on ad hoc basis); (iii) they will be a part of the project training plan; and (iv) they will comply with the enhanced accountability framework. Specific to this operation, various fiduciary monitoring approaches that have served the CADP well, will be further strengthened and followed to ensure adequate governance of the project.

72. A qualified procurement specialist will be selected competitively for the project and will be responsible for carrying out procurement activities for the project both at national and states' respective PIUs. To mitigate against procurement risk and to avoid incorrect procurement,

goods and consultants' services will be procured in accordance with the "Guidelines On Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006, and updated January, 2011, revised July 2014, and the ". "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011 (revised July 2014).

73. *Environment and Social*. The risk has been rated Substantial. The Environmental Category assigned to the project is Category B, predicated on the assumption that environmental risks and social impact may not have serious adverse impact of sensitive or diverse nature. It is clear that the project may not be engaged in the development of heavy infrastructure and acquisition of large expanse of land. An Environmental and Social Management Framework (ESMF), a Resettlement Policy Framework (RPF), and an Integrated Pest Management Plan (IPMP) for the project have been prepared and publicly disclosed in-country and at the World Bank. The findings and recommendations of the ESMF and RPF have been internalized in project design, and specific Environment and Social Impact Assessment (ESIAs) and Resettlement Action Plans (RAP) will be conducted for each of the public and private investments once the type of work is determined and precisely located. This project will support the preparation of a Strategic Environmental and Social Assessment covering all areas and localities in which the project will operate, to ensure that any negative impact is mitigated.

74. *Stakeholders/Gender Issues*: There is a risk that women will be disadvantaged in terms of their access to employment and participation in out-growers arrangements. A detailed gender assessment and tracking for the project will be undertaken with the DFID-supported Gender Filter Trust Fund, in collaboration with the Africa Gender Innovation Lab, and incorporated into the Project Implementation Manual. Furthermore, a substantial part of the Component 2 (35% of project funding) will support a Women and Youth Empowerment program, contributing to the correction of the gender and youth gap in agriculture, in line with the 10 Joint Policy Recommendations towards a Transformed Agriculture and Food Secure Africa. Affirmation of 35 percent female inclusion in all aspects of the project as projected in the Result Framework, should include representation (quorum in joint community meetings), jobs, extension agents, facilitators, and agri-business and entrepreneurship development. TA and training on all relevant aspects (in particular, preparation of business plan, accounting and financial management) will be provided to women with the objective of building their capacity to make proper use of the funds made available to them.

VI. APPRAISAL SUMMARY

1. Economic and Financial Analysis

75. The direct expected economic benefits of the project would result from interventions across the selected value chains, namely: (i) enhanced productivity through the dissemination and use of improved, appropriate technologies, and capacity building; (ii) increased operating efficiency at farm level through improvements in production and marketing process, logistics, and market institutions; (iii) extended value addition at farm and/or post-farm level with greater linkages among key players along the value chains; (iv) improved market access through the business alliance and provision of last mile infrastructure connection to link farmers to markets; (v) reduction in post-harvest losses; (vi) increased income from diversification to high value

crops; and (vii) income generated from jobs, created by new agro-processing enterprises. In addition, the project's planned TA and training would provide further indirect benefits in the form of stronger farmer cooperatives and skilled young entrepreneurs who are able to actively and profitably engage with the market, more market-oriented and active agri-businesses with stronger links to producers, as well as more structured planning for value chain improvements at the state level.

76. The ex-ante economic, financial and value chain analysis was carried out by the government's Project Preparation Team for selected commodities (rice, maize, cassava, wheat and aquaculture), prioritized in the APP. There is a significant opportunity for the project to enhance the production and competitiveness of these commodities, which have been selected for their importance to Nigeria's export/import markets, food security needs and livelihood improving potential. The objective of this analysis is to ascertain the financial and economic feasibility of the proposed project. The project is expected to be financially viable to the extent that it will increase the net financial benefits to participants and generate net positive benefits to the economy as a whole. The analysis covered production, assemblage and processing segments of the value chain.

77. The overall Economic Internal Rate of Return (ERR) for this project is estimated to be 52.62 percent, with the ERR ranging from 47.81 percent in wheat to 62.41 percent in aquaculture. The NPV also ranged from US$ 0.55 million for maize to US$ 35.89 million for aquaculture. This result shows that the various value chains in the project are economically viable from the stand point of the society. Also, the estimated financial rates of return (FRR) for the enterprises range between 46.47 percent for wheat production to 54.32 percent for aquaculture production. The profitability of many enterprises is further reinforced by the high and positive net present values as shown in Table 2 below:

Table 2: Estimated Financial and Economic Rates of Return on Value Chain Enterprises

	Enterprises	**Estimated ERR (%)**	**NPV* (Econ) (US$' Million)**	**Estimated FRR (%)**	**NPV (Fin)* (US$' Million)**
1	Aquaculture	62.41	35.89	54.32	32.43
2	Rice production	48.46	2.99	47.43	2.8
3	Maize production	55.45	0.55	53.7	0.54
4	Cassava production	49.0	4.78	48.93	4.77
5	Wheat production	47.8	1.89	46.47	1.88

**Conversion rate at reappraisal stage (November 2016) is N315.25 to $1.00*

Sensitivity Analysis and Switching Value

78. The sensitivity analysis for the enterprises under this project was carried out to see how the internal rate of returns and the net present value will change if cost was increased by 10 percent and 20 percent, and revenue/benefits reduced by 10 percent and 20 percent respectively. In the final analysis, the switching values for increase in cost and reduction in benefits were computed. This is the maximum percentage increase in cost or reduction in benefits that will

make the NPV to be less than zero (negative NPV). The results of the sensitivity analysis and the switching values are shown in Table 21 in Annex 5).

79. For both the economic and financial analyses of the enterprises, a 10 percent and 20 percent increase in the cost of the project still produced net present values and internal rate of returns that are feasible since the NPV for all the crops are still greater than zero while the internal rate of returns were also greater than the cost of capital that was put at 26 percent. The switching values for cost of the various enterprises range from 32.42 to 64.08 percent for economic and 30.83 to 68.07 percent for financial analysis.

80. As for a 10 percent and 20 percent reduction in benefits, all the crops are sensitive above a 10 percent decrease in benefits. At 10 percent reduction, all the discounted measures were favorable but if benefits were reduced by 20 percent for all the crops, the net present values will turn negative while the IRR were also below the cost of capital. One can safely conclude that the project is highly robust to increase in prices of inputs (cost) while being sensitive to a reduction in output prices (benefits). The switching values for economic analysis of the crops range from 14.37 to 17.04 percent while the range for those of the financial analysis was 14.28 to 15.65 percent.

Assessment of the Competitiveness and Comparative Advantage of Key Value Chains

81. Complementing the analysis done by the government, the Bank team carried out an economic analysis of the value chains of the same selected commodities listed above, using a Policy Analysis Matrix (PAM).

82. The domestic resource costs of the selected commodities is listed in Table 3 below. The Domestic Resource Cost (DRC) ranges from 0.969 for aquaculture to 0.086 for cassava, indicating that Nigeria holds a comparative advantage in the production of these crops. Similarly, the Financial Cost Benefit (FCB) ratio indicates that each of the commodities is relatively profitable. The project is expected to contribute to the optimization of the value chain and the elimination of leakages, resulting in increased productivity and competitiveness in the export market.

83. A "With Project" increase in yield of 20[9] percent leads to a projected reduction in the DRC for all the commodities under consideration. In particular, the DRC for aquaculture reduces by 35 percent and the DRC for wheat production reduces by 24 percent post project implementation. This indicates that there is a significant opportunity to increase the efficiency of these particular industries. Increased production of these commodities will contribute towards enhancing food security and reducing the imports. In contrast, the DRC for cassava production is 0.079 indicating that Nigeria already holds a substantial comparative advantage in this crop and that the project should focus on making the systems more export friendly.

Table 3: Estimated Domestic Resource Cost (DRC)

S/N		**Status-quo**		**20% Increase in Yield**		**Percentage change**	
	Value Chains	**DRC**	**FCB**	**DRC**	**FCB**	**DRC**	**FCB**

[9] Using conservative assumption consisting 35% increase in yields by half of supported farmers.

1	Cassava	0.086	0.258	0.079	0.236	-8%	-9%
2	Rice	0.479	0.371	0.427	0.338	-11%	-9%
3	Maize	0.593	0.514	0.549	0.484	-7%	-6%
4	Aquaculture	0.969	0.052	0.634	0.05	-35%	-4%
5	Wheat Production	1.187	0.322	0.898	0.28	-24%	-13%

Rationale for Public Financing and Bank value addition

84. Limited access to financial services and high cost of capital is a serious constraint to modernization of the agriculture sector in Nigeria. While it will take some time to address the political and institutional obstacles to bold reforms need in the financial sector to make agriculture and SME friendly, public funding is need to tackle binding constraint to farmers access to improved inputs, and participation to agricultural value chains. The economic analysis shows clearly that interventions on value chain selected for project support will benefit directly to farmers and other beneficiaries along the value chains, but will also benefit the entire economy. By financing the proposed project, The World Bank will provide critical resources to the Government, in a time of severe economic and fiscal downturn. The World Bank also will bring global knowledge to foster inclusive agribusiness development, with greater involvement of women and youth in in long agricultural value chains a, and improved linkages of smallholder to markets and services.

2. Technical

85. The project design incorporated lessons learned in value chains development in Nigeria and also benefitted from experiences of other countries mainly in the area of Productive Alliances' key features[10]. More important, the project design was fine-tuned in line with Nigeria's context and specific features (mainly capacity, financing and private sector readiness). The World Bank portfolio in Nigeria has accumulated extensive experience in major technical aspects of this project, related to: provision of light infrastructure items such as surface dressed access/ farm link roads; water access points and water supply systems for irrigation and livestock watering; electric power connection to national grid; energy utilization from alternative sources; demonstration and dissemination of improved agricultural technologies and inputs; procurement and operation of agricultural equipment; processing machines and storage facilities such as agricultural tractors, rice processing machines and warehouses; and processing activities. Based on studies, experiences and lessons learnt from previous and current activities of the Federal Ministry of Agriculture and Rural Development, as well as from projects supported by the World Bank and other development partners, it can be concluded that there exists adequate capacity to undertake procurement, distribution, and operation and maintenance of the procured items. Additional capacities needed for effective implementation of the project will be sourced from partners, collaborators and other appropriate agencies.

[10]The World Bank, November 2016-Linking Farmers to Markets through Productive Alliance. An Assessment of the World Bank Experience in Latin America.

86. A preliminary assessment was conducted, following the methodology adopted by the Bank for accounting greenhouse gas (GHG) emissions. The ex-ante analysis was conducted for representative crops that will be the basis for value chain development. Using the methodology, the net carbon balance quantified to estimate GHGs emitted or sequestered as a result of the "With Project" compared to the "Without Project" scenario. The results indicate that the project constitutes a carbon sink of 692,438 tCO2-eq over a period of 20 years. The project provides a sink of 6 tCO2-eq per ha, equivalent to 0.3 tCO2-eq per ha per year. The main carbon sink source is primarily from improved CSA practices for annual crops. The analysis is limited to maize, cassava, rice and aquaculture. However, the project will support the improvement and development of tree crops (such as cocoa and oil palm) that demonstrably have high sequestration impact. Accordingly, the above results show the minimum sink level that accrues from the activities, supported by this project.

3. Financial Management (FM)

87. Responsibility for establishing and maintaining acceptable FM arrangements in the participating states will be handled by the existing Project Financial Management Unit (PFMU) while the responsibility for FM arrangements at the federal level will lie with the Federal Project Financial Management Department (FPFMD). The PFMUs and FPFMD are multi-donor and multi-project FM platforms, established in all states and at federal level respectively through the joint efforts of the Bank and the government. These common FM platforms feature robust systems and controls, and are presently involved in the implementation of a number of Bank-assisted projects. The Bank's recent review showed that these units have been performing satisfactorily.

88. The key issues noted within the PFMUs and FPFMD are unretired advances and inadequate documentation of the eligible expenditures incurred. In view of this, the project will implement an enhanced accountability framework to mitigate the risks of unretired travel advances, provision of inappropriate documentation to acquit the travel advances, and unjustifiable claims for travel not undertaken. Details of the enhanced accountability framework will be elaborated in the Financial Procedures Manual (FPM). Project Accountant, Project Internal Auditor and other supporting accounting technicians will be designated for the project from the pool of professional accountants in the Office of the State Accountant General and Office of the Accountant General for the Federation that will make for appropriate segregation of duties. The implementation of some action plans is required to strengthen the FM system in the PFMUs and FPFMD. Further to the recommended action plans, being implemented as per the agreed time frame, the FM arrangements will meet the minimum FM requirement in accordance with OP/BP 10.00. Taking into account the risk mitigation measures, the FM risk for this financing is assessed as Substantial. Annex 3 provides additional information on financial management.

4. Procurement

89. Considerable progress has been made on procurement reforms in Nigeria since the passing of the Procurement Act, in 2007. Among the results are the creation of cadre of procurement professionals, and the development and deployment of the national standard bidding documents, which have been cleared for use in national competitive bidding in World Bank-funded projects in the country. Over two-thirds of the federating states have enacted the

public procurement law, which is modeled after the United Nations Commission International Trade Law (UNCITRAL), and many states have functional regulatory agencies. The remaining states are at various stages of enacting the public procurement law. In spite of these achievements, challenges remain. The procurement capacity is still considered low and most of the states do not have procurement tools in place. Although procurement activities are carried out at the procuring entity level, approval of contract awards at a pre-determined threshold is the prerogative of the Governor and the State Executive Council at the state level and Federal Executive Council at the federal level.

90. Procurement management of the project would be built on the existing CADP platform at the federal level, and in the respective states, which participated earlier in CADP, while for Kogi State that is joining the project, it would constitute procurement unit within the 'State Coordination Office. A decision was made, after discussions with the government, to fully retain the procurement responsibilities with the project management team, National Coordinating Office (NCO) at the federal level, and project's State Coordination and Development Offices (SCAOs), while the Ministry of Agriculture will perform the oversight function through the National Steering Committee. The procurement units would be headed by experienced Procurement Officers who would be competitively selected from the civil service of the respective states. These civil servants would have understanding of the IDA procurement guidelines, procedures and documentation. Both at the federal level and in the participating states, the responsibility of the implementation of procurement plans will lie with both the NCO and SCOs. The Procurement Officers, both at the federal and state levels, will provide the required procurement support to the PIUs towards achieving value for money with regards to efficiency and effective procurement process. The NCO will competitively hire an experienced procurement consultant to provide support to both the NCO and SCOs, especially to build the capacity of the Procurement Officers and other project staff at NCO and SCOs in the states that have low procurement capacity.

91. At the beneficiary level, the producers' organizations (CIGs, cooperatives, etc.) and small to medium-scale SMEs will have responsibility for implementation of sub-projects under the matching grants under Component 1, while youth and women will implement their business plans with grants provided under Component 2. Beneficiaries should belong to interest groups/cooperatives that support the value chain of their interest. SCOs should have a directory of service providers that could provide services to the project beneficiaries. The Service providers will be screened by SCOs, and their services will be certified by beneficiaries and SCOs' officer/agent before full payment is made. Service providers will be both public and private sectors operators, and there would be a level playing field in the selection process, which will be detailed in the Project Implementation Manual.

92. *Guidelines.* Procurement for this project would be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits and Grants ", dated January, 2011, revised July, 2014; "Guidelines: Selection and Employment of Consultants by World Bank Borrowers", dated January, 2011, revised July, 2014; "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, (the Anti-Corruption Guidelines)", dated October 15, 2006, and revised January, 2011, and the provisions stipulated in the Legal Agreement. For each contract to be financed by the Credit, different procurement methods, consultancy services selection methods, estimated costs, prior review requirements, and time frames have been agreed between the Borrower and the

World Bank in the procurement plan. The first 18-month procurement plan was approved by the World Bank prior to the conclusion of the negotiations and will subsequently be updated at least annually or as required to reflect actual project implementation needs and improvements in the institutional capacity.

5. Social (Including safeguard)

93. The project has been designed to have a substantial positive social impact. First, the project directly targets farmers' cooperatives and groups. Women and youth are targeted under a dedicated sub-component to help improve their livelihoods through gainful employment. The project will finance a number of activities aimed at capacity improvement of farmers, women, youth and other beneficiaries. Its spillover effect is expected to be substantial. Expected gains from enhancing agricultural productivity, agro-processing, access to markets, and improved post-harvest handling (including packaging) are bound to lead to increase in beneficiaries' income and creation of jobs in the project areas. The project will contribute to social cohesion in localities of interventions through strengthening of existing cooperatives and encouraging the formation/strengthening of farmers' groups.

94. Possible negative social impact that could result from works to be supported by the project, is determined to be localized and site-specific, which can be mitigated relatively easily. Additional potential adverse social impact could be the loss of access to common resources (such as land) due to shifting from certain earlier activity to some specific project-supported sub-project (for example, in case common grazing land is chosen for establishing an agro-processing facility or for that matter some other sub-project).

95. The project will take necessary mitigation measures to comply with Operational Policy (OP) 4.12 on Involuntary Resettlement to address this limited potential negative impact. No displacement is envisaged under this project. However, in case it becomes necessary, compensatory mechanism will be activated for affected persons meeting eligibility criteria.

96. *Gender*. The project will have major positive impact on gender equity in its intervention areas as it specifically targets women and youth. The project will proactively and systematically ensure the participation of women in all those activities that enhance equal opportunities and reduce imbalanced outcomes. Over 35 percent of the project beneficiaries are expected to be women.

97. *Public Consultation and Communication*. Consultation and communication have been built into the project design and will be undertaken at all levels of project execution. First, the Steering Committees at all levels serve as a forum for consultation on project plans and activities. As such, sub-project selection will be a result of intensive consultations with the beneficiaries. The project itself will create awareness among potential beneficiaries about its interventions. Stakeholders will be involved from national to local levels through different organizational arrangements, planned under the project, which includes project steering committees at all levels, technical Committees, and local groups. The project organized a number of consultations during its preparation, and will keep the consulting process ongoing.

6. Environmental (including safeguard)

98. Environmental Assessment Policy (OP/BP 4.01) is activated, and the project is rated "B". While the project will include certain activities that affect the environment positively, the

support to sub-project infrastructure involving small-scale works, and agricultural intensification involving the use of inputs, could potentially have adverse impact on soil, water and vegetation covers. An Environmental and Social Management Framework (ESMF), disseminated in the country on January 30, 2017, will ensure that activities, supported by the project, will have no negative environmental impact, and will take minimizing measures in case of any adverse impact. The ESMF includes the steps, procedures and protocols that will be followed in preparing site-specific safeguards instruments as soon as the exact location and activities, to be financed under the proposed project, have been determined. In addition, the document describes how and when environmental and social concerns, stemming from project activities, are identified, fully appraised at all levels of project interventions, and monitored throughout the implementation, and which entity will be responsible for taking these actions.

99. Possible site-specific potential adverse impact may be caused by the use of agricultural chemical inputs (fertilizers, pesticide, insecticide, etc.) and small civil works. The adverse impact could include contamination of soils and surface water, waste generation, dust pollution, disruption in natural habitats, and groundwater contamination because of runoffs. However, it is expected that the ESMF will outline specific actions to mitigate any identified adverse impact.

100. The following additional safeguard policies are activated by the project:

a. **Natural habitats (OP/BP 4.04)**. The implementation of support services to agro-processing such as extension of electricity transmission lines and installation of gas pipelines might pass through important natural habitats such as swamps and marshes. To the extent possible, the project will strive to stay away from sensitive natural habitats, and will make all efforts to avoid incursion into such habitats. However, to account for the very low probability that this may occur, the approved ESMF specifies the procedures and processes that will be followed to ensure that potential adverse impact is avoided and/or mitigated. There will be stringent monitoring at all levels to ensure that the project avoids incursion in sensitive natural habitats during site selection for sub-project activities and establishment of relevant facilities.

b. **Pest management (OP4.09).** One of the aims of the project is enhancing agricultural productivity, which will most probably involve the use of new technologies and inputs such as pesticides. Some of these activities may be directly financed by the project, while others may be supported by farmers themselves with TA from the project. To ensure that potential risks and adverse impact are identified and mitigated to acceptable level, the Borrower has prepared an Integrated Pest Management Plan (IPMP) for the project. The mitigation measures included in the plan are application of integrated pest management (IPM) practices, application and promotion of integrated pesticide management practices outlined in the guidelines of the International Code of Conduct (ICC) on the Distribution and Use of Pesticides, and risk management for transgenic crops through the national bio-safety framework and international best practices.

c. **Physical cultural resources (PCR) (OP/BP 4.11).** At this point, any specific PCR site that may be affected, has not been identified for the main reason that specific localities where sub-projects and related infrastructure works would be undertaken, are still to be identified. The project, however, has opted to follow a preventive approach to ensure that its activities will not affect PCR from operations like excavation for pipelines, rural road works (including new and maintenance works) and other ancillary facility works. The Environmental and Social Screening Checklist, the Generic Environmental and Social Mitigation Measures, and the ESMF explain a chance finds procedure for archaeological remains and other historical heritages along construction routes and sub-project sites. The ESMF contains the appropriate mitigation measures (chance find procedures) as well as clauses for contractors to be utilized in case of discovery of cultural relics of archaeological remains during the works. While the project will monitor for this possible potential encounter, there is presently no sufficient ground to activate this safeguard policy.

d. **Involuntary re-settlement (OP/BP 4.12).** This safeguard is activated because infrastructure investments could result in involuntary re-settlement and land requisition. In view of the fact that the actual sites for sub-projects have not yet been identified, the Borrower has prepared a Resettlement Policy Framework (RPF) in accordance with the Bank Safeguard Policy on Involuntary Resettlement (OP/BP 4.12). The RPF outlines the re-settlement process in terms of procedures for preparing and approving Resettlement Action Plans (RAPs) that cover; likely categories of affected people, eligibility criteria and categories, compensation rates, methods of valuing affected assets, community participation and information dissemination, Grievance Redress Mechanism, and effective M&E. The RPF prepared by the government will apply to land requisition, displacement, compensation, livelihood restoration and other matters in the participating state such as those related to investments including infrastructure that are to be directly funded by the project. Thus, the RPF will guide the development and implementation of project associated RAPs, to ensure compliance with OP 4.12.

101. The ESMF includes details of 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) recruitment of full-time environmental specialist and social and livelihood expert within the NCO, responsible for screening of activities and drafting of ESMP; (b) realization of an ESIA for all activities with substantial environmental and social impact; (c) capacity building and training of all stakeholders involved in the implementation of sub-projects; (d) organization of meetings between local, regional and national stakeholders; and (e) drafting of an Environmental and Social Manual of Procedures.

7. World Bank Grievance Redress

102. 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 the WB's Grievance Redress Service (GRS). The GRS ensures that the complaints received are promptly reviewed in order 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 the 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 visithttp://www.inspectionpanel.org.

103. **Citizen engagement:** Taking the lessons learned from CADP and other World Bank-supported operations at local level (mainly FADAMA-AFII), the project will create forums for citizen feedback, and will design and implement a communication strategy. The communication strategy will advocate transparency and create awareness among all potential beneficiaries about the potential support the project will provide. The communication strategy will be developed and implemented at all levels to alert different audience about location-specific tailored activities. This action will be taken by the dedicated staff at national level in collaboration with the supportive staff at SCOs level. The citizen engagement will allow to gauge the capability of women and youth for developing a proposal and the type of support they need to develop business plans for financing by the project. The communication strategy implementation will be contracted out but the coordination work will be undertaken at national and state levels. The progress of citizen engagement in the project will be monitored and evaluated by using citizen engagement-specific indicators, included in the results framework.

Annex 1- Results Framework and Monitoring

NIGERIA Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project (APPEALS)

Project Development Objective: The objective of the Project is to enhance agricultural productivity of small and medium scale farmers and improve value addition along priority value chains in the Participating States.

PDO Level Results Indicators	Core	Unit of Measure	Baseline (December 2016)	Cumulative Target Values						Frequency	Data Source/ Methodology	Responsibility for Data Collection
				Year1	Year 2	Year 3	Year 4	Year 5	Year 6			
Increase in productivity of agricultural produce of the priority value chains by project-supported farmers	☐	Percent	N/A[11]	0	0	20	25	30	35	Annual	Surveys	SCO/NCO consolidates
Increase in processed output of the priority value chains by project beneficiaries (disaggregated by type of processing and gender)	☐	Percent	N/A[12]	0	0	10	20	30	40	Bi-Annual	Project progress reports	SCO/NCO consolidates
Number of beneficiaries supported by the project (of which women and youths%)	☒	Number	0	5000 (20%)	15000 (25%)	40000 (27%)	45000 (30%)	55000 (33%)	60000 (35%)	Bi-Annual	Project progress reports	SCO/NCO consolidates
Intermediate Results and Indicators(Component 1): Production and Productivity Enhancement												
Number of agri-business alliances and out-grower schemes	☐	Percent	0	10	50	150	180	210	210	Annual	Surveys	SCO/NCO consolidates

[11] Baseline captured with beneficiary's submission of proposals for each value chain. Table 5 provides indication on baseline and actuals for CADP as of January 30, 2017.
[12] Baseline captured with beneficiary's submission of proposals for each value chain.

supported												
Increase in agricultural produce by project-supported beneficiaries	☐	Percent	N/A[13]	0	20	25	35	40	50	Annual	Project progress reports	SCO/NCO consolidates
Number of farmers adopting improved technologies with project support (disaggregated by gender)	☒	Number	0	0	6000	7500	10000	25000	35,000	Annual	Surveys	PMU
Total number of technologies, demonstrated and disseminated under the project (of which 50% climate and/or nutrition sensitive)	☒	Number	69	70	75	80	85	95	100	Annual	Project progress reports	SCOs/NCO consolidates
Intermediate Results and Indicators(Component 2): Primary processing, Value Addition, Post-Harvest Management, and Women and Youth Empowerment												
Number of aggregation facilities constructed or rehabilitated with project support	☐	Number	0	0	10	50	75	90	90	Bi-Annual	Project progress reports	SCOs/NCO consolidates
Number of farmers reached with agricultural assets under the project (disaggregated by gender)	☒	Number	0	0	1000	5000	7000	8000	10000	Bi- Annual	Project progress reports	SCOs/NCO consolidates
Number of women and youth, empowered through grants, start-ups and mentorship	☐	Number	0	0	1000	3000	6000	8000	10000	Bi- Annual	Project progress reports	SCOs/NCO consolidates

[13] Baseline captured with beneficiary's submission of proposals for project support for each value chain. Table 4 provides indication on baseline and current levels for CADP as an illustration.

(disaggregated by gender)												
Intermediate Results and Indicators(Component 3): Infrastructure Support to Agri-business Clusters												
Km. of access/link roads constructed or rehabilitated in project intervention areas	☐	Number	0	0	0	0	20	60	80	Bi- Annual	Project progress reports	SCOs/NCO consolidates
Number of agri-business clusters, linked to infrastructure with project support	☐	Percent	0	0	10	15	20	30	50	Bi- Annual	Project progress reports	SCOs/NCO consolidates
Intermediate Results and Indicators(Component 4): Technical Assistance, Knowledge Management and Communication												
Number of federal and state partners (public and private) with improved skills contributing to project activities	☐	Number	0	100	300	500	550	580	600	Bi- Annual	Project progress reports	SCOs/NCO consolidates
Number of knowledge sharing products developed and disseminated	☐	Number	0	0	5	10	15	25	30	Annual	Project progress reports	SCO/NCO consolidates
Intermediate Results and Indicators(Component 5): Project Management and Coordination												
Percentage of social and environmental safeguards management plans, implemented in compliance with the PIM	☐	Percent	N/A	80	80	90	90	90	95	Bi- Annual	Annual safeguards audits	SCOs/NCO consolidates
Percentage of beneficiaries, satisfied with delivery (timely and quality) of project benefits			N/A		75%		75%		80%	Every 2 years	Beneficiary survey report	

Percentage of grievances registered, related to delivery of project benefits that are actually addressed	☐	Percent	N/A	50	60	75	85	90	100	Every 2 years	Beneficiary survey report	SCOs/NCO consolidates

Arrangement for Results Monitoring

1. **The monitoring and evaluation system (M&E):** The Project Management Unit (PMU) will have the overall responsibility for M&E and will work with relevant MDAs, government institutions and other projects to monitor and report on project indicators. The project will be staffed with a qualified M&E specialist who will manage the day-to-day activities on project M&E. A robust M&E system will be built within the NCO (PMU) to effectively monitor and evaluate the project. The M&E system will include an MIS that will provide clear guidance on data collection methodology, levels of M&E activities for each component and sub-component of the project, and responsibilities for data collection and reporting.

2. The M&E system comprises three specific parts: (i) the first part focuses on project implementation progress and meeting the KPI targets; (ii) the second part consists of the project impact evaluation, and (iii) the third part will be the beneficiary assessments. All parts will prominently feature gender disaggregation with a built-in gender tracker system, and will pay particular attention to the monitoring of environmental and social safeguards as well as management of project-related grievances.

3. Data will be collected by SCOs, under the supervision of the NCO's M&E specialist, in each participating state to measure the outcome based on intermediate output indicators. CADP MIS system will be the basis for the project M&E system, and will include data collection form and procedures as well as reporting templates. The project will collect both qualitative and quantitative data relevant to the project. Tracking of project results will be carried out through: (i) baseline data collected from CADP M&E system (see Table 4, Table 5, and **Error! Reference source not found.** which provide baseline information on selected indicators regarding CADP supported-beneficiaries), with additional surveys as necessary, and completed with baseline information from submissions as part of the grant processing procedures, (ii) annual survey/administrative data to regularly inform the key performance indicators, gauge dynamics of the agri-business linkages, and monitor implementation progress; and (iii) a final survey that will be conducted to assess achievement of project targets and inform the government project completion reports.

4. The project is required to prepare and submit to the Bank, a quarterly report of progress or achievement against project targets. The progress report will contain information, using variable data on progress by component, a populated result framework, data on disbursement and use of funds, and the implementation challenges faced. The progress report will be used for decision-making by the project.

5. The M&E system will be composed of three distinct, but complementary, M&E activities including:

i) <u>Performance monitoring</u>. The main objectives of performance monitoring would be to (a) facilitate implementation processes of the project at all levels, including performance on output indicators and land allocation, (b) assist in the decision-making process by managers, based on factual and verifiable data, and (c) analyze and highlight lessons learned at each level of project operations. This will serve as the backbone of information infrastructure to track key processes and activity indicators of all components, financed by the project. A well-designed and user-friendly MIS will be used to collect, organize, analyze, and manage input-output information of the project;

ii) Outcome assessment. The objective of outcome evaluation would be to establish the net contribution of the project to the intended target population as highlighted in the development objective. This will involve comparing the socio-economic outcomes of the interventions, using the baseline data for "project" and "control" areas/group.

iii) Knowledge management and learning exchange. This will help the PMU to capture, report and share lessons on what works and what does not work as the project is being implemented. The process monitoring will provide input into this component.

6. **Semi-annual and mid-term evaluation:** The Bank will conduct semi-annual supervision missions to evaluate implementation progress. These missions will participate in addressing problems and issues that affect progress of project implementation. Moreover, the Bank will carry out a mid-term evaluation focusing on (i) progress in achieving the development objectives, (ii) institutional arrangements, (iii) the M&E system, and; (iv) review of plans for the remaining life of the project. The mid-term review will be conducted no later than three years after the first disbursement of the project.

7. **End-of-project evaluation**: A final evaluation will be conducted towards the end of the project. The objective of the final evaluation will be to assess the achievement of the expected project results, and to draw lessons learned that can be applied to an expanded or similar program. In addition, an Implementation Completion Report will be prepared following the project impact evaluation.

8. **Impact evaluation:** Impact evaluation will be carried out to assess the effectiveness of the project in supporting youth and women in agriculture as well as to better understand the specific mechanisms through which the project affects youth and women. Given various constraints faced by women in Nigeria, a robust evaluation of the program is particularly valuable for addressing gender issues through the provision of evidence-based insights for policy makers to facilitate their decision making regarding women in agricultural businesses. The impact evaluation will also provide information on the relative cost-effectiveness of various interventions, associated with the project, and thereby ensure that the most effective and impactful aspects of the project are identified and up scaled.

9. Some of the specific research questions that this impact evaluation will address include: (i) Is the program successful in helping beneficiaries to start and grow successful and sustainable businesses? (ii) What is the impact of the business on outcomes such as household income and overall household welfare? (iii) How does the impact of the program differ across gender? (iv) What particular aspects of the program have the most impact on outcomes? and (v) How does the impact of the program vary across various demographics stratified by socio-economic status?

10. The impact evaluation will complement both the information gathered through regular M&E activities as well as another impact evaluation to be carried out towards the end of the program to assess overall impact of the program on beneficiaries. Every effort will be made to ensure that the evaluation is as rigorous as possible and is able to establish a causal link between the project and the key outcomes of interest. The evaluation will be designed in collaboration with stakeholders based in various states. Workshops will be held across the implementation sites in order to identify optimal locations for the evaluation and to invite inputs into the evaluation design.

General Note on the Project's Impact Evaluation

11. The evaluation activities planned under the project will provide thorough analysis of impact on key stakeholders. These activities will consist of an overall evaluation of the project, and a rigorous impact evaluation of the women and youth empowerment program under Component 2 of the project with gender disaggregated results.

12. The impact evaluation of the women and youth empowerment program of the project will be used to establish evidence of the effects of the program as well as to better understand the specific mechanisms that are driving the impact. As stated in an earlier paragraph, a robust evaluation of the program will be particularly valuable in resolving gender and employment issues, as the evaluation will provide evidence-based insights to facilitate decision making by the policy makers. Specifically, the evaluation will provide information on the differential effects of interventions on men and women, and will also be helpful in identifying which intervention is most effective in terms of the beneficiary gender. It will also collect and provide information on the relative cost-effectiveness of each intervention. The results from this process will eventually help in maximizing the impact of the project by ensuring optimal allocation of limited resources to the most effective interventions or a combination of interventions.

13. The proposed research will also contribute to the understanding of the effects of business grants and training on potential entrepreneurs, particularly women. Evidence from recent evaluation of the impact of training and grants on business outcomes has been mixed and highly context-specific. One common feature, however, seems to be that women appear to benefit considerably less than men, but the reason for this remains unclear so far. As such, the evaluation of the women and youth component of this project presents an opportunity to investigate the means through which intervention effects on beneficiaries are significant, and then to extend the evidence to the agri-business sector.

14. The research design will assess how the interventions affect outcomes by establishing a credible counter-factual through a randomized control design. The evaluation design will rely on random assignment of the beneficiaries to the treatment and control groups to ensure that treatment and control groups are as identical as possible so that the observed difference between the two groups can be genuinely attributed to the program. The evaluation aims to assess the impact of the program through a number of indicators including enterprise creation, production, sales and profits, and also household-level welfare indicators such as consumption, allowing for a gender disaggregated assessment.

15. In addition, the project will support the evaluation of its other components through data collection of outcomes for beneficiary households before and after implementation of the specific interventions/subprojects. Various studies will assess the outcomes and impact of the interventions through a variety of indicators reflecting: (i) poverty and household, (ii) productive change, (iii) adoption of adaptive practices and systems; and (iv) capacity and services. This research design may be less rigorous in establishing a causal link between program interventions and beneficiary outcomes. However, the findings from these evaluation studies may be able to establish that the program is having certain impact on the beneficiaries, depending on the proximity in time between the implementation of the program and the measurement of outcomes, and the logical and contextual elimination of other alternative explanations.

Table 4: Volume of Production by Value- chain at CADP Baseline and Current Levels

Value Chain	CADP Project's Baseline (2010)	Current Value (December 2016)
Oil Palm	100mt of fresh fruit bunches (ffb)	198mt of ffb
Cocoa	126.1mt	280mt
Pineapple	35mt	52.8mt
Cashew	12.4mt	15mt
Guava	7mt	53.3mt
Citrus	16.5mt	22.87mt
Mango	33mt	26.45mt
Poultry - Broiler	4.43mil birds	7.72million birds
Poultry - Eggs	4,866,559 crates	10,128,367 crates
Rice	3,356.9mt	13,245.65mt
Maize	11,547mt	54,420.31mt
Livestock -heads of cattle	1,642 heads	3,187 heads
Livestock - Dairy quantity of milk	197,460 liter/annum (average)	2,183,018ltrs
Aquaculture-Juveniles	6.85 million	18.113million
Aquaculture -Processed fish	50.8mt	398.72mt
Aquaculture -Table fish	1,278.2mt	6,473.94mt
Aquaculture-Extruded feed	5.0mt	25mt

Table 5: Productivity – Yields by Value chain at CADP Baseline and Current Levels

Value Chain	Baseline	Current Value
Oil Palm	5mt/ ha	8.5mt/ha
Cocoa	0.53mt/ha	0.84mt/ha
Pineapple	35.5mt/ha	41mt/ha
Guava	5mt/ha	7.5mt/ha
Citrus	3mt/a	5.5mt/ha
Mango	3mt/ha	5.35mt/ha
Poultry - Broiler	1.8kg/ bird	2.08kg/ bird
Poultry - Eggs	60eggs/100layers/day	75eggs/100 layers/day
Rice average	2.41mt/ha	3.33mt/ha
Maize average	2.41mt/ha	3.33mt/ha
Dairy – Quantity of milk per unit	1.21litrs/cow/day	2.56litrs/cow/day
Aquaculture -Juveniles	298million/ m3 pond	413.67/ m3 pond
Aquaculture -Processed fish	20,20kg/day	24.73kg/day
Aquaculture (Table fish)	68kg/m3 pond	122.5kg/m3 pond

Table 6: Volumes of sales – by Value chain at CADP Baseline and Current Levels

Value Chain	Baseline	Current Value
Oil Palm	840mt	1,759.93mt
Cocoa	608.36mt	2,152.26mt
Pineapple	30mt	263mt

Guava	28mt	42.5mt
Citrus	38mt	45.67mt
Poultry - Broiler	1,410,000 birds	3,390,043l birds
Poultry - Eggs	4,695,693 crates	9,654,601 crates
Rice	2,696.0mt	10,554.2mt
Maize	4,232.8mt	38,638.82mt
Dairy Est. Qty. of milk ltr/annum	185,490litres	947.494litres
Aquaculture-Juveniles	4.97million	11.24million
Aquaculture -Processed fish	50.77mt	443.59mt
Aquaculture -Table size fish	1,092mt	5,984.03mt

Annex 2 - Detailed Project Description

NIGERIA Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project (APPEALS)

1. Productivity of Nigerian agriculture is very low – almost half of the world's average. Although the country has a major comparative advantage in agricultural sector, the production system has not been developed towards major value addition or processing. As a result, Nigeria has remained a mainly staple crops producer country. The locomotive role that could have been played by the development of value addition alongside the enhancement of productivity, has, therefore, not been realized. Hence, the project concept is rightly embodied in transforming small subsistence farmers' production system (farming 1-5 ha) into a market-oriented agricultural undertaking, and in supporting middle size farmers (5-10 ha) through addressing the constraints that hinder their effective participation in value chains.

2. Nigeria's low agricultural productivity can be attributed to a number of factors: little and untimely access to inputs; a lack of seed funds for establishing agro-processing plants by producer cooperatives; lack of access to supportive infrastructure; challenging business environment; limited access to markets; low level of improved technology adoption; weak quality control mechanism, unable to deliver quality inputs to farmers; and low capacity at all levels. The project will address some of these challenges by: (i) improving access to seed capital; (ii) introducing new technologies and agricultural inputs; (iii) improving access to infrastructure by supporting investment; (iv) enhance the capacity of producer cooperatives through training and TA, especially for targeted women and youth groups; (v) facilitating market linkages through business alliance and out-growers schemes; and (vi) supporting on-farm value addition through targeting a limited number of value chains and linking farmers to the supply chain.

3. Overall, the project support to enhance the productivity will help the Federal Government in achieving its three priority goals, namely exploit export potential, improve food security, and enhance livelihoods. The type of value chains to be supported will be geared towards the achievement of these priority goals – in the immediate, short-run and medium-term. The project design principles also include the following:

Design principles

4. The project design embodies and reflects a number of elements that are of critical importance for the successful implementation of this type of operation. Project components, sub-components and activities reflect the elements that are necessary to achieve the PDO, and due consideration has been given to ease of implementation. The design relied heavily on informative lessons learned from the implementation of CADP and other similar Bank operations across different countries and regions, and most importantly from experience in the LAC region in Business Alliance (BA). Keeping these lessons in view, and cognizant of sectoral best practices and strategies in value chain development currently available (including current prevalent consensus14), the project design was anchored on five broad categories/elements.

[14] See for example, a 2013 study by the World Bank. 2013. Growing Africa: Unlocking the Potential of Agribusiness.

1. Design elements

(i) The project is financed through a federal credit and is, as such, a federal project that will benefit participating states. The Federal Government plans to use the proceeds of the credit as an instrument to implement the APP by supporting and complementing the state governments' efforts in enhancing agricultural productivity and value chain development for livelihood improvement. Access to the credit by the participating states will be based on meeting a set of criteria and signing a subsidiary implementation agreement with the Federal Government. The design does recognize that this approach would have implications for the implementation arrangements (see below).

(ii) *Selectivity*[15]: The design recognizes that national coverage of such type of operation distributes project resources thinly, and makes implementation support and monitoring difficult. Therefore, in the interest of achieving a meaningful sustainable impact, the project will operate in selected six states and the support will be limited to priority value chains as defined by the government's APP. An important consideration while making these selections will be that further scaling-up of the project gains and follow-up operations will be undertaken by the government using its own resources.

(iii) *Complementarity*: The design also reflects, as much as possible, complementarity of the value chains across states. For example, while deciding to support the maize value chain, it was recognized that the selection of maize will also support, by default, the development of feed for poultry and aquaculture thereby allowing the development of a specific value chain in one state complementing the development of a different value chain in another state.

(iv) *Integrated approach*: the development of a strong value chain assumes reliable supply of products (backward linkage) for further processing and packaging that will allow the creation of agro-business enterprises (forward linkage). Integration is inherent in the project's aim to provide investment to infrastructure development, and also support soft elements (training, capacity improvement, etc.), necessary for a viable value chain development. Thus, the project will support in the localities of participating states, all segments along the value chain, i.e. from farm level production to collection, storage, processing (value addition) until final marketing. Integration is also reflected in the consolidated package of support the project plans to deliver: The project will provide a package of support to beneficiary small and medium farmers and businesses along the value chains, comprising grants, TA and business development services. Necessary TA in business development will be provided to eligible producer organizations and out-growers that will mitigate risks for the buyers, and help build trust between partners in the business alliance and out-grower schemes. Further, the project design recognizes the importance of the private

[15] Selectivity is also one of the major recommendation made by the *Unlocking the Potential of Agribusiness*, 2013. Specifically, report recommended that: "Agribusiness programs initially need to focus carefully on a few cross-cutting interventions and/or on a few value chains and locations."

sector role by including their participation both in project activities (out-growers scheme and business alliance) and in project steering committees.

(v) *Multi-sectoral elements*: Recognizing the importance of connectivity to roads, power lines and water sources, especially for processing and cottage plants, the project design ensures that access to these services will not be a bottleneck in furthering value chain development and related agro-processing establishments.

(vi) *Shared priority*: The project design, informed by the priorities established by the Federal Government APP, ensures that the value chains identified by the project reflect the priorities of both the federal and the state governments. This is to ascertain the ownership of project activities by governments at all levels, and to facilitate cooperation and collaboration among all institutions in project implementation.

(vii) *Productivity and diversification towards high value cro*ps: Productivity enhancement and diversification towards high value crops are at the core of agricultural transformation. The project will support productivity enhancement by providing on-farm support while the diversification will be encouraged through demonstration plots, training in market opportunity, and links to value chains. Thus, the project will assist the government in achieving the goal of food security through increase in the production of exportable items and improved livelihoods.

2. Participation of states and resource allocation

(i) *Primary participating states:* Drawing lessons from World Bank portfolio in Nigeria, the project will support the five states that were supported under the CADP project (Cross River, Enugu, Kaduna, Kano and Lagos), and one additional state - Kogi that has benefited from the early design in the preparation of this project. This approach will allow the project to focus on a limited number of states at the beginning, and later scale up activities, based on lessons learned, by expanding a given value chain into an agricultural value chain corridor that transcends across state lines. The strategy to initially start with only six states is also rationalized by: (i) the need to start in those states which have both a reasonable level of knowledge of the selected value chains as well as key players; (ii) existence of key opportunities for development of the value chains and related value chain corridor; (iii) priority value chains with a dedicated budget line have already been selected by the state; (iv) work plan and budget have become operational along project templates and procedures; and (v) the state has a coordination office for project implementation along with vehicles and support services.

(ii) *Flexibility in resource allocation built-in as an incentive mechanism*: Financial resources allocation from the credit proceeds will be performance-based. While, in general, an initial allocation of US$10 million will be allocated to each of the participating states, additional allocation will depend on efficiency and timely implementation of project activities. The states that perform well and demonstrate rapid progress in project implementation, will be eligible for additional resource allocation to scale up their operations and/or complete the tasks initiated as the case may be.

(iii) *Expansion of project coverage*: Following successful launch of project activities, the project will initiate the processing of expanding the coverage to additional three states based on the following criteria: (a) State’s expression of interest to FMARD and World

Bank resources through the Federal Ministry of Finance; (b) selection of up to three value chains in keeping with APP's priorities; (c) selected value chains are prioritized by the state with clear budget line; (d) state plays an active role or has potential in unlocking major constraints for development of the value chains and related corridors across the board, with reasonable level of knowledge of the selected value chains and key players in the state; (e) preparation of work plan and budget along the project templates and procedures, and; (f) establishment of project oversight and implementation structures (SSC, STC and SCO) in the state, with adequate staffing, and fulfillment of fiduciary requirements (as stated in annex 3); and any additional incentive, including accommodation, vehicles, counterpart funding, to facilitate the execution of the project in the state. State will further sign a Subsidiary Agreement with FMF to receive an initial funding allocation.

(iv) *State cooperation in joint development of value chains*: Two or more states that show interest in jointly developing a value chain, will benefit from allocation of additional resources from the credit proceeds, in addition to the general allocation that will be made to all participating states.

3. Value chain selection principles

(i) *Priorities for both Federal and State Governments*: The Federal Government, through its APP, has listed the value chains that are a priority for the country. These priority value chains are selected due to their potential in contributing to the governments stated primary goals of: (i) food security and local production; (ii) potential for exports; and (iii) contribution to improvement of livelihoods, and speedy income generation including job creation along the value chains. For the state governments, however, priorities could be established through the budgetary allocation, made to the selected value chains, even without the project. More specifically, the selected value chains in each state should also be a priority for the Federal Government. States' priority value chains will be reflected by budgetary allocation independent of this project thereby remaining a priority for both the Federal and State Governments.

(ii) *Selectivity in value chain support*: Although the APP clearly defines the Federal Government priority value chains, yet, this project's preference for value chains is narrowed down to cereals (rice, maize and wheat), cassava, cocoa, cashew, poultry, aquaculture and horticulture (e.g. ginger, tomatoes and banana). The selected value chains have to contribute directly to at least two of the three goals of the government, i.e. food security and local production, exports, and livelihood improvement. Thus, the project will focus on a limited number of value chains out of the list identified by the Federal Government as part of APP. Further, states are not allowed to select more than three value chains for support by the project. The selectivity in value chains, coupled with limited states coverage, will provide the project with a focused approach that will ensure a smooth project start-up. A list of priority value chains in the participating states is given below.

Table 7: Indicative List of Priority Value Chains for the Initial Six States

NO.	STATE	VALUE CHAIN		
		FOOD SECURITY	EXPORT POTENTIAL	LIVELIHOOD
1	KOGI	Cassava	Cashew	Rice
2	ENUGU	Rice	Cashew	Poultry
3	LAGOS	Rice	Aquaculture	Poultry
4	CROSS RIVER	Rice	Cocoa	Poultry
5	KANO	Wheat/Rice	Tomatoes	Tomatoes
6	KADUNA	Maize	Ginger	Dairy

(iii) *Value Chain Investment Plans (VCIP)*: Before the project invests in any of the selected value chains, a VCIP will be developed that will provide an analysis of technical and commercial viability of the proposed investment in that priority value chain in the given state before a decision is made to proceed with the development of producer organizations and out-grower business plans. Key components of the VCIP would include projected cash-flow and returns, risk assessment, viability to meet the project's development objectives, and most importantly, incorporation of small and medium farmers into the value chain and supply clusters. To that end, specific business plans supporting business alliances and out-growers will be developed from the proposed investments under the VCIP.

4. Grants' operational mechanism

(i) Grant programs have been implemented in Nigeria with some success, including those in the CADP project. The Project Implementation Manual will be built on these experiences. The National Coordination Office will contract a third-party service provider to the benefit of SCOs, with experience in running such grant schemes, which will compile best practice procedures and develop templates for implementation of the grant scheme under the project. The use of standard procedures and templates will ensure that they are consistently applied across all project sites. In addition, establishing a close working relationship among the NCO, STC and SCO and the service providers will help build capacity for implementing such grant schemes at the national and state levels.

(ii) Grants as incentive in value chain development: As experiences across different countries and regions have demonstrated, grants play a critical role in enhancing agricultural productivity, developing value chains, enhancing value addition along the supply chain, and in improving product handling. Grants address the lack of initial capital to start small agro-processing businesses, open access to finance, reduce perceived risks faced by producers and, more importantly, create confidence in them to expand their farms or enterprises using the formal credit. The project will improve their chances of accessing the formal credit through its support for business alliance and out-growers schemes, business plan development, and the provision of necessary TA to beneficiaries in improving their skills. . Such support is expected to create a basis for the establishment of vibrant micro-enterprises along the value chains. The grants, coupled with the provision of TA, will help in removing or minimizing the financing constraint, which is one of the major obstacles for small farmers' cooperatives in accessing improved inputs and technologies, and in starting cottage processing plants.

(iii) Administration and operationalizing grant mechanism: The NCO will hire a business firm or a team of consultants to support both the NCO and SCOs in screening, assessing, evaluating and selecting proposals as well as sub-projects under the women and youth program, presented for grant funding. In addition, each SCO will establish an evaluation team, which will comprise fiduciary and resource management experts with agri-business experience to evaluate, monitor and report on each stage of the grant operation, that is, from acceptance to award and then to be followed by monitoring. The business firm will support NCO in exercising quality control of the selection process to ensure that only high quality proposals are selected for project support under the grants scheme. The STC will review and determine the soundness of the analyses either by signed approval of the selection or returning it for further evaluation, as the case may be. This approach will provide assurance of transparency and merit-based grant award process. The TA to be supported by the grant will also go through the same rigorous vetting and selection. Further, all reports by project execution entities (NCO and SCOs) will have a section to report on the progress and status of the grant mechanism including any issues identified and action taken to resolve them. The project's communication outreach will announce calls for the grants and will report on the grant progress and achievements throughout the project implementation period.

(iv) Business alliance: Business alliance between producer organizations and off-takers (aggregators, processors, traders and marketing companies) will provide incentives for smallholder farmers to adopt improved technologies and management practices that could help in enhancing productivity and production. Producer organizations will develop a business proposition that will define the TA needed to upgrade services, required support to members of producer organizations, and facilitate initiatives to strengthen their linkages with off-takers.

(v) Out-growers schemes: Agri-businesses, including agro-processors – both domestic and multi-national companies – are operating out-grower schemes, many of which provide inputs, technical support, and off-take opportunities for individual small and medium sized farmers and farmer organizations. These companies also open up new market opportunities and link farmers to commercial banks for finance. The project will work with off-takers to strengthen and/or scale up out-grower schemes, building on the existing business relationships and the trust that has been developed between out-grower farmers and off-takers in specific value chains.

5. Co-responsibility between federal and state for implementing project activities

5. Project implementation will involve both the federal and state governments. The project will be executed jointly by the NCO at the federal level and SCOs at the state level. This underlines the need to pay attention to the lessons learned from CADP and other projects. Informed by past experience, an assessment was made as to which activities are implemented in terms of relatively reasonable time and effectiveness, and at what level. Where the Federal Government is shown to have a comparative advantage or higher capacity (e.g. in procurement), the NCO is chosen as the preferred entity for coordinating such task. In areas where a state government proved its ability to effectively execute a set of activities, and also in consideration of cases where beneficiaries' consultation was needed, the state governments were the choice. In cases where activities are best implemented at states level but lack the necessary capacity, the project allows the contracting of third-party implementation support to help the state discharge their project execution duties.

6. Greenhouse gas accounting.

6. A preliminary assessment was undertaken following the methodology, adopted by the Bank for accounting greenhouse gas (GHG) emissions. The ex-ante analysis was conducted for representative crops that will be the basis for value chain development. Using the methodology, the net carbon balance quantified to estimate GHGs emitted or sequestered as a result of the project, was compared to the "without project" scenario. The results indicate that over the project duration of 20 years, the project constitutes a carbon sink of 692,438 tCO2-eq. The project provides a sink of 6 tCO2-eq per ha, equivalent to 0.3 tCO2-eq per ha per year. The main carbon sink source is primarily improved CSA practices for annual crops. The analysis is confined to maize, cassava, rice and aquaculture. However, the project will support the improvement and development of tree crops (such as cocoa and oil palm) that demonstrably have high sequestration impact. Accordingly, the above results show the minimum sink level that could accrue from the activities supported by this project.

Project components

7. **Component 1: Production and Productivity Enhancement (US$40m):** The aim of this component is to increase the total supply of agricultural products from the targeted value chains, with the purpose of ensuring consistent, reliable and timely stream of produce to the markets. Improving productivity and quality of farmers' produce will create the basis for improving farmers' participation in agri-business supply chains and in properly responding to market requirements. The project will provide support to small and medium-scale farmers and their cooperative societies through business alliances that will link farmers to off-takers and local processors. This will be achieved through structuring farmers/out-growers contracts that will benefit all participants, and facilitating adoption and use of improved climate-friendly and nutrition-sensitive agricultural practices and technologies by beneficiary farmers. A grant mechanism will be used as incentive to stimulate farmer's participation and remove or minimize the financing constraint, which has historically limited small farmers' access to improved inputs and technologies. It is expected that 35,000 farmers will adopt at least one of the 100 improved technologies[16] that will be disseminated with project support. The activities to be funded under

[16]Including 69 technologies already tested and disseminated under CADP, and technologies promoted under WAAPP and FADAMA projects.

this component include: (i) structuring of about 150 business alliances and 60 out-grower schemes, based on value chain investment plans and stakeholder mapping for each of the three priority value chains in each of the participating states; (ii) introducing improved production technologies; and (iii) support to farmers through grants mechanism for adoption of the improved technologies.

8. This component will also provide TA cross-cutting various sub-components. The TA will support: (i) delivery of extension services, provision of market information, specialized assistance on matters related to production, processing, grades and standards, environmental aspects, and market studies; capacity building to enhance functioning of producer associations; and (ii) demonstration farms or knowledge exchange to learn about new technologies, processes, or services. The TA in business development will also be provided with the aim to: (i) strengthen producers' business development capacities in management, accounting, business administration, and marketing skills; and (ii) consultancy services for brokering function, preparation of business plans, market development, including investment feasibility assessment and business development with financial institutions.

9. The component will be composed of the following three sub-components:

10. *Sub-component 1.1. Business alliances and out-grower scheme (US$10m):* This sub-component aims at addressing major constraints that hamper effective participation of small and medium commercial farmers in agri-business supply chains. Business alliances will be established through a contract arrangement to facilitate linkages between farmer/producer organizations, on one hand, and off-takers (buyers) and processors, on the other. Similarly, the project will support structuring of out-growers schemes for the purpose of increasing agricultural production through contracts between producers and buyers/off-takers. While the business alliance support will be provided to organized farmers through their cooperatives, the out-grower schemes could facilitate an individual farmer's entry into a contract with business entities at higher level of a given value chain. Compared with other modalities, working with cooperatives is the preferred modality under the project due to its several advantages to farmers such as an enhanced bargaining power, social inclusiveness, reduction in farmers' vulnerability, availability of a forum for participation of women and youth, and better chances for members to access inputs and services. Effective linkages of producer organizations along the forward segment of the value chains will translate into technical, financial and commercial partnerships between farmers (through their associations/cooperatives) and aggregators, processors and marketing outlets. Out-grower schemes, supported under the project, could focus on helping the medium-scale farmers, who have capacity to enhance production but require a dependable access to market via the value chains.

11. The sub-component will support strengthening of the institutional capacity of producer organizations and key stakeholders through sensitization, communication and outreach workshops, and training in best practices for business alliances and out-grower schemes. It is expected that at least 150 successful business alliances will be established between producers and off-takers, and at least 60 out-grower schemes will be supported and/or expanded for the priority value chains in the participating states. The following activities will be financed: (i) conducting or updating value chains' assessment at state level; mapping out of key players and identification of market opportunities; and identifying major constraints to development and preparation of VCIP; developing indicative work plan for technology demonstration under Sub-component 1.2; identification of specific off-takers/farmers for possible business alliances; and

preparation of a list of common goods to be supported under Components 2 and 3 for each of the three priority value chains in the participating states; (ii) support to structuring of specific business alliances between off-takers and out-growers, including registration of farmers enterprises/cooperative societies, and preparation of business plans for further support under the grants mechanism (Sub-component 1.2); and (iii) support to beneficiary producer organizations to strengthen their governance arrangements, capacity to form alliances, and for preparation and implementation of business plans by services providers, project subject-matter specialists and specialized consultants, as needed.

12. *Sub-component 1.2. Support to technology demonstration (US$5m)*: This sub-component aims at increasing beneficiaries' access to and adoption of improved agricultural inputs such as improved seeds, seedlings, fish seed, livestock, poultry, fertilizer, agro-chemicals, agricultural equipment and farm machinery. The expected outcomes from the sub-component is the introduction and wide dissemination of at least 2 transformational technologies (with a total of 90, including 69 screened technologies being disseminated under CADP), with at least 30 percent of project-supported beneficiaries adopting one of these technologies. Activities include: (i) screening, acquisition, and demonstration of scalable technologies with potential for rapid enhancement in productivity as well as total production in the intervention areas. This activity will be implemented in partnership with relevant R&D institutions; and (ii) will support the exposure of such technologies to the farmers through various extension approaches, e.g. farmers' field days, exchange visits, farmers field schools, study tours, mass media and ICT-based outreach channels, information and knowledge-sharing events like exhibitions, workshops, conferences and seminars.

13. *Sub-component 1.3: Support to technology adoption (US$25m):* This sub-component will facilitate the adoption of improved technologies by farmers in their farm plots. The project will finance the measures towards adoption of these technologies on farms not exceeding 2 ha in size, depending on the value chain type and the associated intensive support required. The technologies for adoption include both agricultural inputs (e.g. improved seed) and equipment, and will be financed through grants.

14. The financing instrument for access to improved technologies under the business alliance investments and out-grower schemes will be through matching grants with in-kind contribution from beneficiaries, for example, land preparation, complementary inputs, and labor. Scope and nature of the contribution by value chain to be spelled out in the Project Implementation Manual. The grants will finance productive investments consisting of one or more of the following (i) production inputs for producers such as seed, fertilizer, chemicals, animal feed, veterinary supplies, land preparation; (ii) farm mechanization equipment (including those for service hire) such as tractors and associated equipment (seeders, plough, threshers, dryers, etc.).

Table 8: Eligibility Criteria for Benefiting from Project Intervention Opportunities

<table>
<tr><th rowspan="2">Characteristics</th><th colspan="3">Types of Beneficiaries</th></tr>
<tr><th>Small Farmers' Groups /Cooperative Societies</th><th>Medium Farmers and Entrepreneurs</th><th>Women/Youth</th></tr>
<tr><td>Beneficiary Eligibility Criteria</td><td colspan="2">▪ having been engaged in farming business for at least three years;
▪ located in participating state and involved in one or more of the selected value chains in the state for 3 years ;
▪ belonging to farmers/producers organization for at least one year;
▪ has not been convicted for fraudulent activities;</td><td>▪ Women and men between 18 and 40 years at the time of submission, interested in any of the eligible value chains:
○ Graduated from universities</td></tr>
</table>

<table>
<tr>
<td rowspan="2"></td>
<td colspan="2">▪ documenting availability of resources (in kind or cash) from own contribution to matching grants for the adoption of technologies and/or land development, as shown in a costed business plan.</td>
<td rowspan="2">and colleges of agriculture, or
o Minimum of secondary school leaving certificate, and being in business on selected value chains for at least 18 months at the time of submission; or
o Registered company or cooperative society with at least 3 members who have met the above criteria, and established with no less than 6 months of age at the time of submission</td>
</tr>
<tr>
<td>▪ Associations or cooperatives of farmers, established at least one year prior to requesting project support
▪ Registered Commodity Interest Groups of farmers and/or processors, and/or marketers of eligible value chains in the state, and at least one year old

▪ Minimum commercially viable, and maximum size of assets for individual smallholders determined for each value chain in the PIM, i.e.
o Rice, maize: 2 to 10 ha
o Poultry: 1,100 – 5,000 birds</td>
<td>▪ Registered cooperative societies with own productive assets of a minimum size as determined in the PIM (i.e. 100 ha of farming land, 50,000 birds, etc.)
▪ Registered companies operating in any of the eligible 3 value chains in the state
▪ Minimum size for smallholder, as determined by value chain/segment and for each state (details in the revised PIM)
▪ Individual medium farms with more than 10 ha and less than 50 ha, employing a minimum of 5 workers</td>
</tr>
<tr>
<td rowspan="2">Eligible Activities under the Grant Mechanisms</td>
<td colspan="2">Matching Grants for Technology Adoption</td>
<td>Start-up Grants for Women/Youth</td>
</tr>
<tr>
<td>▪ Support to preparation of detailed business plans following pre-selection
▪ Implementation of business plans, including:
o Adoption and use of improved production and post- production technologies and practices (high productivity, climate and/or nutrition sensitive technologies and/or practices, such as seeds and agricultural inputs, agro-forestry, farm equipment, post-harvest equipment, etc.)
o Capacity building, including training, knowledge exchange and advisory services, including extension services in relation to the adoption of new technologies/practices
o Business management support in relation to the adoption of new technologies/practices</td>
<td>▪ Support to preparation of detailed business plans following pre-selection
▪ Implementation of business plans, including:
o Adoption and use improved post production technologies
o Demonstration and adoption
o Capacity building, including training, knowledge exchange and advisory services, including extension services in relation with the adoption of
▪ Business management support in relation to the adoption of new technologies/practices</td>
<td>▪ Capacity building on business development and management, and technical competencies, including on the job training and internship
▪ Support to implementation of the business/investment plans including infrastructures and equipment (production, processing, marketing, technical and business development services along the VC) ; improved animal feed and health inputs; and training in compliance with SPS norms :
▪ Coaching and mentorship
▪ Linking up to financial, technical and commercial partners</td>
</tr>
<tr>
<td>Eligible Activities under other Project Activities as Part of the Value Chain Investment Plans</td>
<td>▪ Introduction and demonstration of improved production and post-harvest technologies and practices
▪ Support to establishing business alliance or out-grower schemes with off-takers
▪ Technical assistance in the areas of business management, skill development , development of strategies for business expansion</td>
<td>▪ Introduction and demonstration of improved production, processing and marketing technologies and practices
▪ Support to establishing business alliance or out-grower schemes with farmers' groups or commercial farmers
▪ Technical assistance in the areas of business management, skill development , development of</td>
<td>▪ Introduction and demonstration of improved production, processing and marketing technologies and practices
▪ Support to establishing business alliance or out-grower schemes with off-takers
▪ Technical assistance in the areas of business management, skill development , development of strategies for business expansion</td>
</tr>
</table>

	▪ Linking up to financial, technical and commercial partners ▪ Establishment of aggregations centers, connecting infrastructure if in production clusters	strategies for business expansion ▪ Linking up to financial, technical and commercial partners ▪ Connecting infrastructure if in processing clusters	▪ Linking up to financial, technical and commercial partners. ▪ Aggregation centers, and connecting infrastructure if in production or processing clusters
Proposal Assessment Criteria	▪ Number of members benefiting ▪ value addition and profitability ▪ Technical soundness ▪ Group cohesion ▪ Demonstration of availability of other elements of the business plan as beneficiary's own contribution (complementary inputs, labor, plots preparation, maintenance and operating cost, etc.,) ▪ Positive or minimal Environmental and social impacts ▪ No litigation ▪ Gender content	▪ Contribution to the value chain consolidation ▪ Inclusion of out-grower/ alliance with farmers and other actors in the value chain, employment content, gender content ▪ Profitability ▪ Technical soundness ▪ Environmentally and socially friendly ▪ Business continuity, expansion or complementarity ▪ No default with banks of financing partners ▪ No litigation ▪ No overlapping sources of funding, but complementarity ▪ Demonstration of availability of other elements of the business plan as beneficiary's own contribution (complementary inputs, labor, plots preparation, maintenance and operating cost etc.)	▪ Number of members benefiting ▪ Value addition and profitability ▪ Technical soundness ▪ Group cohesion ▪ Demonstration of availability of minimum asset for the implementation of the business plan (example: secure land plot) ▪ Positive or minimal environmental and social impact ▪ No litigation
Examples of Technologies and Practices	▪ High yielding, disease resistant crop varieties (cassava, rice) ▪ High yielding poultry/fish breeds ▪ Improved farming systems, e.g. cereals/legumes rotation, strip cropping ▪ Cocoa solar dryer ▪ Improved fish/poultry feed ▪ Drought/ heat resistant wheat varieties ▪ Energy saving fish smoking kiln ▪ Aflatoxin control input (maize)	▪ Poultry: battery cage nipple fitted technology ▪ Energy saving cashew deshelling machine ▪ Agricultural processing and sorting machine ▪ Produce packaging techniques/technologies	▪ In addition, all activities for farmers and processors, marketers listed, ancillary activities contributing to the value chains are also eligible, including but not limited to: o Services to farmers (mechanization hired services, input dealership, advisory and accounting services) o Haulage and logistics
Funding Level	▪ Up to US$ 50,000 per group with US$ 1,000 on average per group member for inputs, and $100,000 for and over a period of two cropping cycles; ▪ 100% IDA finding of targeted technology as part of the beneficiary approved business plan	▪ US$50,000 maximum ▪ Critical in meeting the business plan objective, with secure operating and maintenance cost; ▪ In kind-contribution in terms of factoring contributing to optimizing the use of the project support (energy, labor, hosting facility, etc.)	▪ US$10,000 on average per individuals capped at US$100,000 for registered group/ (/cooperative society) ▪ Aggregation centers, funded under Component 2
Approval Process	▪ Pre-identification by SCO for technical assistance as part of the VCIP ▪ Draft proposals, prepared by beneficiaries with SCO support following project templates ▪ Draft proposals review for selection by State Selection Committee, ▪ Selected proposals developed by beneficiaries with project	▪ Pre-identification by SCO for technical assistance as part of the VCIP ▪ Draft proposals prepared by beneficiaries, following project templates ▪ Draft proposals reviewed for selection by State Selection Committee, ▪ Selected proposals, developed by beneficiaries with project	▪ Draft proposals following SCO call for expression of interest ▪ Pre-selection of candidates, based on a number established for each year by SCO committee, including representatives of NCO, and relevant state department (youth and women affairs); ▪ NCO validation and submission to WB for no objection

	technical assistance, and submitted NCO for validation (with technical assistance support) and transmittal to WB for no objection	technical assistance, and submitted NCO for validation (with technical assistance support) and transmittal to WB for no objection	▪ Training and business plan competition , and final selection of candidates for funding ▪ WB no objection.

15. **Component 2: Primary Processing and Value Addition, Post-Harvest Management, Women and Youth Empowerment, (US$92m):** Women play an important role in the Nigerian agricultural sector, representing more than 60 percent of the rural workforce[17]. However, in crop production, on average, they appear to be less productive than men. Oseni et al. (2014) showed that plots managed by women in northern Nigeria remain significantly less productive even after accounting for observable differences such as plot size, labor inputs and fertilizer use. Although this unexplained gap is not significant in the southern region -- differences in productivity exist there as well but are shown to be due to differences in the use of herbicides and farm labor. The current Nigerian administration has, therefore, included support to women and youth in the agricultural sector as one of the priorities in its Agriculture Promotion Policy. The administration aims at expanding "wealth creation opportunities for youth and women" in agriculture, and the strategy paper emphasizes the "need to maximize contributions of women and youth to agricultural production and elimination of discriminatory practices in the employment of women and youth in the sector" (Federal Ministry of Agriculture and Rural Development, 2016).The component will address post-harvest losses, facilitate consolidation of produce and primary processing by small and medium-scale enterprises of women and young farmers' cooperative societies in project intervention areas.

16. The component will support acquisition of common goods for cooperatives, producer organizations, and women and youth, through construction/rehabilitation of aggregation facilities, procurement and installation of equipment for cottage processing, storage and quality assurance facilities, and the provision of business development services (TA in business management, marketing, access to market information and financial services). The main expected outcomes under this component include: (i) increase in volumes of processed product by project beneficiaries, or volumes of quality product sold to off-takers for further processing; (ii) 10,000 women and youth directly benefiting from the grant mechanism; and (iii) another 10,000 cooperative and group members benefiting from the assets provided for the 90 aggregation centers. This component is sub-divided into the following three sub-components:

17. Sub-component *2.1. Women and youth empowerment (US$72m):* This sub-component will address major constraints to market entry faced by potential youth and women agri-business entrepreneurs, thereby providing business opportunities as well as creating job opportunities. The beneficiaries under this sub-component will be women and youth who will be involved along the core segment of the value chains (production, processing and marketing) and ancillary businesses (agro-dealership, haulage, packaging, business management, etc.).

18. The sub-component is estimated to benefit directly and indirectly around 10,000 beneficiaries between 18 and 40 years old, selected through a competitive and transparent process, of which at least 50 percent will be girls and women. The major activities to be financed under this sub-component will include: (i) business, technical and life skill training, delivered by experienced training institutions; (ii) support to business planning and facilitation of business name registration and certification; (iii) start-up grant to establish a commercially viable

[17]British Council Nigeria, 2012.

business; and (iv) mentorship to provide the beneficiaries with continued support from established agri-business entrepreneurs.

19. *Sub-component 2.2. Commodity aggregation and cottage processing (US$15m):* This sub-component aims at providing simple design, standard warehouse and produce cleaning; improve handling to reduce post-harvest losses/wastages; and primary processing facilities in the participating states as part of the implementation of the business alliances. It is expected that improved storage systems will contribute to smoothing of the prices beneficiaries receive, and enhance availability of products for off-takers throughout the season. The sub-component will finance: (i) construction/rehabilitation of simple design warehouse/storage and consolidation system at farm gate, with modern management such as warehouse receipt system where applicable; (ii) providing organizational management training for outreach programs; and (iii) procurement of standard equipment such as cleaning, sorting, bagging, packaging, quality control machines, weight bridge installation, and haulage system. The infrastructure and equipment will be provided by the project, based on a critical number of business alliances, established in the production cluster with 100 percent funding by the project for the construction and equipment, and 100 percent coverage of the maintenance and operating costs by beneficiaries. Such investment will be supported once the beneficiaries put in place an arrangement for O&M, for which necessary TA will be provided by the project under sub-component 2.3.

20. *Sub-component 2.3. Market development and linkage to business services (US$5m):* This sub-component will provide the soft-support for improvement of access to market and services, and will contribute to reducing commodity price volatility and seasonal variation. The project will finance the following: (i) feasibility studies/TA and equipment for market information platforms to be deployed in participating states; (ii) development of guidelines, procedures and training modules for O&M arrangements and a functional grain exchange platform around the aggregation centers; and (iii) improvement in the provision and quality of information to be delivered to farmers, and facilitate linkages to financial institutions and other business services.

Table 9: APPEALS - Small and Medium Processing and Aggregation Centers

Characteristics	**Staples**	**Tree Crop Products and Horticulture**	**Animal Products**
Value chains	▪ Cereals: Maize, rice, wheat ▪ Cassava ▪ Legumes: soybeans, cowpeas, and groundnuts ▪ Animal feed (cattle, poultry, fisheries)	▪ Cocoa ▪ Cashew ▪ Vegetables (tomatoes, ginger, onion, etc.)	▪ Poultry ▪ Fisheries
Activities with potential interest for business alliance/out-grower schemes	▪ Aggregation, warehousing and processing cereals to food and beverage, and animal feed ▪ Aggregation and processing of roots and tuber (cassava, yam, ,etc.) to food (flour, starch, beverage, industrial inputs, etc.), animal feed, and other edible and non-food products (e.g. pharmaceuticals, cosmetics) ▪ Processing of locally sourced, primarily processed any of the	▪ Aggregation, drying, sorting and grading cocoa beans for export or domestic processing; ▪ Aggregation, and de-shelling of cashew kernels, and/or soring, deepening a roasting and packaging of cashew nuts for exports and domestic markets ▪ Aggregation and extraction of palm kernel, refining of oil palm oil to edible and non-edible products;	▪ Fish processing centers: smoking, canning, drying, and packaging for exports or domestic markets ▪ Poultry estates ▪ Poultry processing center

	above products or related by-products	▪ Processing of locally sourced any of the above products or related by-products as intermediate inputs	
Business size	Business size: ▪ up to 5,000mt of paddy, or maize per year ▪ Up to 5,000mt of fresh cassava	Business size: ▪ 500mt to 1,000mt of cocoa beans or cashew kernels	Business size: ▪ 100- 500 mt tons of fresh or smoked fish ▪ 1000 mt of eggs or poultry meat ▪ Being in the business for at least 5 years

21. **Component 3. Infrastructure Support to Agri-business Clusters (US$40m):** This component aims at strengthening capacity and improving physical environment for agro-industrial processing units in defined agri-business clusters with significant potential for agro-processing and greater inclusion of small to medium-size farmers into the agri-business supply chains through the business alliances. It will remove constraints against efficient supply of raw materials and competitive agro-processing through the provision of last-mile connection to utility infrastructure, such as energy, road and water access networks. The component will provide such support in alignment with the federal and state governments' policies and programs.

22. The component will finance: (i) design and construction of infrastructure such as access roads, jetties and other water transport infrastructure linkage to processing units and aggregation centers; and (ii) facilities aimed at connecting processing clusters to facilitate small and medium farmers' inclusion in agri-business supply chain. The project will not be financing any dams or extracting water from existing dams. However, if there is a need for construction of small dams, kikes and weirs, a qualified engineer will be hired to supervise the construction to ensure compliance with the World Bank Operational Policies 4.37 on Safety of Dams. To ensure that the infrastructure works that link production and processing centers to each other and to markets, are of limited size and investment, due attention will be paid in the selection of sites for processing, aggregation, and other centers. Wherever feasible, the sites that require a limited work to complete, the link will be the preferred choice. Expected results will include: roads constructed or rehabilitated in project intervention areas (in km), and the number of agri-business clusters, linked to infrastructure. This component is composed of two sub-components:

23. *Sub-component 3.1. Infrastructure support to production (US$25m)*: The purpose of this sub-component is to rehabilitate existing access/link roads and construct new ones, where needed in core production zones. The sub-component will provide access roads and water transport facilities as well as water for production activities. The sub-component will finance the following: (i) design and construction of access roads; (ii) rehabilitation of existing access/link roads to facilitate production and linkage to the processing units and aggregation centers; (iii) provision of jetties and other water transport facilities/goods; and (iv) provision of water for production activities when small works require a last-mile connection.

24. *Sub-component 3.2. Infrastructure support to processing and value addition (US$15m):* The purpose of this sub-component is to facilitate efficient and competitive processing and value addition in the processing zones and agri-business clusters. Main beneficiaries will be cooperatives, but there will be a limited possibility of extending such support to small and medium enterprises. It will involve the provision of both conventional/alternative energy as well

as water for use at the processing sites. When the need can be met with reasonable cost, renewable energy, such as construction of solar panels, will be given priority. The following activities will be financed: (i) provision of energy for electricity, heating, drying and cold house/refrigeration; (ii) provision of water with small, low-cost, last-mile connection; transmission and gas pipelines; and (iii) provision of roads, connecting to main arteries.

25. **Component 4. Technical Assistance, Knowledge Management and Communication (US$10.5m)**.The aim of this component is to build capacity of project staff and partners in the relevant areas of value chains development, harness knowledge acquired and generated under the project, facilitate exchanges of experience, build capacity of stakeholders participating in the implementation of the project, and support FMARD on strategic and technical studies for scaling up agricultural productivity and processing programs in addition to capacity improvement. Expected outputs include: number of federal and state partners (public and private) with improved skills and facilities that will support the assessment and enforcement of quality in agricultural inputs; an improved knowledge base for developing, strengthening and scaling up of value chains; improved citizens' awareness and engagement; models and templates developed that are relevant to project implementation, and will further capitalize on project achievements; analytical works and feasibility studies contributing to advancing the implementation of the government strategies and improved capacity of partnering institutions. This component will have three sub-components.

26. *Sub-component 4.1. Capacity building and support to collaborating institutions (US$5m)*:The purpose of this sub-component is to enhance project implementation capability through capacity building of the project related staff through local and overseas training programs, workshops, seminars, short courses, peer learning and on-the job training. The sub-component will finance: (i) capacity assessment; (ii) preparation and implementation of capacity building and training plans for the project staff and the staff from relevant partnering government institutions, aiming at strengthening the capacity of both project staff and beneficiaries' skills in value chains development, including but not limited to contract farming through training of stakeholders, supply chain management, business planning, etc.; (iii) experience sharing including through twinning arrangements, communities of practice and peer learning networks, inclusion of local solutions in training offerings, study tours to locations of best practices within and outside the country based on development of institutional capacities for more systematic knowledge management and organizational learning; (iv) on-the-job training for young professionals, seconded to project implementation units and key project partners including farmers' cooperatives and agri-business companies involved in the project supported business alliances; and (v) capacity improvement of collaborating institutions both at federal and state levels.

27. *Sub-component 4.2. Technical assistance and knowledge management (US$4m)*: This sub-component's purpose is to generate knowledge from project activities, and facilitate knowledge acquisition and experience sharing from within the country and across the world. The knowledge generated is expected to enhance effectiveness in project implementation and support the scaling up of project activities by leveraging on federal and state government programs in agricultural productivity improvement and processing.

28. The sub-component will finance the following activities: (i) TA for development of value chains' management tool kits including templates for value chains' competitiveness and profitability analysis, business planning, mapping and assessment of business service providers,

development of business model templates, etc.; development of a central knowledge repository fed by inputs from local communities, agri-business entities, extension workers, state ministries, development partners and FMARD, and validated by expert committees at federal and state levels. Systematic knowledge sharing, both vertically as well as horizontally between states, based on sound and results-oriented activities and program designs with a view to replicating effective local solutions across communities and states; (ii) capitalization of knowledge, generated under the project, and strategic studies relevant to the advancement of value chains development and commercial agriculture, and to fill identified knowledge gaps including but not limited to value chains competitiveness updates, technology screening and assessments, etc.; (iii) feasibility studies for preparing subsequent projects and coalition building among key stakeholders for larger scale value chains development*;* and (iv) support to FMARD and other relevant agencies in conducting assessment of government policies and capacity strengthening on quality control of agro-inputs such as seeds, fertilizer and agro-chemicals to address issues of adulteration; strengthening capacities of government agencies (Seed Council, Fertilizer Department, Quarantine Division, etc.) in implementing policy and regulations on inputs quality assurance and facilitation of beneficiaries' access to accredited service providers such as agro- dealers/suppliers through improved availability of information. The TA under this sub-component will provide implementation support grant through a specialized firm in business development service to be contracted by the NCO. The grant implementation will also benefit from TA to be received through partnership with credible institutions such as research centers, higher level learning institutions and NGOs.

29. *<u>Sub-component 4.3. Communication and outreach (US$1.5m):</u>* This sub-component will support the development of a comprehensive communication strategy that will raise awareness about project objectives, mobilize stakeholders' support and disseminate project results, and outcomes and experiences arising from the implementation of the project. The component will finance the following activities: (i) development and implementation of a communication strategy, including activities that promote effective, informed and transparent dialogue among all stakeholders within and around project locations; (ii) development of user-friendly communication and reporting tools, including but not limited to production of documentaries and multimedia products on project achievements and lessons learnt, on value chain development and cooperatives' participation, establishment of web-based knowledge and management information system; and (iii) facilitating access to project information by the public, enhancing citizens' engagement, and informing about the establishment of a grievance redress mechanism that will prevent and, when unavoidable, handle beneficiaries' complaints under sub-component 5.3.

30. The NCO will hire a qualified consulting firm with proven expertise in communication and outreach to supplement existing capacities in the project implementation units at federal and state levels. The implementation of the communication strategy will benefit from partnership with relevant public and private institutions, including training institutions, research centers, universities and NGOs (see Appendix to this Annex for indicative list of project partners in various areas).

31. **Component 5. Project Management and Coordination (US$17.5m):** The aim of this component is to ensure effective management and coordination of the project for proper achievement of project-related goals and mainly to ensure successful achievement of the PDO.

This component will carry out technical, financial, administrative, and M&E activities during the entire project period.

32. This component will be implemented through three sub-components:

33. *__Sub-component 5.1. Project management and coordination (US$10m):__* This sub-component aims at ensuring effective management and documentation of project-related activities covering project management, and administrative and financial management. The component will finance (i) salaries of key project staff competitively selected and fully dedicated to project activities at federal and state levels; (ii) operating costs for day to day management of project activities, including travel cost for project staff, office supplies, utility services, rental and maintenance of office building, equipment and vehicles; and (iii) procurement of works and equipment for upgrading coordination offices, goods (including vehicles, computers, printers, etc.). Counterpart funding will be limited to payment of allowances for civil servants, fully dedicated to the project.

34. *__Sub-component 5.2. Monitoring and evaluation (US$5m):__*This sub-component will support project M&E to document and report on project outputs, outcomes and impact as well as track project activities through the use of GPS/MIS/Web-based platform. This sub-component will finance the following: (i) monitoring of project implementation activities through data collection, maintenance (data bank) and analysis; periodic review of project performance, including gender tracking; (ii) evaluation of project performance across all components and sub-components in collaboration with other relevant agencies/institutions; survey and studies including beneficiary assessment and updating of project's financial and economic analysis to feed into the project mid-term evaluation and completion reports; and (iii) project's impact evaluation (surveys, data analysis, and reporting). The M&E outputs will feed into the communication strategies and tools funded under Component 4.

35. *__Sub-component 5.3. Environmental and social safeguards, and grievance redress mechanism (US$2.5m)__*: The purpose of this sub-component is to prevent and mitigate undue harm to the project beneficiaries and the environment in the participating states through the preparation and implementation of environmental and social safeguards and instruments, as well as the establishment of seamless GRM. This sub-component will finance the following: (i) consultant services, operating costs and workshops related to preparation, implementation and monitoring of safeguard instruments (i.e. Social Impact Assessments, Resettlement Action Plans, Environmental Management Plans, etc.), and (ii) consulting services and operating cost for investigating, consulting and providing solutions to grievances on project activities.

Appendix 1 to Annex 2: COLLABORATION AND PARTNERSHIP MATRIX

SN	PROJECT COMPONENT	SUB-COMPONENT	COLLABORATING INSTITUTIONS	AREAS OF COLLABORATION	OUTCOME	DELIVERABLES	TIME LINE	REMARKS
1	**Production and Productivity Enhancement**	*1.1. Business Alliance and Out-grower scheme*	ADPs, NGOs, Private sector, National Bureau of Statistics (NBS)	Extension/Advisory, support to business development, data base development	Increase in productivity, and efficiency in business alliance;-improvement in farm records	Contract/out-growers strategy; development and maintenance of data base of contract farmers and out growers; organization of strategies for business alliance and supervision	Twice a year (every six months)	
		1.2. and 1.3 - *Technology demonstration, dissemination and adoption* *Note:* priority value chains are maize, rice, cassava, livestock, fisheries	NASC, Federal Institute for Industrial Research-Oshodi (FIIRO), National center for Agricultural mechanization (NCAM), FMARD, NGOs, Private Extension Service providers, Leather Institute of Nigeria; National Office for Technology Acquisition and Promotion (NOTAP),	Technology acquisition; demonstrations and extension services delivery	Increase in: technology adoption, productivity, total production, value addition, volume of sales and farmers' income	Catalogue of relevant on-shelf technologies; report of new research that addresses beneficiaries' new challenges	As needed during project implementation (twice a year)	To be demand driven by beneficiaries
		2.1. Support to on-On farm aggregation; cleaning and storage of agricultural produce	National Agricultural Extension and Research Liaison Services (NAERLS) FIIRO, NCAM National Cereals research Institute (NCRI) International Institute for Tropical Agriculture (IITA)	On-farm aggregation; provision of simple cleaning facilities; provision of modern storage facilities/technologies; capacity building	Reduction in post-harvest losses; improvement in shelf life and quality of agricultural products; increase in export	Intensive research and study tours; organization of exhibitions and trade fairs; excursions; workshops and seminars	Twice a year	

					potential; encouragement of best practices; reduction in imports			
2	**Post-Harvest Management, Primary Processing and Value Addition**	2.2. *Support to women and youth empowerment*	Federal Ministry of Women Affairs (FMWA), and Trade and Investment (FMTI), SONGHAI FARM, NGOs, Agricultural Development Programs (ADPs), Small and Medium Enterprise Development Agency of Nigeria (SMEDAN)	Capacity building; group mobilization; exhibitions/trade fairs; workshops and seminars	Enhancement of processing of value chains (value addition); poverty reduction; employment generation	Mobilization of youth and women into groups; documentaries of women and youth activities; monitoring and evaluation of women and youth activities	Quarterly	
		2.3 Market development and linkages to business services	FMITI, NEXIS, Nigeria Export Promotion Council (NEPC), Nigeria Investment promotion commission (NIPC), Nigeria Commodity Exchange Commission (NCX), National Agency for Food and Drug Administration and Control NAFDAC, Standard Organization of Nigeria (SON), Corporate Affairs Commission (CAC)	Export: improved packaging to meet international standards; quality control and assurance; products trade mark and certification; showcasing and market exhibition; business name registration	Increase in volume of sales; increase in number of business names established and registered; Enhancement of export and quality of products	Registration of businesses; products certification; quality assurance and standardization	Twice a year	Demand-driven
		2.4. Market development and linkage to business services						
		3.1. Infrastructure support to production	RAMP, Federal Ministry of Power, Works and Housing (FMPWH),	Construction/rehabilitation of farms access roads; maintenance of infrastructure;	Improved farm road network.	Provision of transformers and connection of	During project implementation	With due reference to available funds

			Power Holding Company of Nigeria (PHCN), Federal Department of Rural Development (FDRD), Federal Ministry of Water Resources (FMWR), Federal Road Maintenance Agency (FERMA)	connection of farm clusters to national grids; provision of portable water	Provision of energy. Portable water availability.	clusters to national grid. Provision of boreholes and water purification		
3	**Infrastructure Support to Agri-business Clusters**	3.2.Infrastructure support to processing and value addition	RAMP, FMPWH, PHCN, FDRD, FMWR, FERMA	Construction/rehabilitation of farms access roads; maintenance of infrastructure; connection of farm clusters to national grids; provision of water	Improved farm road network;. provision of energy;. water availability	Provision of transformers and connection of clusters to national grid; provision of boreholes and water purification	During project implementation	With due reference to available funds
		4.1 . Capacity Building and support to collaborating institutions	Relevant agricultural research institutions; project beneficiaries	Documentation of relevant technologies (both on-shelf and newly required technologies). Sensitization of beneficiaries in available technologies. Periodic monitoring of beneficiaries activities/project implementation	Increase in new technologies awareness and their adoption	Printing of publications; increase in media publicity, monitoring; procurement of vehicles	Every six months during the project life span	Actions from this sub-component can contribute to policy formulation
		4.2. Technical Assistance and Knowledge Management	Federal Ministry of Information and Communication Technology (FMIC), broadcasting corporations, media, communication service providers	Advertisement of project activities; market information dissemination; sensitization and awareness creation	Awareness creation in general public; buy-in interest of public in the project leading to increase in productivity	Payment for airtime and slots; jingles; publication of newsletters/bulletins/magazines	Quarterly	FMIC, broadcasting corporations, media, communication service providers
		4.13. Strategic Communication	FMIC, broadcasting corporations, media,	Advertisement of project activities;	Awareness creation in	Payment for airtime and slots;	Quarterly	

			communication service providers	market information dissemination; sensitization and awareness creation	general public;. buy-in interest of public in the project leading to increase in productivity.	jingles; publication of newsletters/bulletin s/magazines		
4	**Technical Assistance, Knowledge and Communicatio n**	4.2.Knowledge and information Management 4.3(.Support to the preparation of new project/operations)	FMIC, broadcasting corporations, media, communication service providers FMARD, WB, FMF, AfDB, and relevant Development Partners. DFID	Advertisement of project activities; market information dissemination; sensitization and awareness creation Technical support in project preparation	Awareness creation in general public; buy-in interest of public in the project leading to increase in productivity Meetings, project appraisal mission, and scoping missions	Payment for airtime and slots; jingles; publication of newsletters/bulletin s/magazines Project appraisal documents; project implementation manuals; project approval secured	Quarterly Project preparatory stage	FMIC, broadcasting corporations, media, communicatio n service providers
		5.1. Project management	FMARD, FMF, WB, , and relevant Development Partners	Participation in project supervision missions, mid-term review, restructuring of projects/expansion	Meetings; effective project implementatio n; enhancement of policy decision making	Periodic review of project activities; monitoring, coordination and evaluation	Throughout the project life	Being mindful of project's operational costs budget
5	**Project Management and Coordination**	5.2. Monitoring and evaluation	Universities and colleges of agriculture, FMARD, FMF, WB and relevant development partners	Participation in project supervision missions, mid-term review, restructuring of projects/expansion	Meetings; effective project implementatio	Periodic review of project activities; monitoring, coordination and	Throughout the project life	Being mindful of project's operational costs budget

					n; Enhancement of policy decision making	evaluation		
		5.3. Environmental and social safeguards in the participating states	Federal Ministry of Environment (FME), WB, FMARD, State Ministries of Environment and Agriculture	Enforcement of ESMF, RPF, IPMP, ESIA; risk management; waste management	Meetings and consultations, field trips, conflict resolution, redress, and settlement	Policy framework development;. policy implementation through field visits, monitoring and evaluation	From project inception to closure	Quarterly; periodic environmental visit is recommended every year
		5.4. Strengthening of relevant federal and state institutions	FMARD, State Ministries of Agriculture, Environment, research institutions, FMF.	Capacity building/training, office equipment such as computers, printers and accessories, project vehicles, etc.	Effective management, coordination, monitoring and evaluation	Periodic field visits, review of annual work plan and budget, policy formulation enhancement	Twice a year	This will enhance justification for a new project

Indicative list of partnering institutions (1) Monitoring project activities: NGOs, universities, research institutes (2) Evaluation of project results and performance: NGOs, universities, research institutes (3) Quality control and assurance: SON, NASC, NAFDAC, NSPRI, NIOMR, NIFFRI (4) Capacity building: NCAM, ARMTI, NARIs (5) Extension services delivery: NAERLS, FMARD, ADPs, NGOs, private extension service providers (6) Strategic studies, impact assessment: Universities, national and international organizations (e.g. IFPRI, MSU), FME (7) Climate-smart agriculture: FMARD, FME, NIMET (8) Nutrition: FMARD, federal Ministry of Health (FMH), NAFDAC, NGOs (9) Technology acquisition and demonstration: FIIRO, NOTAP, NCAM, RMRDC, CGIAR centers (e.g. Africa Rice, IITA, ICARDA, ILRI), NARIs, universities (10) Ancillary services, including fabrication and maintenance of agricultural machinery: NCAM, FMARD, NOTAP.

Appendix 2 to Annex 2: GREEN HOUSE GAS ACCOUNTING

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

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

3. **Project boundary.** Project activities include:

   a. Improved practices for annuals

Table 10: Climate-smart Intervention Practices

Crop	Improved agronomic practices	Nutrient manage ment	No tillage/residues management	Water manage ment	No residue burning	Manure application	Area (ha)
Maize	✓	✓			✓	✓	25,200
Cassava	✓	✓			✓	✓	43,680
Rice	✓	✓		✓	✓	✓	33,600

   b. Application of urea and chemical N fertilizers: In "without project" scenario, 2,688 tons of urea (N) and 1,680 tons of other N-fertilizers (N) are used per year. Target is to increase to 5,880 and 3,528 tons respectively.
   c. Application of herbicides: Currently 6 tons of herbicides (active ingredient) are used per year. Target is to increase to 44 tons per year.
   d. Flooded rice systems: There are changes on water regime before the cultivation period and organic amendment type on 5,040 ha of land.
   e. Livestock with mitigation option changes: Head of dairy cattle will increase to 13,440 with project. Feeding practice, specific agents, and breeding options will improve to 100, 100 and 50 percent respectively.
   f. Road construction to improve access to markets: Baseline = 0 m2 Project = 1,000,000 m2 (100 km *10 m)
   g. Aquaculture: as table below

Table 11: Production and Quantity Change

	Annual production (tons per year)		
	Start	Without	With
Catfish farm	5216	5216	11340
Tilapia	2445	2445	5500
	Annual quantity of feeds (tons per year)		
	Start	Without	With
Catfish farm	26080	26080	22680
Tilapia	12225	12225	11000

4. **Key assumptions.** The project region has tropical climate with moist moisture regime. The dominant soil type is LAC. The project implementation phase is 6 years and the capitalization phase is assumed to be 14 years. The 20 years implementation period is standard in the use of EX-ACT. In addition, the width of road constructed is assumed to be 10 meter. It is also assumed that there is no manure application or improved agronomic practices for wheat without project.

5. **Results.** The net carbon balance quantifies GHGs emitted or sequestered as a result of the project compared to the without project scenario: Over the project duration of 20 years, the project constitutes a carbon sink of 692,438 tCO_2-eq. The project provides a sink of 6 tCO_2-eq per ha, equivalent to 0.3 tCO_2-eq per ha per year. The main carbon sink source is primarily from improved CSA practices for annuals.

Table 12: Results of the Ex-ante GHG Analysis

	Over the economic project lifetime (tCO2 eq.)			**Annual average (tCO2 eq./ year)**		
Project activities	GHG emissions of without project scenario (1)	Gross emissions of project scenario (2)	Net GHG emissions (2-1)	GHG emissions of without project scenario (3)	Gross emissions of project scenario (4)	Net GHG emissions (4-3)
Improved practices for annuals	(2,898,169)	(5,295,352)	(2,397,183)	(144,908)	(264,768)	(119,859)
Flooded rice systems	188,890	652,394	463,504	9,444	32,620	23,175
Livestock	247,113	382,236	135,123	12,356	19,112	6,756
Fertilizers and pesticide	912,517	1,821,808	909,291	45,626	91,090	45,465
Road construction	-	73,333	73,333	-	3,667	3,667
Aquaculture	121,259	244,752	123,493	6,063	12,238	6,175
Total	(1,428,391)	(2,120,829)	**(692,438)**	(71,420)	(106,041)	**(34,622)**
Per ha	(13)	(20)	**(6)**	(0.7)	(1.0)	**(0.3)**

Annex 3 - Implementation Arrangements

NIGERIA Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project (APPEALS)

A. Project Institutional and Implementation Arrangements

1. The overall responsibility for implementation of the project will be under the auspices of the Federal Ministry of Agriculture and Rural Development (FMARD). FMARD will execute the project using the existing structure -with complement of core staff- of the on-going IDA-financed Commercial Agriculture Development Project (CADP – P096648) for an initial eighteen months of project implementation. Thereafter, the existing structure will be revised, strengthened and expanded to additional states to accommodate the design elements of the new project as well as to reflect lessons learned from the execution of CADP and similar projects. The existing structure is composed of a National Steering Committee (NSC) and a National Coordination Office (NCO) at federal level, and a State Steering Committee (SSC) and a State Coordination Office (SCO), which is essentially PIU at state level in each of the five participating states (Cross River, Kaduna, Kano, Enugu and Lagos states).

2. It is agreed that the NCO that is operational within FMARD will be responsible for the overall coordination of the project, and will also implement selected project activities at the federal level. The NCO has the required qualifications and experience, and has been performing satisfactorily during the past five years. The NCO will coordinate project implementation and performance monitoring using the existing Project Implementation Manual (that is being used under the CADP), which will be updated to incorporate new project activities. The NCO will also be responsible for the overall project level coordination and communication with the World Bank and other partners. The project activities in participating states will be performed through the existing five SCOs and additional ones that will be formed following project expansion to new states.

3. At the federal level, the NSC will be responsible for the overall project oversight including review of consolidated project monitoring and implementation progress reports, and approval of consolidated AWPB including work plan and deliverables by the NCO, fostering and creating a forum for cooperation among projects with relevant project activities or geographic coverage in agriculture and agri-business development. The NSC will be headed by the Minister of Agriculture or by the Permanent Secretary of FMARD as a designated representative. The NSC will meet twice a year and be composed of representatives of relevant ministries, departments and agencies at federal level, involved in project execution. Members of NSC will include Directors of FMARD Departments: Federal Department of Agriculture (FDA), Agri-business and Marketing (ABM), Planning and Policy Coordination (P&PC), Department of Fisheries (FDF), Finance and Accounts (DFA), Rural Development, Animal Production and Husbandry Services (APHS); representatives of other MDAs, including Federal Ministry of Finance; NEC, Federal Ministries of Budget and National Planning, Environment, Women and Social Affairs, and Works; Federal Ministry of Water Resources and representatives of private sector such as Nigeria Agri-business Group (NABG). The NSC will have the authority to invite other agencies as deemed necessary for the efficient project implementation. The NCO will serve as a secretariat for the NSC.

4. The NCO will coordinate project activities on behalf of the FMARD, and will implement cross-cutting activities that benefit all participating states and beyond (in particular under Components 1, 4, and 5). The NCO has gained sufficient direct experience

in managing the Bank-funded CADP. The NCO will be responsible for managing procurement at federal level, administering the M&E system, coordinating the work of different agencies at federal levels, preparing periodic reports and providing support to SCOs. The NCO will be responsible for coordinating and consolidating the preparation of the project Annual Work Plan and Budgets (AWPB), approved by the NSC. Also, the NCO will be responsible for consolidating project monitoring and implementation progress reports, received from SCOs that will be part of the quarterly and annual overall project progress reports. The NCO will supervise the work of SCOs, review (and provide clearance, as necessary) and provide technical support to SCOs in the implementation of project activities at the state level. The NCO will have a reporting responsibility both to NSC and to the World Bank. To ensure that NCO discharges its duties on time and efficiently, the entity will be staffed with the required appropriate experts, and will benefit from TA by a third-party that will be contracted to provide implementation support including that to SCOs.

5. To help effectively coordinate project activities, the NCO will be constituted of capable staff that will include: a National Project Coordinator, Project Operations Officer, M&E Specialist, a Project Accountant, a Procurement Specialist, a Social and Livelihood Development Specialist, Agro-Processing Specialist, Environmental Safeguards Specialist, a Communication Specialist, a Rural Infrastructure Engineer; and support staff. Once on board, the staff time will be fully dedicated to the day to day implementation of the project per the project design, following all Bank Operational guidelines and in accordance with AWBP as approved by the NSC. The NCO will establish a secondment program to benefit from expertise in other institutions whose support is determined to be of high importance in the successful implementation of the project and the achievement of the PDO.

6. At the state level, there will be two layers of oversight comprising the State Steering Committees (SSCs) and State Technical Committees (STCs). Project’s day to day execution will be carried out by the SCO that will be strengthened in those states that have established the necessary structures under CADP, while new implementation entities will be constituted for Kogi state and additional states joining the project. The SCO will coordinate and facilitate project coordination in their respective states and will be responsible for preparing monitoring reports, annual work plans and budgets, facilitating the work and providing periodic reports to SSC and NCO. SCO will serve as a Secretariat for the STC. As such, the SCOs will have a direct reporting responsibility.

7. Headed by State Project Coordinator, the SCOs will be composed of Procurement Officer, M&E Officer, Project Accountant, Environmental and Safeguards Officer, a Social and Livelihood Development officer, Value Chain Development Specialists, Agro-Processing Officer, a Rural Infrastructure officer, a Communication officer, and support staff. The staff composition is expected to differ slightly among states depending on the need and type of activities to be supported. The SCOs will benefit from close support by NCO, staff seconded from other MDAs, and TA for implementation support from a third-party, to be contracted by the project.

8. The responsibility for the management of financial affairs will be handled by the existing Projects Financial Management Units (PFMUs) in each of the participating states. Specifically, the PFMUs will be responsible for: (i) preparing activity budgets, monthly project bank account reconciliation statement, Statement of Expenditures (SOE)/Withdrawal Schedule, calendar semester Interim Financial Reports (IFRs), and annual project financial statements; and (ii) ensuring that the project financial management arrangements are acceptable to the government and IDA. It will also forward the reports and statements to State Ministries of Agriculture and Finance and IDA.

9. The SSCs will be headed by the Deputy Governor in each state or his designate and will meet once a year. The SSCs will be composed of Commissioners of Agriculture, Finance, Women and Youth Affairs, Trade and Commerce, Permanent Secretary of Agriculture, Directors of relevant Agriculture Departments; representatives of private sector such as Chamber of Commerce and Industry, Priority Value Chains Associations representatives (one from each value chain); and project representatives – NCO Coordinator (or his designate) and SCO coordinator. The Permanent Secretary of Agriculture will serve as Secretary in each of the SSC.

10. The SSCs will approve their respective State Annual Work Plan and Budget (SAWPB) prepared by SCOs, review project implementation progress reports, guide and facilitate project implementation based on project design, facilitate and create forum for collaboration among similar projects and agencies with activities relevant to the project operating in the respective states. The SSCs will function at the state level, to a certain extent, the way the NSC functions at the federal level. It will however, have the added responsibility of allowing more stakeholders at the state level to make inputs into project implementation, enhance operational synergy and facilitate shared use of available facilities, capacities and resources.

11. To support the activities of both the SSCs and the SCOs, State Technical Committees (STCs) will be organized that will meet quarterly and as needed to provide technical back-up to the SCOs. The STCs will be responsible for ensuring the alignment of project activities with state development programs (especially programs related to development of agriculture), The STC will review the annual work and budget plans prepared by SCOs and will clear for approval by the SSCs. The STC will have a mandate to approve an update to the SAWPB that has been approved by the SSC but that may require changes to accommodate in development that were not foreseen earlier. Given resource allocation from the Credit, proceed will be based on performance of each state (that is those states that perform well will be provided second-trench allocation from the Credit). The STCs will be responsible for closely monitoring and facilitating the timely and efficient utilization of funding availed under the project.

12. The STC will be headed by the Permanent Secretary in each state. The group will review technical, monitoring and other reports and ensure that project implementation is carried out according to AWPB/SAWPB as approved by the SSC, and following the Project Implementation Manual. The STCs will also ensure that agreed action with the SSCs, the Bank Implementation Support Mission reports and other observations made by external assessment (such as audit service), are implemented timely. The STCs will be composed of Directors from relevant value chain Departments in the Ministry of Agriculture (2), Ministry of Finance, Ministry of Trade and Commerce, Ministry of Women Affairs, Rural Development/Energy Commission; representatives from Chamber of Commerce and Industry, Priority Value Chains Associations representatives (one from each value chain), Project Manager of Agricultural Development Project (ADP), State Commissioner of Police and SPC –Member/ Secretary. The Vice Chairperson will come from the private sector while the SCO will serve as Secretariat for the STC.

13. Staff to be contracted both by NCO and SCOs will be selected competitively following the Bank’s guidelines. All staff will be given a two-year contract that will be renewed, based on each staff performance. Each year, a clear work plan (deliverables) will be developed for each staff and their performance will be evaluated based on this agreed work plan that will be utilized in the decision to renew or terminate the contract of a given staff. Selection of staff for SCOs will be a joint task of NCO and SCOs.

14. The oversight structure at both state and federal levels, in addition to Bank's guidelines and procedures, will significantly help in addressing any tendencies of lack of transparency and accountability that may tend to arise. Taking the lessons learned from the implementation of CADP, this new project implementation arrangement will strengthen areas where weaknesses were observed to allow for smooth operation of this new project. These will include improving capacity limitations, ensuring participation of beneficiaries at local levels, addressing delays in approval processes, clear delimitation and description of the responsibilities of each participating actors, full staffing of SCOs with appropriate technical staff, and the timely provision of counterpart funding.

B. Financial Management (FM) and Disbursement Arrangements

15. A financial management assessment of the implementing entities, in line with the Financial Management Manual (March 1, 2010) and the AFTFM Financial Management Assessment and Risk Rating Principles (October, 2010), was conducted in November 2016. The objective of the assessment was to determine whether the implementing entities have acceptable financial management arrangements, which will ensure: (i) correct and complete recording of all transactions and balances relating to the project; (ii) preparation of regular, timely, and reliable financial statements; (iii) safeguarding of the entity's assets; and (iv) existence of auditing arrangements acceptable to the Bank.

16. The overall FM risk for the project is assessed as Substantial at the preparation phase. This is mainly because of the inherent risks and issues of multiple implementation levels, not due to the control risks associated with the basic elements of the project FM arrangement. However, these inherent risks are well mitigated by the use of the PFMU and FPFMD, which feature robust controls (internal and external). The PFMUs at the state levels, where payments to multiple beneficiaries will take place, have obtained adequate experience in managing financial flows to multiple levels from other projects in the portfolio, and they will also be given additional training. With the mitigation measures, the residual FM risk is Substantial. The mitigation measures include use of computerized accounting systems, professionally qualified and experienced FM staff, and independent and effective internal audit that will adopt risk based internal audit methodology involving risk mapping, etc. The Financial Procedures Manual will detail adequate internal controls which will include an enhanced accountability framework over soft expenditures (travel, study tours, workshops, training, etc.) that will be incurred during the project implementation. Regular reporting arrangements and supervision plan will also ensure that the implementation of the project is closely monitored and that appropriate remedial actions are taken expeditiously. The FM risks will be reviewed during project implementation and updated as appropriate.

17. The PFMUs and FPFMD have been established in all states and at federal level respectively through the joint efforts of the Bank and government. These units are presently involved in the implementation of a number of Bank-assisted projects. The FPFMD will collaborate with the PFMUs to prepare consolidated financial reports for the project. The financial accountability architecture in the FPFMD and PFMUs features amongst other things the following: (i) all the key elements of FM, including budgeting, funds flow, accounting, internal control, reporting and audit; (ii) computerized accounting system and robust FM procedures manual; (iii) qualified staff that are well-trained in relevant Bank procedures and requirements, including procurement; (iv) robust segregation of functions/duties; (v) a strong control environment, which is required to mitigate fiduciary risks; (vi) highly independent and well-trained internal auditors; (vii) full alignment with the government own FM system but with some important enhancements and controls.

18. The Bank’s recent reviews showed that the PFMUs and FPFMD are performing satisfactorily. The key issues noticed within the PFMUs and FPFMD are that of unretired advances and inadequate documentation for incurred eligible expenditures. The project will implement an enhanced accountabilityframework which is aimed at mitigating the risks of unretired travel advances and provision of inappropriate documentation to acquit the travel advances, and unjustifiable claims for travel not undertaken, and arresting such eventualities. Details of the enhanced accountability framework will be elaborated in the Financial Procedures Manual (FPM).

19. *Planning and Budgeting:* Budget preparation will follow the federal or state governments’ procedures as appropriate. The Project Accountant at NCO and SCO will prepare budget for the fiscal year, based on the work program, in consultation with key members of the implementing unit on annual basis. The budget will be submitted to the TTL at least two months before the beginning of the project’s fiscal year. Detailed procedures for planning and budgeting will be documented in the FPM.

20. *Funds Flow.* Project funding will consist of IDA credit. All project funds will be used in line with the Financing Agreement and the World Bank financial management and loan operations procedures. IDA will disburse the credit through a Designated Account (DA) opened with the Central Bank of Nigeria, which will be managed by the NCO/FPFMD and DA for the respective SCOs, opened in reputable commercial banks acceptable to IDA, which will be managed by SCO/PFMUs. The specific banking arrangements are as follows:

a. *At federal level:*

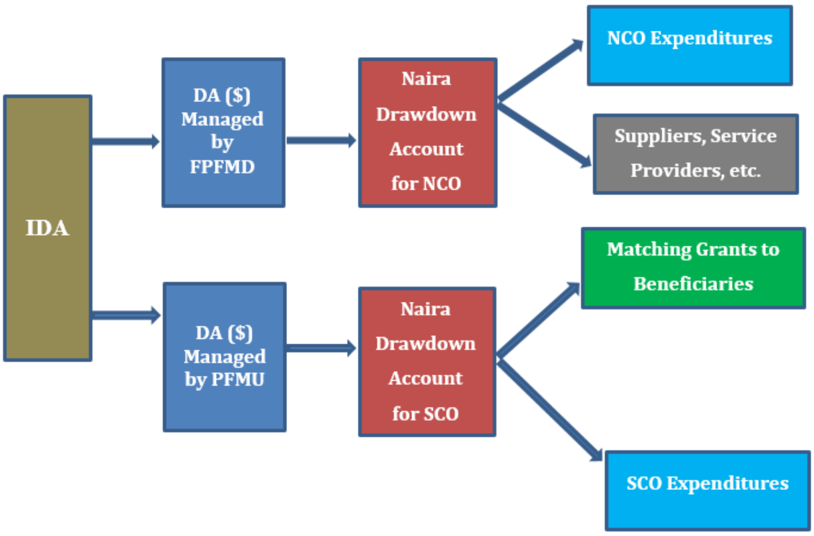
- A US$ DA to which initial deposit and replenishments from IDA will be lodged.
- Funds from the Designated Account may be transferred to Transactions Accounts, opened in in the Central Bank of Nigeria (CBN) in accordance with the Federal Government’s Single Treasury Account policy, to meet eligible expenditures in local currency, provided that transactions and balances in these accounts are included in all project financial reports.

b. At state level:

- A US$ DA for each participating state to which initial deposit and replenishments from IDA will be lodged.
- Funds from the state’s Designated Accounts may be transferred to Transactions Accounts, opened in an acceptable commercial bank, to meet eligible expenditures in local currency, provided that transactions and balances in these accounts are included in all project financial reports.

21. Disbursement to the participating states will be made upon meeting the eligibility conditions, and the SCOs and NCO will disburse the credit proceeds to beneficiaries, suppliers and service providers in line with the procedures that will be elaborated in the PIM.

Figure 1: Project Flow of Funds Chart



22. *Accounting:* IDA funds will be accounted for by the project on a cash basis. Computerized accounting system will be used, utilizing flexible accounting software currently in use at the PFMUs and FPFMD. The software will be expanded to include the project activities. Annual financial statements will be prepared in accordance with the relevant International Public Sector Accounting Standards (IPSAS). All accounting and control procedures will be documented in the FPM, a living document which will be subject to review as appropriate.

23. *Financial Reporting:* Calendar semester Interim Financial Reports (IFRs) will be prepared by the NCO and the SCOs. SCOs will submit IFRs to the NCO not later than 30 days after the semester while the NCO will consolidate IFRs for all SCOs and the NCO and submit to IDA within 45 days of the end of each calendar semester. The formats of IFRs were developed at appraisal and agreed during negotiation. Consolidated annual project financial statements will be prepared and submitted to IDA within 6 months of the end of the government fiscal year by the NCO. Regular periodic returns will be made to the Federal and States Accountants General for consolidation in the government accounts.

24. *Internal Control:* Adequate internal controls are in place at both PFMUs and FPFMD, but will be strengthened further. The control features at both PFMUs and FPFMD include robust FM procedures manual, relevantly qualified staff that are well trained in relevant Bank procedures and requirements, including procurement, robust segregation of functions/duties, and highly independent and well-trained internal auditors. Capacity of the internal auditors will be built to use risk based internal audit approach involving risk mapping, etc. The FM staff is appointed by each State Accountant-General and the Accountant General for the Federation. The Project Internal Auditor at NCO and SCOs will prepare quarterly Internal Audit Report, and NCO will submit consolidated internal audit report to IDA within 45 days of each quarter. Additional controls in the form of an enhanced accountability framework will be implemented to mitigate the risk of misuse of funds for soft expenditures (travel, workshops, study tours, etc.). The enhanced accountability framework will be elaborated in the FPM and PIM.

25. The annual financial statements will be audited by an independent external auditor, appointed on the basis of Terms of Reference (TOR) acceptable to IDA to audit the entire project and certify the consolidated financial statements for the project. The TOR will include provision for the auditor to provide special opinion on the expenditures incurred on training,

workshops, study tours, etc., identifying any expenditure that is considered ineligible based on established policy. The auditor will express an opinion on the Annual Consolidated Financial Statements in compliance with International Standards on Auditing (ISA). In addition to the audit report; the external auditors will prepare a Management Letter. A copy of the audited financial statements along with the ML will be submitted to IDA not later than six months after the end of each financial year.

26. *Risk mitigation measures related to governance and anti-corruption:* Measures to mitigate FM GAC related risks in the project include a Grievances and Appeal Mechanism to be in place. A Grievance Resolution Committee (GRC) will be constituted.

Disbursements

27. A flexible ceiling will be applicable to each of the project Designated Accounts. The ceiling will be derived from approved work plan and budget and will be equivalent to 6 months expenditure forecast. The ceiling will be reviewed annually and revised based on expenditure forecasts. Details of the disbursement arrangement will be included in the Disbursement Letter.

28. ***Disbursement Categories.*** The table below sets out the expenditure components and percentages to be financed out of the credit proceeds:

Table 13: Allocation of Credit Proceeds to be Financed for Eligible Expenditures in Each Category

Categories	**Amount of the Credit Allocated (expressed in US$)**	**Percentage of Expenditures to be Financed (inclusive of Taxes)**
1. Grants- Sub-projects for Technology Adoption	25,000,000	100%
2. Grants – Sub-projects for Women and Youth	72,000,000	100%
3. Civil Works, Goods and Equipment, Training and Workshops, Consultant Services and Operating Costs	103,000,000	100%
TOTAL AMOUNT	**200,000,000**	

29. ***Financial Management Action Plan***. Actions to be taken for the project to further strengthen its financial management system are listed in table below:

Table 14: Financial Management Action Plan

No.	Action	Date due by	Responsible
1	Agreement of format of Interim Financial Report (IFR), Annual Financial Statement and External Auditors Terms of Reference	Was prepared and agreed at negotiations	NCO/FPFMD and SCO/PFMU with support and guidance of IDA task team
2	Train designated PFMU and FPFMD staff in Bank FM procedures and Disbursement Guidelines – Kogi SCO.	Within 60 days following designation of PFMU and FPFMD staff	SCO/PFMU
3	Appoint external auditor	Within 90 days after effectiveness	NCO/FPFMD
4	Update computerized accounting systems at NCO and all participating SCOs	270 days after effectiveness	NCO/FPFMD and SCO/PFMU
5	Designate PA, PIA and support	Prior to	SCO/PFMU

No.	Action	Date due by	Responsible
	accounting technicians to Kogi SCO and the new states	disbursement	
6	Agreement on Memorandum of financial services and service standards between FPFMD & NCO and PFMU & SCO	Prior to disbursement.	NCO/FPFMD and SCO/PFMU

30. *Financial Management Implementation Support Plan*. FM supervision will be consistent with a risk-based approach, and will involve collaboration with the Bank's project team, WAFLA and procurement. The supervision intensity is based initially on the assessed FM risk rating and subsequently on the updated FM risk rating during implementation. Given the Substantial residual risk rating, on-site supervision will be carried out at least twice a year. On-site review will cover all aspects of FM, including internal control systems, overall fiduciary control environment, and tracing transactions from the bidding process to disbursements as well as Statement of Expenditures (SOE) review. Additional supervision activities will include desk review of semester IFRs, quarterly internal audit reports, audited Annual Financial Statements and management letters as well as timely follow-up of issues that arise, and updating the FM rating in the Implementation Status and Results Report (ISR), the Portfolio, and Risk Management (PRIMA) system. Additional target reviews may be conducted depending on emerging risks. The Bank's project team will support in monitoring the timely implementation of the action plan.

31. **Conclusion**. The Financial Management Assessment conclusion is that subject to the mitigation measures and the action plan being implemented as per agreed time frame, the project has met the minimum FM requirements in accordance with OP/BP 10.00. Further, this objective will be sustained by ensuring that strong and robust financial management arrangements are maintained throughout the project duration. Detailed financial management reviews will also be carried out regularly, either within the regular proposed supervision plan or a more frequent schedule if needed, to ensure that expenditures incurred by the project remain eligible.

C. Procurement

32. Considerable progress has been made in procurement reforms in Nigeria since the Procurement Act was passed in 2007. Among the results are the creation of procurement cadre of specialists and the development and deployment of the national standard bidding document. The national Standard Bidding Documents (SBD) have been cleared for use for national competitive bidding in World Bank-funded projects in Nigeria. Over two-thirds of the states have enacted the public procurement law, which are modeled after UNCITRAL model law, and many have functional regulatory agencies. The remaining states are at various stages of enacting the public procurement law. In spite of these achievements, challenges remain. Procurement capacity is generally low and most of the states do not have procurement tools. Although procurement activities are carried out at the procuring entity level, approval of contract awards at a pre-determined threshold is the prerogative of the Governor and the State Executive Council at the state level and Federal Executive Council at the federal level. In many states, the procurement law is not applicable to local governments, thus excluding substantial public expenditure from the procurement law.

33. Procurement management of the project would be built on the existing CADP procurement platform at the federal level and in the respective states which have participated earlier in CADP, while the other new states that are joining the project, would constitute procurement units within the states' Project Implementation Units. A decision was reached

after discussions with the government, to retain the procurement responsibilities fully with the project management team, National Coordinating Office (NCO) at the federal level and State Coordination Offices (SCOs), while the Ministry of Agriculture will have the oversight function through the National Steering Committee and State Steering Committee respectively. The procurement units would be headed by experienced procurement officers who would be competitively selected. These officers would have understanding of the IDA procurement guidelines, procedures and documentations. Both at the federal level and in the participating states, implementation of procurement plans will be responsibility of both the NCO and SCOs. The Procurement Officers both at the federal and state levels will be providing the required procurement support to the PIUs towards achieving value for money with regards to efficiency and effective procurement processes. The NCO will competitively hire an experienced procurement consultant to provide procurement support to both the NCO and SCOs. The consultant will also build the capacity of the procurement officers and other project staff at NCO and SCOs of the states that have low procurement capacity or no experience with World Bank-financed project procurement rules and guidelines.

34. Project beneficiaries will have responsibility for the implementation of sub-projects . Beneficiaries should belong to commodity associations or cooperatives that support the value chain of their interest. SCOs should have a directory of service providers that will provide services to the project beneficiaries. The service providers will be screened by SCOs, and their services will be certified by beneficiary and SCOs' officer/agent before full payment is made. Service providers will be public and private sectors operators. There should be a level playing field in the selection process for the service providers, which shall be detailed in Project Implementation Manual.

Guidelines

35. Procurement for this project would be carried out in accordance with the World Bank's "Guidelines: Procurement under IBRD Loans and IDA Credits and Grants ", 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, "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, (the Anti-Corruption Guidelines)", dated October 15, 2006 and revised in January, 2011, and the provisions stipulated in the Legal Agreement. For each contract to be financed by the Credit, the different procurement methods or consultancy services selection methods, estimated costs, prior review requirements, and time frame have been agreed between the Borrower and the World Bank in the procurement plan. The first 18-month procurement plan would be approved by the World Bank at the commencement of this project, and the plan would subsequently be updated at least annually or as required to reflect the actual project implementation needs and improvements in the institutional capacity.

36. ***Procurement of works.*** All works contracts under this project will be procured in line with the Bank's standard bidding document (SBD) with references to the relevant clauses of the IDA "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants", revised July, 2014" and "Guidance on Shopping Memorandum", June 9, 2000. The procurement procedures and SBDs to be used for each procurement method, as well as model contracts for works and goods procured, are presented in the Project Implementation Manual.

37. ***Procurement of goods***. The goods to be procured under the project will include vehicles and office equipment for the implementing and coordinating units and processing, cleaning, packaging and related items for sub-projects. Procurement of goods will be carried

out using the Bank's SBD for all International Competitive Bidding (ICB-if any). National Competitive Bidding (NCB) procurement will be carried out using the national SBDs, already in use at the federal level. Readily available off-the-shelf goods that cannot be grouped or standard specification commodities for individual contracts of less than US$50,000 equivalent may be procured under shopping procedures as detailed in paragraph 3.5 of the "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants", revised July, 2014, and the "Guidance on Shopping Memorandum". The procurement procedures and SBDs to be used for each procurement method as well as model contracts for works and goods procured are presented in the Project Implementation Manual.

38. ***Procurement of information technology***: Procurement of information technology under the project will include the procurement of a management information system. This will be carried out using the Bank's "SBD for Supply and Installation of Information Systems: Single-Stage Bidding" as it will be possible to use off-the-shelf application software packages after making the appropriate reconfigurations.

39. ***Selection of consultants***. Consultancy services will be provided under the following categories: software development; studies; the audit and verification of beneficiaries' participation; service-wide data collection; the development of a social safety net policy, program, and instruments; the development of a communication strategy; and social and environmental safeguards. Consultancy firms and individuals will be selected from short lists put together, as may be applicable, after the implementing unit has solicited a request for expressions of interest using the World Bank's standard template. The selection of consultants will be made in accordance with the "World Bank Guidelines for the Selection and Employment of Consultants", July, 2014. Short lists of consultants for services estimated to cost less than US$300,000 equivalent per contract may consist entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines. The appropriate selection method for each consulting contract will be set out in the Procurement Plan.

40. ***Operating costs***. The operating costs will include: staff's travel expenditures with prior clearance from IDA; equipment rental and maintenance; vehicle operation, maintenance, and repair; office rental and maintenance; materials and supplies; utilities and communication expenses; and bank charges. The operating costs financed by the project will be procured using the federal government administrative procedures.

41. ***Training, capacity building, and workshops.*** The project coordinating and implementing units will submit their annual training plans to IDA for clearance. The plans will include, but not limited to, the names of the officers to be trained, the training institutions and/or facilitators, the cost contents, the justification for the training, and the estimated cost of the training. Substitution of training candidates will require the clearance of the Bank.

Assessment of the agencies' (NCO and SCO) capacity in procurement

42. Since the project is a federal project, the procurement capacity assessment of the Implementing Agency, to implement the required procurement actions for the project, was carried out by the Bank. This was done in accordance with the Procurement Services Policy Group (OCSPR) guidelines. The assessment reviewed the existing organizational structure of the CADP, NCO to implement the new project. The assessment verified the existing procurement capacity to implement the procurement of this project. The assessment mainly focused on updating the previous procurement risk assessment of the NCO. Apart from Kogi State that is newly coming on board, it was observed that some of the staff that participated in

CADP are still available in the project. In the interest of ensuring successful project implementation, the skilled staff required for the project, including procurement officers and civil servants, would be recruited competitively, based on their qualifications and experience specified for these positions. All recruitments of project staff will be reviewed by the IDA. The procurement actions plans and recommendations have been reviewed and agreed with the Bank during negotiations.

43. The procurement units of NCO and that of the five states under CADP (Cross River, Enugu, Lagos, Kaduna and Kano), have been carrying out a number of procurement of goods, works and engagement of consultant services during the last seven years. In the case of the new seven states, procurement units would be constituted to support the procurement activities of the respective states. The Procurement Officers of the five CADP states were assumed to have sufficient experience of the IDA procurement guidelines and relevant procedures during the CADP project implementation. Each of the other additional states, will have a procurement specialist. and will be supported by the procurement consultants to be engaged by the NCO until the states develop their own capacity.

44. The complete procurement risk assessment will be filed in the Procurement Risk Assessment and Management System (PRAMS).

45. The procurement risk assessment for Lagos State CADP was conducted, and thereafter the following procurement action plan was drawn:

Table 15: Procurement Action Plan

S/N	Action	Responsibility	Action/Date	Remarks
1	Recruitment of project staff, to be done competitively	NCO and Bank	No later than 18 months after the start of project implementation	All recruited civil servants to be cleared by the World Bank
2	Training of staff in contract management and M&E in the interest of accountability and transparency	Bank and NCO	No later than 3 months after the start of project implementation	Training program to be repeated by the NCO in collaboration with participating states
2	Establishment of a central complaint database /website/Internet and hotlines	NCO and CSOs	No later than 3 months after the start of project implementation	To reduce the risk of misuse of project funds
3	Establishment of a proper procurement filling system and development of a procurement tracking system	NCO and each CSO	During the project implementation period	To ensure easy retrieval of information and enhance accountability
4	Conduct Independent Technical Audit (separate from annual external financial audit)	World Bank	Annually	To reduce the risk of misuse of project funds

46. **Result-based procurement plan:** The first 18-month procurement plan for the project outlines the procurement activities to be implemented. The approved plan will be published on the World Bank database, and would be updated annually by the project team to monitor the procurement implementation status, procurement capacity and annual disbursement status of the project.

47. **Publication of results and debriefing:** The contract award results of the entire procurement through NCB, Direct Contracting (DC), and selection of consultants, greater than US$300,000, must be published. For DC and NCB contracts, the awards may be published every quarter in the local newspapers. All competing consultants who have submitted separate technical and financial proposals, irrespective of amount, should be informed about the result of e technical evaluation before opening the financial proposals. The project will be required to debrief all unsuccessful bidders and consultants.

48. **Fraud, coercion, collusion, and corruption.** All procuring entities as well as bidders, contractors, suppliers and consultants must observe the highest standard of ethics during the procurement and implementation of contracts, financed under the project in accordance with paragraphs 1.14 and 1.15 of the Procurement Guidelines and paragraphs 1.22 and 1.23 of the Consultants' Guidelines**.**

Table 16: Procurement reviews and thresholds - Goods & Works

	Procurement Method	Prior Review Threshold (US$)	Comments
1	NCB (Goods) Packages	Above 750,000	All
2	Non-Consulting Services	Above 750,000	All
3	Shopping (Goods)	Below 100,000	None
4	Shopping (Works)	Below 200,000	None

Table 17: 18-Month Procurement Plan for Goods and Grants

Ref. No.	Contract Description	Estimated Cost US$ Million	Procurement Method	Pre-qualification (Yes /No)	Domestic Preference (Yes/No)	Review by Bank (Prior Review)	Expected Bid Opening Date
1	Procurement of Office Equipment	750,000	NCB	NO	NO	Post	June 2017
2	Procurement and Installation of Desktops and Laptops	150,000	NCB	NO	NO	Post	June 2017
3	Procurement of Office Furniture and Steel Cabinets	100,000	Shopping	NO	NO	Post	June 2017
4	Procurement of Operational Vehicles	1,000,000	NCB	NO	NO	Post	
5	Procurement and Dissemination of Equipment and Machineries (100 improved and climate-smart, nutrition-sensitive technologies)	3,000,000	ICB	NO	NO	Prior	Aug. 2017
6	Rehabilitation and Construction of Aggregation Centers (10 Units)	800,000	ICB	NO	NO	Prior	June 2018
7	Procurement of Income Generating Assets: Post-Harvest Handling Equipment and Machinery	2,000,000	ICB	NO	NO	Prior	Sept. 2017
8	Grant Mechanism for Farmers' Groups	3,000,000	NA	NA	NA	Post	NA
9	Provision of Grants (to start-up new business or consolidation of existing business) to individuals or group beneficiaries	4,000,000	NA	NA	Post	NA	NA

49. **Pre-qualification:** Bidders will be pre-qualified in accordance with the provisions of paragraphs 2.9 and 2.10 of the "Guidelines for the Procurement of Goods, Works and Non-Consulting Services."

Selection of Consultants: Selection decisions are subject to prior review by the Bank as stated in Appendix 1 to the "Guidelines Selection and Employment of Consultants", shown in Table 10.

Table 18: Selection subject to prior review by the World Bank and thresholds - consultancy services

S/N	Selection Method	Prior Review Threshold US$	Comments
1	Competitive Methods (Firms)	>300,000	All
2	Single Source (Firms)	All	All
3	Individual	>100,000	All

50. **Short-listing consisting entirely of national consultants:** A short list of consultants, for services estimated to cost less than US$300,000 equivalent per contract, may consist entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

Table 19: 18-Month Procurement Plan for Consultancy Services and Technical Assistance

Ref. No.	Contract Description	Estimated Cost US$ Million	Procurement Method	Pre-qualification (Yes /No)	Domestic Preference (Yes/No)	Review by Bank (Prior Review)	Expected Bid Opening Date
1	Technical assistance to develop templates per value chain investment plans	500,000	QCBS	NO	NO	Prior	Aug. 2017
2	Individual consultants in technology acquisition, demonstration and extension services delivery. (multiple of individual consultants)	650,000	ICs	NO	NO	Prior	Sept. 2017
3	Design and supervision of aggregation centers – (10 Units)	200,000	CQ	NO	NO	Post	Aug. 2017
4	Consultancy services to support market information, grain exchange platforms around aggregation centers.	300,000	QCBS	NO	No	Prior	Oct. 2017
5	Design and supervision of construction of access roads (40 km)	200,000	QCBS	NO	No	Prior	Oct.2017
6	Design and supervision of jetties and water scheme for production.	200,000	QCBS	NO	No	Prior	Oct. 2017
7	Design and supervision of construction of last	200,000	QCBS	NO	No	Prior	Oct. 2017

	mile of connection to road network						
8	Design and supervision of utility water infrastructure for agri.-business processing.	200,000	QCBS	NO	No	Prior	Oct. 2017
9	Preparation and implementation of project capacity building and training plan.	100,000	CQS	NO	NO	Post	June 2017
10	Technical assistance to support FAMRD – (quality control consultant)	300,000	CQS	NO	NO	Post	June 2017
11	Technical assistance consultancy (Information to farmers on inputs and agro-dealers)	100,000	CQS	NO	No	Post	Aug.2017
12	Consultancy services for preparation and implementation of project communication strategy and plan	150,000	CQS	NO	No	Post	Aug 2017
13	Consultancy for development of communication and reporting tools	100,000	CQS	NO	No	Post	Sept. 2017
14	Consultancy services for facilitating public access to project information – web development and maintenance	50,000	CQS	NO	No	Post	June 2018
15	Consultants to provide support to the Project Implementation Unit	100,000	CQS	NO	No	Post	June 2018

51. **Frequency of procurement supervision**. In addition to the prior review supervision for high value contracts to be carried out by the World Bank, the capacity of the implementation agency suggests that the Bank should carry out supervision missions at least twice a year to review procurement implementation. The procurement post-review should cover minimum of 20 percent of the contracts subject to post review. This check is in addition to the annual technical audit to be carried out by independent audit firms.

D. Environmental and Social Concerns, Including Safeguards

Environmental aspects

52. **Environmental Assessment policy (OP/BP 4.01)** is activated, and the project is rated "B". While it will include activities that will positively affect the environment, support to sub-project infrastructure involving small-scale works and agricultural intensification using inputs, could potentially have adverse impact on soil, water and vegetation covers. An Environmental and Social Management Framework (ESMF) has been prepared to ensure that activities, supported under the project, will not result in negative environmental impact (or the adverse impact is minimized if it occurs). The ESMF ensures that environmental and

social concerns resulting from project activities are included and fully appraised at all levels of project interventions, and that they are monitored closely throughout implementation.

53. Possible potential adverse impacts that will be site specific may derive from the use of agricultural chemical inputs (fertilizers, pesticides and insecticides) and small civil works. The adverse impacts could include contamination of soils and surface water, waste generation, dust pollution, disruption to natural habitats, and groundwater contamination because of runoffs. However, the ESMF that was disseminated in-country on January 30, 2017 and submitted for disclosure through the World Bank information system on January 31, 2017, includes specific actions to mitigate any identified adverse impact.

54. The following additional safeguard policies are activated by the project:

a. **Natural Habitats (OP/BP 4.04**). The implementation of support services to agro-processing such as extension of electricity transmission lines and installation of gas pipelines might pass through important areas and natural habitats such as swamps and marshes. To the extent possible, the project will strive to stay away from sensitive natural habitats and would make all efforts to avoid incursion into such habitats. However, to account for the very low probability that this may still occur, the ESMF specifies the procedures and processes that will be followed to ensure that potential adverse impacts are avoided and/or mitigated. There will be stringent monitoring at all levels to ensure that the project remains alert to the required avoidance of incursion into sensitive natural habitats mainly during the site selection for sub-projects' activities and the establishment of facilities.

b. **Pest Management (OP4.09).** One of the aims of the project is enhancing agricultural productivity, which assumes the use of new technologies and inputs like pesticides. Some of these activities may be directly financed by the project, while others may be supported by farmers themselves with TA from the project. To ensure that potential risks and adverse impacts are identified and mitigated to an acceptable level, the Borrower has prepared an Integrated Pest Management Plan (IPMP). Mitigation measures to be undertaken under the project include the application of integrated pest management (IPM) practices and the application and promotion of integrated pesticide management practices, outlined in the guidelines of the International Code of Conduct on the Distribution and Use of Pesticides, and Risk Management for Transgenic Crops through the national bio-safety framework and international best practices.

c. **Physical Cultural Resources (PCR) (OP/BP 4.11).** At this point, no specific PCR site that can be affected has been identified because specific localities where sub-projects will be implemented and infrastructure works will be undertaken, have not yet been identified. The project, however, has opted to prepare a preventive plan to ensure that it will not impact PCR that could result, among others, from potential chance finds from excavation for pipelines, rural road works (that will include new and improvement works) and other ancillary facility works. The Environmental and Social Screening Checklist and the Generic Environmental and Social Mitigation Measures and the ESMF include a chance finds procedure for archaeological remains and other historical heritages along construction routes and sub-project sites. The ESMF includes the appropriate mitigation measures (chance find procedures) as well as clauses for contractors to be utilized in case of discovery of cultural relics of archaeological remains during the works. While the project will monitor for this possible potential encounter, there is no sufficient ground at this point to activate this safeguard policy.

d. **Involuntary Re-settlement (OP/BP 4.12).** This safeguard is activated as infrastructure investments would result in involuntary re-settlement and land acquisition. Given the fact that the actual sites for sub-projects have not yet been identified, the Borrower has prepared a Resettlement Policy Framework (RPF) in accordance with the Bank Safeguard Policy on Involuntary Re-settlement (OP/BP 4.12). The RPF outlines the re-settlement process in terms of procedures for preparing and approving Resettlement Action Plans (RAPs) including considerations about likely categories of affected people, eligibility criteria and categories, compensation rates, methods of valuing affected assets, community participation, information dissemination, Grievance Redress Mechanism, and effective M&E. A Resettlement Policy Framework (RPF) has been prepared. The RPF shall apply to land acquisition, displacement, compensation, livelihood restoration and other matters in participating State related to investments directly funded by the Project, including infrastructure and other investments anticipated to be financed. Thus, the RPF will guide the development and implementation of RAPs associated with the project to ensure compliance with OP 4.12.

55. The ESMF details a series of measures to reinforce the capacities of involved institutions, and ensures that following appropriate mitigation measures will be in place for each activity: (a) recruitment of full-time environmental specialist and social and livelihood expert within the NCO, responsible for screening of activities and drafting of ESMP; (b) realization of an ESIA for all activities with substantial environmental and social impact; (c) capacity-building and training of all stakeholders involved in sub-projects' implementation; (d) organization of meetings between local, regional and national stakeholders; and (e) drafting of an Environmental and Social Manual of Procedures.

The institutions responsible for each step of the environmental and social review are detailed in the project's Environmental and Social Management Framework (ESMF).

Social aspects

56. By design, the project is planned to have a substantial positive social impact. First, the project directly targets farmers' cooperatives and groups. Women and youth are targeted with a dedicated sub-component to help them improve their livelihood through gainful employment. The project will finance a number of capacity improvement of farmers, women, youth and other beneficiaries. Its spillover effect is expected to be substantial. The gains from rapidly enhancing and improving agricultural productivity, agro-processing, access to markets and improved post-harvest handling (including packaging) are expected to quickly translate into enhancement of the beneficiaries' income and creation of jobs in project intervention areas. The project, through strengthening of cooperatives and encouraging the formation/strengthening of farmers' groups, will contribute to social cohesion in specific localities of interventions.

57. Possible negative social impacts that could result from works to be supported by the project, are determined to be localized and site-specific, which can be mitigated easily. Additional potential adverse social impact could be loss of access to common resources (such as land) as the land use changes from some earlier activity to specific project-supported sub-project (for example, common grazing land may be chosen for agro-processing facility or other type of sub-project).

58. To address these limited potential negative impacts, the project will apply necessary mitigation measures to comply with Operational Policy (OP) 4.12 on Involuntary Re-settlement. No displacement is envisaged under this project. However, in case it does

happen, compensatory mechanism will be activated helping affected persons who meet eligibility criteria.

59. **Gender.** In view of the fact that the project specifically targets women and youth, it will have a major positive impact on gender equity in its intervention areas. The. The project will proactively and systematically ensure the participation of women in all of its activities that will ensure equal opportunities and reduce unequal outcomes. Over 35 percent of the beneficiaries are expected to be women.

60. **Public Consultation and Communication**. Consultation and communication have been built into the project design, and will be undertaken at all levels of project execution. First, the Steering Committees constitute the forum to consult about project plans and activities at all levels. The selection of sub-project will be a result of intensive consultation with beneficiaries. The project will create, as much as possible, awareness among potential beneficiaries in its intervention areas. . Stakeholders will be involved from national/federal to local levels through the different organizational arrangements, planned under the project, which include Steering Committees at all levels, Technical Committee, and Local Groups. The project has held a number of consultations during its preparation, and will build further on the process initiated.

61. **World Bank Grievances Redress.** Communities and individuals who believe that they have been or could be 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 the 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.

62. **Communication and Citizen Engagement:** Taking the lessons learned from CADP and other World Bank-supported operations at local levels (Mainly FADAMA-AFII), the project will create forums for citizen engagements and will design and implement a communication strategy. The communication strategy will enable transparency and ensure that all potential beneficiaries are aware of the potential support the project would provide. The communication strategy will be developed and implemented to cover all levels, based on tailored activities to reach the different audiences. This will be implemented through dedicated staff at national level, and with supportive staff at SCOs level. The implementation will be contracted out but the coordination work will be undertaken at the national and state levels.

63. Building on the extensive consultation done during the project preparation, the project will create a forum for citizen engagement. Stakeholders at different levels will be participating in the project. The NSC, the SSCs, and Technical Committee will provide forums for engagement. At local level, SCOs will utilize existing cooperatives and producers' groups to engage citizens. Since the choice of sub-projects will be based, among others, on expressed interest of beneficiaries and the demand-driven nature of these sub-projects, citizen engagement automatically becomes a part of the overall sub-project selection and implementation. A communication and dissemination campaign will be undertaken to

sensitize citizens, followed by organizing local workshops and consultation meetings, before inviting the beneficiaries for submission of sub-project proposals.

64. The communication strategy will have a tailored approach to ensure that women and youth are fully informed about the support planned under the project, and their direct engagement will help in identifying specific needs for training and capacity building . The citizen engagement will allow to gauge how much women and youth are capable of developing a proposal and the type of support they need to develop business plans for financing by the project.

65. Finally, as part of the detailed M&E system (beyond project indicators included in the PAD but expanded in the POM) the project will establish a citizen engagement review mechanism that will provide information on the level of satisfaction of the beneficiaries from the support they received from the project. The satisfaction level could be measured by: (i) percent of respondents that report their satisfaction with the project support; (ii) extent of the project reflecting their expressed needs; and (iii) level of support received from all involved in project execution – including value chain operators/associations, aggregators, etc.

Annex 4 - Implementation Support Plan

NIGRIA Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project (APPEALS)

Strategy and Approach for Implementation Support

1. The strategy for implementation support focuses on establishing a mechanism on how the World Bank Group (WBG) and other participants in project execution will systematically provide technical advice and other necessary support to ensure the achievement of the PDO. It is also a reflection of the risk mitigation measures that will be monitored and addressed throughout project implementation. In the first two years of the project, both implementation support and field visits will be intensive to ascertain that the project starts on good footing. Accordingly, in the first year, at least three supervision and field visits will be undertaken.

2. As part of setting the stage for project supervision, and to ensure that any capacity gaps are addressed early in project implementation, during project launch (or during the period leading to project launch), training sessions will be organized (i) to ensure a clear understanding of the World Bank's operational guidelines, (ii) to explain the procedures to be followed at each stage of project implementation for carrying out activities, (iii) to acquaint NCO and SCOs staff with the reporting mechanism and formats, and (iv) to efficiently enable the additional new SCO for Kogi State (that will be set before project launch) to function properly. Further, the implementation support mission that will be undertaken before the effectiveness of the project, will help in strengthening the project's implementation readiness.

3. Following the intensive supervision in the first two years of project implementation, a Mid-Term Review (MTR) will be conducted at the end of the second year of project execution. The MTR will be basically an evaluation to be done by an external independent consultant with experience in agriculture and value chain development. The MTR will provide an opportunity to revisit all aspects of the project design and take appropriate actions as needed. It will also provide an opportunity to assess the utilization of the Credit proceeds by each state and make recommendations on allocation of resources to ensure that the states, which are advancing quickly in project implementation, may not be dragged down by some other states, which have delayed the execution of project activities.

4. The supervision and field visits, involving several actors, will focus on promoting coordination among the Borrower, project executing entities, supporting agencies and the World Bank as follows:

   a. The WBG task team will be composed of experts required to provide timely and relevant technical and operational advice on project activities and implementation[18]. The team will work closely with counterpart teams in seeking solution to problems as they are encountered, and in appraising risks in project implementation. The technical and operational activities will include joint review of project execution with participating institutions, agencies and groups, which will be assessing whether the project implementation continues to be in line with the PDO. The team will make

[18] During preparation, the Bank put together a multi-sector team that included specialists in agriculture and agri-business, private sector development, private-public partnerships, land management, environmental and social safeguards, monitoring and evaluation, social and political economy, financial management, and procurement.

adjustments to the design if necessitated by the changing implementation environment, or in response to new risks identified. The M&E system that will be established as an integrated system involving both NCO and SCOs (with reporting from local level participating/beneficiary groups), will be the backbone in assessing and monitoring project implementation progress, and later in gauging the impact. The technical and operational review will also seek the cross-fertilization of lessons from one locality/state to the other to scale up success in light of the lessons learned.

b. Specific to fiduciary, the Bank's financial management and procurement specialists will support, both the NCO and SCOs' staff. Starting with the launch of the project, they will educate them in Bank guidelines and procedures, provide hands-on advice in following the Bank's guidelines, and build the capacity of these implementation entities at all levels. During implementation support, the Bank's team will supervise the national staff's adherence to the Bank Guidelines and financial management arrangements, reviewing procurement documents, and monitoring procurement progress against the detailed Procurement Plan. Supervision will also focus on the implementation and functioning of the financial management and procurement systems as will be agreed upon and included in the project document.

c. Based on the quarterly report to be submitted by the NCO, the WB will provide a detailed assessment in its feedback. The TTL will identify if there are any areas that require quick support from a technical specialist, and will provide such additional help. Technical support to be provided to the NCO and SCOs can be local or international (or a combination of both) consultants, as deemed necessary.

d. The Bank's environment and social development specialists will closely work with their counterparts in the NCO to ensure that implementation of safeguard plans and framework (e.g. ESMF and RAP) are executed as agreed and outlined in these documents. The team will also provide necessary training during the project launch to familiarize all involved in the implementation of safeguard instruments. The Bank team will undertake field visits to ensure that safeguards are implemented per the Borrower's laws and regulations as well as per Bank Guidelines. The World Bank will support both the NCO and SCOs to apply the lessons learnt during the implementation of environmental and social safeguards at the grassroots level by other Bank-financed projects, mainly FADAMA III, CADP and WAAPP.

e. A qualified service company will be engaged to support the NCO in managing the grant facility and to provide TA to SCOs. Appropriate incentives will be created under a service agreement with that company, for prudent selection of grantees, incubation of new business owners, and successful launch of new enterprises, funded through the facility.

Implementation Support Plan

Time	Focus	Skills needed
Pre-effectiveness period	-Pre-implementation support to NCO and SCOs (selection of the technical assistance firm, and team readiness improvement); - Review and validation of the Project Implementation Manuals; - Review and validation of value chains investment framework along	-Value chain development specialist - Operations officer: project activities and budget planning) -Private sector and SMEs specialist -Environmental and social Safeguards team -FM and procurement support, -M&E and impact evaluation

	with the AWPB, and detailed procurement plan for each PIU - Awareness, consensus building and project communication at national and state levels -Establishment of Koi SCO	specialist; -Agro-business specialist -Communication specialist -Gender specialist
First six months	- Validation of the first business alliances and out-grower schemes, and selection of first cooperatives and groups that will benefit from the project - Support to preparation of the business plans and related sub-projects, to be supported in each states - Awareness creation and project communication	-Value chain development specialist -Infrastructure specialist, -Private sector specialist -Safeguards Team -Fiduciary Team -M&E and operations specialist -Agro-business specialist -Communication specialist -Gender specialist
6-12 months	- Design of infrastructure works for the first states - Social and environmental safeguards -Conducting impact evaluation baseline study - Demonstration of agricultural inputs and machinery for selected quick wins in the first batch of states -Kick-off project activities in new states	-Value chain development specialist -Infrastructure specialist -Private sector specialist -Safeguards Team, -Fiduciary Team -M&E and operations specialist -Agro-business specialist -Communication specialist
12-48 months	-Agricultural productivity improvement -Value chain and out-grower scheme -Women and youth enterprise start-up and strengthening -Supervision of Infrastructure works -M&E -Establishment of SCO and Financial Management System, team building and activity planning in the new states -Lessons learnt	-Agronomist -Agri-business specialist -Value chain financing specialist -Infrastructure expert -M&E specialist -Social and gender specialist -Livelihood specialist -IE specialist/Economist (Fiduciary and safeguards support)
59th month to closing	-Routine supervision -Intensive lessons learnt -Preparation of follow-up operations	Agribusiness Financial services -M&E and IE specialist/ economist -SME specialist (Economic and Financial analysis)

Skill-mix

Skills needed	Number of staff weeks	Number of trips/year	Comments
Task Team Leader (TTL), Value chain	10 staff weeks per year	3	Based in the Country Office
Co–TTLs (Agri-business and Agric. economist)	8 to 6 staff weeks	5 (2+3)	Based in Washington, DC
Road specialist	2	2	Based in the Country Office
Agri-business specialist	6 to 4	2	Based in Washington, DC
Private sector specialist	6 to 4	4	Based in the Country Office
Operations Officer (implementation support)	4	4	Based in Washington, DC
Environment specialist	4	4	Based in the Country Office
Social safeguards specialist	4	2	Based in Washington, DC
Social safeguards specialist (Livelihoods)	6	2	Based in the Country Office
Financial management specialist	3	1	Based in the Country Office
Procurement specialist	4-2	1	Based in the Country Office
Monitoring and evaluation specialist	2	4	Based in the Country Office
Impact assessment specialist (GIL)	4	2	Based in Washington, DC
Impact assessment specialist (youth program)	8	4	Based in the Country Office
Communication specialist	2	4	Based in the Country Office

Partners

Name	Institution/Country	Role
IFC , Trade and Investment	-WBG Lagos & Abuja (Nigeria), and Washington, DC (USA)	Identification of lead value chain players in the private sector, BDS
FAO (Investment Center)	FAO, Rome (Italy)	Activity planning, implementation manuals, support to the Task Team during ISMs
WB/LLI, GEM &GEMS Projects	WB,DFID (Nigeria)	Knowledge management
Africa Gender Innovation Lab	Washington, DC (USA) Abuja (Nigeria)	Project impact evaluation
Governance, Gender and Conflict Filter Team,	Abuja (Nigeria) Washington, DC (USA)	Gender Tag, Gender Tracker, assessment of states readiness

Annex 5 - Economic and Financial Analysis

NIEGRIA Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project (APPEALS)

Overview of the Methodology

1. A financial and economic analysis was carried out for the production, assemblage and processing of a number of major food commodities. These commodities were selected from the many commodities listed in the Green Alternative roadmap, for their importance to Nigeria's import/export markets and food security needs. The objective of these analyses is to ascertain the financial and economic feasibility of the proposed Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project. The project is expected to be financially viable to the extent that it will increase the net financial benefits to participants. Economic viability will be assessed based on the ability of the project to generate net positive benefits to the economy as a whole. These analyses also seek to assess the long-term sustainability of the project. In the course of these analyses, a number of assumptions were made that informed the calculation of the discounted measures of project worth. These various assumptions are detailed below:

Assumptions underlying the financial analysis

i. The project will directly benefit a minimum of 60,000 beneficiaries - an average of approximately 10,000 beneficiaries per state. These beneficiaries will consist of farmers, cooperative societies as well as stakeholders in small and medium-scale business enterprises along and around the supported priority value chains. It is anticipated that 35 percent of the total direct beneficiaries will be women, while about 375,000 farm families per state will be indirect beneficiaries.

ii. The project is expected to result in a 20 percent increase in yield over the project life. However, it is assumed that the increase will be gradual and staggered across the life of the project. It is assumed that yields will increase by 5 percent in year 1, 10 percent in year 2, 10 percent in year 3, 15 percent in year 4, and 20 percent in year 5. Post-year 5, the rate of growth in yield of crops will be 20 percent. This yield increase is expected due to the adoption of improved technologies of crop production and through the increase in ready availability of high quality inputs.

iii. It is assumed that all outputs will be sold at the prevailing market prices.

iv. Investments by project beneficiaries will be accounted for at the beginning of the project, and the replacement cost for assets used will be accounted for in the year when they were purchased.

v. The project life is 6 years but the streams of net benefits will flow for 20 years.

vi. There are two kinds of discount rates used for the financial analysis. The first is the single digit interest rate in the economy (9%) and the market rate of interest (29%) that deposit-money banks in the country lend to their customers.

Assumptions underlying the economic analysis

2. The computation of economic rates of returns for this proposed project is based on the following assumptions:

i. Both the output and input markets are competitive, and, therefore, this analysis used the international market prices of tradable goods as the true reflection of opportunity costs.

ii. The analysis used domestic market prices of non-tradable goods as true reflection of opportunity costs. However, most inputs and outputs in the study are non-traded. The volume of output generated and volume of inputs used by the project were not large enough to influence changes in the domestic market prices of outputs and inputs.

iii. The farm budgets for the representative models were obtained using domestic market prices as at 2009 constant prices to remove the effects of inflation. In addition, a foreign exchange premium was used to convert the traded commodities in the financial accounts into economic values that reflect the opportunity cost of exchange. The Foreign Exchange Premium of 1.4909 was used to convert all traded commodities into economic values. The exchange rates used in the study is presented in the table below.

iv. Although fertilizer is no longer being subsidized by the Federal Government of Nigeria, it was envisaged that participants in the project will obtain inputs at a subsidy of 50 percent, as reflected in the rates at which inputs are obtainable in other economic CDD projects of the Bank in Nigeria. As a consequence, input prices are adjusted for the subsidy in the economic analysis.

v. For the purpose of this analysis, the economic analysis treats tax and subsidies as transfer payments. For financial analysis, such adjustments are unnecessary because taxes have been treated as costs and subsidies as revenue.

vi. The distribution of project costs over the life of the project is presented in the cost tables.

vii. The project implementation period is 7 years but the streams of costs and benefits are extended over 20 years for all the value chains.

Description of data

3. The following were used as inputs into the financial and economic analysis:

i. Input-output technical coefficients of all relevant enterprises in the value chains

ii. Domestic market prices of all relevant value chain inputs and outputs are at 2009 constant prices.

iii. Macro-economic indicators and policy variables such as interest rates, composite price index, inflation rates, foreign exchange rates and transfer payments were sourced from various bulletins of the National Bureau of Statistics and the Central Bank of Nigeria.

iv. Data on crops, physical inputs, labour application, irrigation maintenance charges, farm assets, seeding rate, seed sources, seed unit price, yield and output price for 2016 cropping season were collected from records kept by the M&E Unit of the National Programme for Food Security. The NPFS-M&E Unit keeps regular annual time series data on market prices of major crops in the country.

Key Results of the economic and financial analysis

4. The analyses compared ‘with’ and ‘without’ project net benefit situations for the different value chains. Out of the 5 value chains done so far, all have been found to be feasible as shown by the discounted measures of project worth in the table below.

Table 20: Estimated Financial and Economic Rates of Return on Value Chain Enterprises.

No.	Enterprises	Estimated ERR (%)	NPV* (Econ) (US$’ Million)	Estimated FRR (%)	NPV (Fin)* (US$’ Million)
1	Aquaculture	62.41	35.89	54.32	32.43
2	Rice production	48.46	2.99	47.43	2.8
3	Maize production	55.45	0.55	53.7	0.54
4	Cassava production	49.0	4.78	48.93	4.77
5	Wheat production	47.8	1.89	46.47	1.88

** Conversion rate is NGN315.25 to $1.00*

5. Empirical evidence from the two measures of project worth - FRR and NPV as reported in the table above indicate that there is sufficient incentive for the participants to embark on any of the enterprises within the value chains for aquaculture, rice, maize and cassava. The estimated financial rates of return (FRR) for the enterprises range between 46.47 percent for wheat production to 54.32 percent for aquaculture production. The profitability of many enterprises is further reinforced by the high net present values as shown in the table above. On the other hand, all the discounted measures of project worth under the economic analysis for the different value chains were feasible as the NPV ranged from 0.55 million for cassava to 35.89 million for aquaculture. Also, the ERR ranged from 47.81 percent in wheat to 62.41 percent in aquaculture. The implication of this is that the various value chains in the project are feasible from the stand point of the society. The overall Economic Internal Rate of Return for this project is 52.62 percent**.**

Sensitivity analysis and switching value

6. The sensitivity analysis for the enterprises under this project was carried out to see how the internal rate of returns and the net present value will change if cost was increased by 10 percent and 20 percent, and revenue/benefits reduced by 10 percent and 20 percent respectively. In the final analysis, the switching values for increase in cost and reduction in benefits were computed. This is the maximum percentage increase in cost or reduction in benefits that will make the NPV to be less than zero (negative NPV). The results of the sensitivity analysis and the switching values are shown in the table below.

Table 21: Summary Results of the Sensitivity Analysis and the Switching Values for the Enterprises

Enterprise	**Discounted measure**	**Increase in cost**		**Decrease in benefit**		**Salvage value (%)**	
		10%	**20%**	**10%**	**20%**	**Cost**	**Benefit**
Economic Analysis							
Aquaculture	NPV($ million)	24.82	13.75	14.83	(6.23)	32.42	17.04
	IRR (%)	47.77	40.67	42.38	23.43		
Rice	NPV($ million)	2.31	1.63	1.1	(0.79)	43.91	15.81
	IRR (%)	45.02	40.84	37.71	23.03		
Maize	NPV($ million)	0.40	0.26	0.19	(0.17)	37.81	15.26
	IRR (%)	47.24	41.95	39.21	21.40		
Cassava	NPV($ million)	4.04	3.29	1.73	(1.31)	64.08	15.69
	IRR (%)	46.8	44.27	37.99	22.75		
Wheat	NPV($ million)	1.59	1.29	0.58	(0.74)	62.68	14.37
	IRR (%)	45.63	43.12	35.68	21.44		
Financial Analysis							
Aquaculture	NPV($ million)	21.91	11.39	11.37	(9.69)	30.83	15.4
	IRR (%)	45.79	38.47	39.18	21.7		
Rice	NPV($ million)	2.21	1.58	0.95	(0.94)	44.97	15.0
	IRR (%)	44.14	40.2	36.21	22.47		
Maize	NPV($ million)	0.4	0.27	0.18	(0.18)	39.24	15.15
	IRR (%)	47.04	42.07	38.79	21.38		
Cassava	NPV($ million)	4.03	3.3	1.72	(1.33)	64.74	15.65
	IRR (%)	46.76	44.26	37.9	22.73		
Wheat	NPV($ million)	1.61	1.33	0.56	(0.75)	68.07	14.28
	IRR (%)	45.49	43.23	35.36	21.45		

7. For the both economic and financial analyses of the enterprises, a 10 percent and 20 percent increase in the cost of the project still produced net present values and internal rate of returns that are feasible since the NPV for all the crops are still greater than zero while the internal rate of returns were also greater than the cost of capital that was put at 26 percent.

The switching values for cost of the various enterprises range from 32.42 to 64.08 percent for economic and 30.83 to 68.07 percent for financial analysis.

8. As for a 10 percent and 20 percent reduction in benefits, all the crops are sensitive above a 10 percent decrease in benefits. At 10 percent reduction, all the discounted measures were favorable but if benefits were reduced by 20 percent for all the crops, the net present values turned negative while the IRR were also below the cost of capital. One can safely conclude that the project is highly robust to increase in prices of inputs (cost) while being sensitive to a reduction in output prices (benefits). The switching values for economic analysis of the crops ranges from 14.37 to 17.04 percent while the range for those of financial analysis were 14.28 to 15.65 percent.

Value chain competitiveness analysis

9. The Bank team has carried out economic analysis of the value chains of the major commodities listed above, to complement effort of the government consultant. This analysis is done for a few selected agricultural commodities supported by the new operation, which includes rice, maize, tomato and cocoa.

Procedure:

a. The estimation made use of value chain approach using Policy Analysis Matrix (PAM)
b. Estimation of cost and revenue covered all the segments of each value chain that is, from farm to assembly (paddy collectors) through processors and marketers.
c. Every effort was made to get current prices of fixed factors and variable input of production at every node of the value chains.
d. Labour cost were estimated for different activities, using the standard man-day conversion.
e. Operators' charges were used where a machine can perform what manual labour will do.
f. Precursor estimates of cost and revenues are based on one ton of final product of the value chains.
g. Lagos was used as regional clearing market for all selected markets.
h. Parity prices were estimated for products of the value chains as import substitutes.
i. Domestic Resource Cost (DRC) was estimated to assess economic viability of the value chains. The domestic resource cost is a measure of relative efficiency of domestic production by comparing the opportunity cost of domestic production to the value generated by the product. It is calculated as the ratio of the cost of domestic resources and non-traded inputs of producing the commodity to the net foreign exchange earned or saved by producing the good domestically.
j. DRC < 1 indicates efficiency of producing the good domestically DRC > 1 indicates inefficiency in domestic production. A DRC = 1 indicates a balance, in which case country neither gains nor saves foreign exchange through domestic production.
k. FCB shows the private efficiency of farmers, processors or the marketing channels, and is an indication of how much one can afford to pay domestic factors (including a normal return to capital) and still remains competitive. Thus FCB<1 indicates that entrepreneurs are earning excess profits while FCB>1 implies entrepreneurs are making losses. FCB = 1 indicates the breakeven point.
l. The domestic resource costs and the financial cost benefit ratios of each of the selected commodities is listed in the table below. The Domestic Resource Cost (DRC)

ranges from 0.969 for aquaculture to 0.079 for cassava, indicating that Nigeria holds a comparative advantage in the production of these crops. Similarly, the Financial Cost Benefit ratio (FCB) indicates that each of the commodities are relatively profitable. The project is expected to contribute to the optimization of the value chain and the elimination of leakages, resulting in increased productivity and competitiveness in the export market.

10. A " with project" increase in yield of 20 percent leads to a projected reduction in the DRC for all the commodities under consideration. In particular, the DRC for aquaculture reduces by 35 percent and the DRC for wheat production reduces by 24 percent post project implementation. This indicates that there is a significant opportunity to increase the efficiency of these particular industries. Increased production of both these commodities will contribute towards enhanced food security and reductions in imports. In contrast, the DRC for cassava production is 0.086 even without project indicating that Nigeria already holds a substantial comparative advantage in this crop and that the project should focus on making the systems more export friendly.

Table 22: Table: Estimated Domestic Resource Cost (DRC) and Financial Cost Best

		Status quo		**20% Increase in Yield**		**Percentage change**	
	Enterprises	**DRC**	**FCB**	**DRC**	**FCB**	**DRC**	**FCB**
1	Cassava production	0.086	0.258	0.079	0.236	-8%	-9%
2	Rice production	0.479	0.371	0.427	0.338	-11%	-9%
3	Maize production	0.593	0.514	0.549	0.484	-7%	-6%
4	Aquaculture	0.969	0.052	0.634	0.05	-35%	-4%
5	Wheat production	1.187	0.322	0.898	0.28	-24%	-13%

Annex 6 - Snapshots of Selected Commodity Value Chains in Nigeria[19]

NIEGRIA Agro-Processing, Productivity Enhancement and Livelihood Improvement Support Project (APPEALS)

RICE

Aggregate demand/supply	Aggregate demand	5.6MMT in 2013; 6MMT estimated in 2016
	Local production	2.79MMT in 2013; 3.2MMT in 2015
	Volume of imports	2.5 – 3 MMT per year
	Value of imports	Circa $1.2billion annually @ $392 per MT
Key producing states		Niger, Kogi, Kaduna, Kebbi, Kano, Taraba, Nassarawa, Benue, Ebonyi, and Kwara
Major constraints		Low productivity and unavailability of rice paddy caused by: • Prevalence of used seeds • Limited mechanization • Limited irrigation • One production cycle per year • Access to credit • Consumer apathy due to low quality • Erratic protectionist tariffs, which encourage smuggling of rice across borders
Key supply chain drivers and location		• Olam Lagos, Stallion Lagos, EbonyiRice, Umza, Dangote, Onyx • Retailers nationwide • USAID Abuja, NIRSAL Abuja • FMARD
Potential for project intervention	Value addition	• Improved quality of milled rice, especially reduction of stones • Provision of storage facilities
	Import substitution	Food security; with focus mainly on food security and domestic self-sufficiency
Possible areas of intervention	Productivity increases	Promote improved rice varieties and management practices; more efficient seed systems
	Value addition	Enhanced market linkages; storage and warehousing; primary processing

[19] Assembled from various sources with estimates from the World Bank/IFC Nigeria Join Implementation Plan (JIP) team.

MAIZE

Aggregate demand/supply	Aggregate demand	750 MMT in 2010
	Local production	550,000 MT in 2010
	Volume of imports	200,000 MT in 2010
	Value of imports	$1.4 billion in 2014
Key producing states		Kaduna, Niger, Adamawa, Plateau, FCT, Bauchi, Gombe, Borno, Nasarawa, Kwara, and Oyo
Major constraints		• Lack of good quality maize seeds • Restricted access to land • Weak value chain linkages • Lack of GAP • Lack of mechanization
Key supply chain drivers and location		• Nestle Lagos, Grand Cereals Jos, Karma Food Industries Lagos, Baban Gona Lagos • AFEX Abuja, NCX Abuja
Potential for project intervention	Value addition	Reduction in the cost of poultry as maize constitutes about 60% of feed cost
	Import substitution	Potential substitute for wheat and rice
Possible areas of intervention	Productivity increase	Promote improved maize varieties and management practices; more efficient seed systems
	Value addition	Enhanced market linkages; storage and warehousing; primary processing

CASSAVA

Aggregate demand/supply	Aggregate demand	40 MMT
	Local production	35 MMT
	Volume of imports	Nil for raw tubers; 130,000 MT of starch in 2014
Key producing states		Southern states like Ogun, Oyo, Ondo, Osun, Ekiti, and the Niger Delta region
Major constraints		• Scarcity of high quality cassava stem cuttings • Low productivity hence poor ROI for farmers • Lack of intermediate storage systems/facilities • Low development of processing firms • Fixed export market annual quota of 145,000 MT by African Caribbean Pacific countries into EU
Key supply chain drivers and location		• Nigeria Starch Mills IhialaAnambra, Matna Foods Akure, Thai, Farms Ososa, Flour Mills of Nigeria Lagos • IITA, FUNAAB (CAVA), Federal College of AgriAkure • Retail outlets nationwide
Potential for project intervention	Value addition	• Processing of cassava into derivatives like glucose and fructose • Chips or pellets for animal feed • Food grade ethanol market
	Exports	• EU chips and pellets market which is currently 90% served by Thailand • Cassava starch into Asian markets
Possible areas of intervention	Productivity increase	Promote improved cassava varieties and management practices; more efficient systems for distribution of planting materials
	Value addition	Enhanced market linkages; aggregation; supply logistics; primary processing

SOYA

Aggregate demand/supply	Aggregate demand	700,000 MT
	Local production	550,000 MT
	Volume of imports	150, 000 – 200, 000 MT
	Value of imports	$250m per annum
Key producing states		Kano, Kaduna, Plateau, Benue, Bauchi, Nasarawa, Taraba, Katsina, and the FCT Abuja
Major constraints		• Lack of access to cost-effective production inputs and credit • Poor agricultural practices – lack of mechanization • Obsolete processing facilities • Low public acceptance of soya as meal option • Fragmented value chain and weak linkages with informal retailers
Key supply chain drivers and location		• Yakasai Oil Mills Kano, Fortune Oil Mills Kano, Sunseed Plc Zaria, Grand Cereals Jos, DA-ALLGREEN Seed Ltd Zaria • Megatech and Agro-Millers in Jos • African Holdings Commodity Exchange Abuja • Nigerian Commodity Exchange Abuja
Potential for project intervention	Value addition	• Introduction of improved varieties readily available from IAR, IITA and FUNAAB • Improved yields through GAP • Increased farmer margins to achieve higher impact on livelihoods • Investment in warehouses for storage guarantees price and supply stability • Improved offtake market coordination
	Import substitution	Focus is on industrial use, which is not as developed as in other countries.
Possible areas of intervention	Productivity increase	Promote improved soybean varieties and management practices; more efficient seed systems Enhanced market linkages; storage and warehousing; supply logistics.