

# AFRICAN DEVELOPMENT BANK



## ZAMBIA

### CASHEW INFRASTRUCTURE DEVELOPMENT PROJECT (CIDP)

#### OSAN DEPARTMENT

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October 2015

## TABLE OF CONTENTS

	<u>Page</u>
Currency Equivalents, Fiscal Year, Weights and Measures, Acronyms	i
Loan Information	ii
Project Summary	iii
Results Based Logical Framework (Project Matrix)	v
Project Time Frame/General Implementation Schedule	vi
<b>I. STRATEGIC THRUST AND RATIONALE</b>	<b>1</b>
1.1. Project Linkages with Country Strategy and Objectives	1
1.2. Rationale for Bank's Involvement	2
1.3. Donor Coordination	2
<b>II. PROJECT DESCRIPTION</b>	<b>3</b>
2.1. Project Objectives and Components	3
2.2. Technical Solutions Retained and Other Alternatives Explored	5
2.3. Project Type	6
2.4. Project Cost and Financing Arrangements	6
2.5. Project Target Area and Population	8
2.6. Participatory Process for Project Identification, Design and Implementation	8
2.7. Bank Group Experience and Lessons Reflected in Project Design	9
2.8. Project Performance Indicators	9
<b>III. PROJECT FEASIBILITY</b>	<b>10</b>
3.1. Economic and Financial Performance	10
3.2. Environmental and Social Impacts	10
3.3. Project - Fragility Analysis	12
<b>IV. IMPLEMENTATION</b>	<b>13</b>
4.1. Implementation Arrangements	13
4.2. Monitoring	16
4.3. Governance	17
4.4. Sustainability	17
4.5. Risk Management	18
4.6. Knowledge Building	18
<b>V. LEGAL INSTRUMENTS AND AUTHORITY</b>	<b>19</b>
5.1. Legal Instruments	19
5.2. Conditions Associated with Bank's Intervention	19
5.3. Undertakings	19
5.4. Compliance with Bank Policies	19
<b>VI. RECOMMENDATION</b>	<b>19</b>

### LIST OF APPENDICES

Appendix 1.	Zambia - Comparative Socio-economic Indicators
Appendix 2.	AfDB's Active Portfolio in Zambia
Appendix 3.	Projects Financed by the Bank and Other Cooperating Partners
Appendix 4.	Map of Zambia Showing the Project Area
Appendix 5.	Financial and Economic Analyses
Appendix 6.	Environmental Issues
Appendix 7.	Letter from Barotse Loyal Establishment (BRE) on Land Issues
Appendix 8.	Project Fragility Analysis

## Currency Equivalents

(July 2015)

1 UA	=	1.40639 USD
1 UA	=	10.56424 ZMW
1 USD	=	7.51160 ZMW

## Fiscal Year

1<sup>st</sup> January to 31<sup>st</sup> December

## Weights and Measures

1 metric tonne (t)	=	2,204 pounds (lbs)
1 metre (m)	=	3.28 feet (ft)
1 millimetre (mm)	=	0.03937 inch
1 kilometre (km)	=	0.62 mile
1 hectare (ha)	=	2.471 acres

## Acronyms and Abbreviations

AFD	....	Agence Française de Développement	MTR	....	Mid-Term Review
AfDB	....	African Development Bank	M&E	....	Monitoring and Evaluation
BRE	....	Barotse Royal Establishment	NAIP	....	National Agriculture Investment Plan
CAADP	....	Comprehensive Africa Agriculture Development Programme	NRDC	....	Natural Resources Development College
CIDP	....	Cashew Infrastructure Development Project	NRWSSP	....	National Rural Water Supply and Sanitation Project
CP	....	Cooperating Partners	OAG	....	Office of the Auditor General
CPIA	....	Country Policy and Institutional Assessment	O&M	....	Operation and Maintenance
CPPR	....	Country Portfolio Performance Review	PCU	....	Project Coordination Unit
CSP	....	Country Strategy Paper	PPP	....	Public-Private-Partnership
CSO	....	Central Statistical Office	PS	....	Permanent Secretary
DBSA	....	Development Bank of South Africa	PY	....	Project Year
EA	....	Executing Agency	Q1, Q2	....	Quarter 1, Quarter 2, 3 & 4
EIB	....	European Investment Bank	RISP	....	Regional Integration Strategy Paper
EIRR	....	Economic Internal Rate of Return	R-SNDP	....	Revised Sixth National Development Plan
ESMP	....	Environmental and Social Management Plan	SCCI	....	Seed Control and Certification Institute
EU	....	European Union	SESA	....	Strategic Environmental and Social Assessment
FAO	....	Food and Agriculture Organisation	UA	....	Unit of Account
FIRR	....	Financial Internal Rate of Return	UNDP	....	United Nations Development Programme
GoZ	....	Government of Zambia	USAID	....	United States Agency for International Development
HEST	....	Higher Education Science and Technology	USD	....	United States Dollars
HH	....	Household	WB	....	World Bank
IFAD	....	International Fund for Agriculture Development	WFP	....	World Food Programme
IFC	....	International Finance Corporation	ZARI	....	Zambia Agriculture Research Institute
JASZ	....	Joint Assistance Strategy for Zambia	ZEMA	....	Zambia Environmental Management Authority
JICA	....	Japanese International Cooperation Agency	ZMFO	....	Zambia Field/Country Office
MAL	....	Ministry of Agriculture and Livestock	ZMW	....	Zambia Kwacha

## Loan Information

### Client's information

<b>BORROWER:</b>	Republic of Zambia
<b>EXECUTING AGENCY:</b>	Ministry of Agriculture and Livestock
<b>IMPLEMENTING AGENCY:</b>	Ministry of Agriculture and Livestock

### Financing plan

Source	Amount (USD)	%age	Instrument
ADB	45.00 million	81.2%	Loan
Government	8.31 million	15.0%	N/A
Beneficiaries	2.11 million	3.8%	N/A
<b>Total Cost</b>	<b>55.42 million</b>	<b>100.0%</b>	

### Important Financial Information

Loan Currency	United States Dollars (USD)
Loan Type	Enhanced Variable Spread Loan
Interest Rate	Base Rate + Funding Cost Margin + Lending Margin
Base Rate	Floating Base Rate based on 6 month USD LIBOR with free option to fix the Base Rate.
Funding Cost Margin	The six months adjusted average of the difference between: (i) the refinancing rate of the Bank as to the borrowings linked to 6-month LIBOR and allocated to all its floating interest loans denominated in USD and (ii) 6-month LIBOR ending on 30 June and on 31 December. This spread shall apply to the 6-month LIBOR which resets on 1 February and on 1 August. The Funding Cost Margin shall be determined twice per year on 1 January for the semester ending on 31 December and on 1 July for the semester ending on 30 June.
Lending Margin	60 basis points (0.60%)
Commitment Charge/Fee	Not Applicable
Other fees	Not Applicable
Tenor	20 years, inclusive of Grace Period
Grace Period	5 years
FIRR, NPV (base case)	16%, NPV value at 10% is USD 31.5 million
EIRR, NPV (base case)	25%, NPV value at 10% is USD 58.6 million

### Timeframe - Main Milestones (expected)

Concept Note Approval (Regional Director)	22 <sup>nd</sup> May, 2015
Board Approval	4 <sup>th</sup> November, 2015
Effectiveness	December, 2015
Completion	September, 2020
Last Disbursement	June, 2021
Last Repayment	September, 2034

## **PROJECT SUMMARY**

1.1 **Project Overview:** The Cashew Infrastructure Development Project (CIDP) aims at reviving the cashew subsector and is one of the Government of Zambia's (GoZ) priority projects. The development goal is to contribute to country's economic growth and food security. The CIDP objective is to contribute to poverty reduction, improved household incomes through improved cashew production and processing. The Project will be implemented by the Ministry of Agriculture and Livestock (MAL), over a period of 5 years, in Mongu, Limulunga, Senanga, Kalabo, Nalolo, Sikongo, Shangombo, Sioma, Lukulu, and Mitete Districts of the Western Province. The 10 Districts were selected based on (i) high potential for cashew production, (ii) less frost problem, (iii) high incidence of poverty, food insecurity and malnutrition, and (iv) vulnerability to environmental degradation and climate change. The Project has 3 components: (1) *Support to Cashew Value Chain* with 3 sub-components, (i) irrigation infrastructure for cashew nurseries and clone gardens, (ii) cashew plantation rejuvenation and establishment, and (iii) infrastructure for cashew-processing and marketing; (2) *Capacity Building* with 3 sub-components, (i) training, (ii) technical support, and (iii) matching fund; and (3) *Project Management* with 2 sub-components, (i) project coordination, and (ii) monitoring and evaluation. Gender, social and environmental issues have been considered in all project activities. The Project cost is USD 55.42 million with ADB Loan of USD 45.00 million (81.2%), GoZ contribution of USD 8.31 million (15.0%) and beneficiaries contribution of USD 2.11 million (3.8%).

1.2 The Project will benefit 60,000 smallholder farmers including 30,000 (50%) women and 7,000 youths, each planting 1 ha (100 cashew trees). The Project will create about 6,000 full time jobs (3,000 women, and 1,000 youths) along cashew value chain from production, processing to marketing. At full maturity of the cashew trees, each farming household (with 1 ha) will have annual income of ZMW 2,223 (USD 429). The FIRR is estimated at 16.0% and NPV of ZMW 237 million (USD 31.5 million). The EIRR is 25% and NPV of ZMW 440 million (USD 58.6 million). To promote inclusive and green growth, CIDP will implement its activities, in a sustainable manner, and facilitate equitable allocation of resources to participating rural men, women and youths. Cashew trees will contribute to green growth with positive effects on environment.

1.3 **Needs Assessment:** While Zambia has made steady progress in attaining a middle income status, this has been predominantly mining-sector-led, job creation opportunities have been limited and income disparities between urban and rural areas have increased. In 2010, the bottom 50% of population accounted for 9.1% of total income, while the top 10% accounted for 52.6% of national income. Youth unemployment has worsened at around 25% and is reflected by low incomes earned. Agriculture Sector holds the majority of the working poor at 81% and accounts for 54% of informal jobs. In line with its strategy of economic diversification and job creation, GoZ launched a nationwide programme to scale-up agricultural development and diversification. The Zambia National Strategy on Industrialisation and Job Creation (2013) plans to create 1 million job by 2018. The Citizens Economic Empowerment Commission (CEEC) is GoZ's main vehicle for citizen empowerment. The National Cashew Development Strategy (2012-2016) was developed to revive investments in the cashew value chain which can create jobs, improve economic growth, household incomes, and also contribute to poverty reduction.

1.4 **Bank's Added Value:** The Bank has developed experience in satisfactory development of agricultural infrastructure. The CIDP design has been guided by the Bank's past and on-going experiences in Zambia. The value added by the Bank includes successful promotion of value chain development activities in agriculture infrastructure related to irrigation and livestock which are aimed at catalysing and optimising the Agriculture Sector's contribution to gross domestic product through job creation, increased productivity and market linkages. Lessons learnt from the Bank's involvement in Agriculture Sector include the need to involve beneficiaries in infrastructure selection, strategic siting, construction and management in order to enhance their ownership and sustainability which has been considered under CIDP.

1.5 **Knowledge Management:** Knowledge gained through implementation of previous projects has been used in designing CIDP. The CIDP will contribute to knowledge that will be generated through implementation and will be useful during design and management of future similar projects especially on how to (i) raise

cashew productivity and value addition, (ii) raise the competitiveness of the cashew value chain, (iii) raise the incomes of smallholder cashew farmers and processors, and (iv) expand and broaden employment and job creation. The gained knowledge will be documented through the baseline survey reports, policy research and reforms on cashew sector, progress reports, gender disaggregated impact evaluation reports, mid-term review report, beneficiary impact assessment report and project completion report. The Project will organise lessons learnt sessions and involve students of colleges and universities to research specific issues in the cashew value chain.

## RESULTS-BASED LOGICAL FRAMEWORK (PROJECT MATRIX)

<b>Country and Project Name:</b> Zambia: Cashew Infrastructure Development Project (CIDP).						
<b>Purpose of the Project:</b> To contribute to poverty reduction, improved household incomes and food security through improved cashew production and processing.						
RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		INDICATOR (INCLUDING CSI)	BASELINE	TARGET <sup>1</sup>		
IMPACT	1. Improved household income.	1.1 Average household income (USD per year).	<u>2015</u> 1.1 USD 364	<u>By 2023</u> 1.1 USD 710	Household survey.	
	OUTCOMES	2.1 Increased cashew tree productivity. 2.2 Increased foreign exchange earnings. 2.3 Improved rural employment.	2.1 Average cashew tree crop yield (kg/ha). 2.2 Average foreign exchange earnings, USD per year. 2.3 Total number of full-time jobs.	<u>2015</u> 2.1. (200 kg/ha) 2.2 (USD 0) 2.3. (0)	<u>By 2021</u> 2.1 (800 kg/ha) 2.2. (USD 8 million/year) 2.3. 6,000 (3,000 women and 1,000 youths)	Cashew crop forecasting survey. Market surveys. Project reports.
OUTPUTS	<b>3. Support to Cashew Value Chain</b> 3.1 Feeder Roads Rehabilitated. 3.2 Irrigation infrastructure established for cashew nurseries and clone gardens. 3.3 Existing cashew plantation rejuvenated. 3.4 Cashew plantation established. 3.5 Infrastructure for cashew-processing and market constructed.  <b>4. Capacity Building</b> 4.1 Training and support provided. 4.2 Technical support enhanced. 4.3 Matching fund disbursed. 4.4 Gender responsiveness enhanced. 4.5 Improved women's participation and decision making skills in nurseries management.  <b>5. Project Management</b> 5.1 Project management improved. 5.2 M&E system established.	3.1 Rural feeder road rehabilitation (km) 3.2.1 No of core nurseries and other structures at ZARI/ Simulumbe (rehabilitation) 3.2.2 No of clone gardens. 3.2.3 No of demonstration nurseries (>40% for women farmers and 2% for youths). 3.2.4 No of community nurseries (>40% for women farmers and 2% for youths). 3.3.1 Canopy re-establishment of existing plantation (ha). 3.3.2 Rehabilitation of existing plantation (ha). 3.4.1 Replanting the bare existing areas within old cashew plantations (ha). 3.4.2 Establishment of new cashew farms (ha) (>20% for women farmers and 10% for youths). 3.5 Construction of (i) cashew processing and marketing cluster factory (gender sensitive); (ii) community collection and sorting sheds; (iii) cashew bulking facilities; and (iv) District cashew cluster centres (No). 4.1 Various training activities (no), 50% women participants, and 10% youths. 4.2.1 Gender sensitive technical support in adaptive research (No). 4.2.2 Gender sensitive market research and development study (No). 4.3 Demand driven matching fund disbursed (USD million), >40% women beneficiaries. 4.4 Training sessions on gender for stakeholders (No). 4.5 % of women in nurseries and management structures 5.1 Establishment of PCU (No). 5.2.1 Establishment of M&E system (No). 5.2.2 Sex-disaggregated baseline survey (No)	<u>(2015)</u> 3.1 (0) 3.2.1 (1) 3.2.2 (2) 3.2.3 (3) 3.2.4 (2) 3.3.1 (0) 3.3.2 (0) 3.4.1 (0) 3.4.2 (0) 3.5 (i) 0; (ii) 0; (iii) 0; and (iv) 0. 4.1 (0) 4.2.1 (0) 4.2.2 (0) 4.3 (0) 4.4 (0) 4.5 (0) 5.1 (0) 5.2.1 (0) 5.2.2 (0)	<u>(2020)</u> 3.1 (217) 3.2.1 (1) 3.2.2 (10) 3.2.3 (6) 3.2.4 (10) 3.3.1 (2,000ha) 3.3.2 (8,000ha) 3.4.1 (7,000) 3.4.2 (53,000) 3.5 (i) 1; (ii) 4; (iii) 4; and (iv) 4. 4.1 (60) 4.2.1 (1) 4.2.2 (1) 4.3 (USD 2 million) 4.4 (4) 4.5 (30%) 5.1 (1) 5.2.1 (1) 5.2.2 (1)	Project Progress Reports.	<b>Risk #1:</b> Cashew producing areas are prone to bush fires. <b>Mitigation #1:</b> Cashew farmers will be trained in proper management of cashew plantations including fire prevention techniques.  <b>Risk #2:</b> Improper use of agro-chemicals leading to health hazards. <b>Mitigation #2:</b> Beneficiaries will be trained in integrated pest management techniques including safety features.  <b>Risk #3:</b> Poor sustainability of infrastructure. <b>Mitigation #3:</b> Establish management entity of infrastructures.
	KEY ACTIVITIES	<b>Components</b>				<b>Inputs</b>
<b>Component 1: Support to Cashew Value Chain:</b> Sub-component 1.1 Irrigation Systems for Cashew Nurseries and Gardens; 1.2 Cashew Plantation Rejuvenation and Establishment, and 1.3 Infrastructure for cashew-processing and Marketing. Component 1 cost: USD 41.67 million (75.2%). <b>Component 2: Capacity Building:</b> Sub-component 2.1 Training, 2.2 Technical Support; and 2.3 Matching Fund. Component 2 cost: USD 7.26 million (13.1%). <b>Component 3: Project Management:</b> Sub-component 3.1 Project Coordination; and 3.2 Monitoring and Evaluation. Component 3 cost: USD 6.49 million (11.7%).				<b>Project Cost: USD 55.42 million.</b>  <b>ADB Loan:</b> USD 45.00 million (81.2%). <b>Government:</b> USD 8.31 million (15.0%). <b>Beneficiaries:</b> USD 2.11 million (3.8%).		

<sup>1</sup> Unless stated, for the outcome and output, the Project is targeting at least 50% of the beneficiaries to be women.

## PROJECT TIME FRAME/GENERAL IMPLEMENTATION SCHEDULE<sup>2</sup>

No	Description of Activities	2015				2016				2017				2018				2019				2020				2021			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
0.0	Loan Signature, Ratification and Effectiveness			Govt																									
1.0	<b>Component 1: Support to Cashew Value Chain</b>																												
1.1	Irrigation Infrastructure for Cashew Nursery and Gardens																												
	Rehabilitation of feeder roads																												
	Establish Main Nursery at ZARI-Simulumb e																												
	Establishment of Clone Gardens																												
	Establishment of Public Demonstration Nurseries																												
	Establishment of Community Nurseries																												
1.2	Cashew Plantation Rejuvenation and Establishment																												
	Canopy Re-establishment																												
	Rehabilitation of Existing Plantations																												
	Re-planting Bare Areas (within old areas)																												
	Establishment of New Farms																												
1.3	Infrastructure for Agro-Processing and Marketing																												
	Construction of Cashew Processing Factory																												
	Construction of Community Collection/Sorting Sheds																												
	Construction of Cashew Bulking Facilities																												
	Construction of District Cashew Cluster Centres																												
2.0	<b>Component 2: Capacity Building</b>																												
2.1	Training																												
	Community awareness/mobilisation																												
	Staff, Farmers and Cashew Processors Training																												
	Farmer Training																												
2.2	Technical Support																												
	Institutional Support																												
	Environmental and Social Issues																												
2.3	Matching Fund																												
	Sensitisation/Awareness Campaign																												
	Matching Fund Activities																												
3.0	<b>Component 3: Project Management</b>																												
3.1	Project Coordination																												
	Project Implementation																												
	Annual Financial Audit																												
	Bank Supervision Missions																												
3.2	Monitoring and Evaluation																												
	Development and Operation of M&E system																												
	Annual Work Plans and Budgets																												
	Mid-Term Review (MTR)																												
	Beneficiary Impact Assessment (BIA)																												
	Project Completion Report (PCR)																												
	Progress Review Meetings (Provincial and Districts)																												

Note: Q1 = First Quarter (January, February, March); Q2 = Second Quarter (April, May, June); Q3 = Third Quarter (July, August, September) and Q4 = Forth Quarter (October, November, December)

<sup>2</sup> This is a general Project implementation schedule. Consequently, the detailed annual work schedule will be developed before the beginning of each Project year.



## **REPORT AND RECOMMENDATION OF THE MANAGEMENT TO THE BOARD OF DIRECTORS ON PROPOSED LOAN FOR THE ZAMBIA CASHEW INFRASTRUCTURE DEVELOPMENT PROJECT (CIDP)**

Management submits the following Report and Recommendation of an ADB Loan proposal of USD 45.00 million from the Bank resources to finance the Cashew Infrastructure Development Project (CIDP) in Zambia.

### **I. STRATEGIC THRUST AND RATIONALE**

#### **1.1. Project Linkages with Country Strategy and Objectives**

1.1.1. In Zambia, the cashew trees were first introduced, in 1940s, by the Portuguese traders in Barotseland (Western Province) which is characterized by Kalahari sandy soils that are relatively poor for most conventional crops. In order to diversify the economic base of the poor households in the Western Province, the Government of Zambia (GoZ) promoted the planting and processing of cashew trees in the 1980s. However, the growth of the cashew industry was very slow due to low production and lack of marketing and processing facilities. In 1985, the Zambia Cashew Company (ZCC) was established with financial support from Zambia Industrial and Mining Corporation (ZIMCO), Zambia National Provident Fund, Zambia State Insurance Corporation, Commonwealth Development Corporation, British Oxygen, and British Petroleum Africa. The cashew industry grew rapidly from 1986 to 1992 with the maximum production of 155 tonnes during 1991/1992 growing season but declined to 20 tonnes (1995/1996) due to (i) sudden withdrawal of financial support by the shareholders to the ZCC, (ii) premature inclusion of the ZCC on the privatization list in 1995, (iii) dissolution of ZIMCO in 1995 at a time the cashew trees were still at their infancy stage, and (iv) limited financial capacity of the Western Cashew Industries Limited Ltd which took over ZCC from Zambia Privatization Agency. During Project preparation, it was noted that there were only 2 cashew processing companies namely Western Cashew Industries Limited and Barotse Cashew Company Limited which have total estimated capacity to process 780 tonnes of raw cashew nuts per annum. Based on the existing average cashew nut production level of 50 tonnes per annum, the 2 processing facilities are heavily underutilized. Consequently, the 2 existing companies are forced to order raw cashew nuts, from Tanzania, for processing in order to sustain their businesses. Even the imported raw cashew nuts, are not adequate to satisfy the existing processing capacity. In order to revive the cashew industry especially at production level, the GoZ developed the National Cashew Development Strategy (NCDS: 2012-2016). In 2012/2013, the GoZ and Citizens Economic Empowerment Commission (CEEC) financed (i) importation of cashew scions from Mozambique, and (ii) establishment of cashew nurseries. The Cashew Growers Association of Zambia (CGAZ), member of the African Cashew Alliance, drafted the Cashew Development Initiative (2014) with the aim of improving the cashew industry. Due to the potential economic and environmental benefits of cashew industry, the GoZ included the Cashew Infrastructure Development Project (CIDP) on the priority list of the 2015-2017 pipeline projects. The CIDP is aimed at reviving the cashew industry by focusing on infrastructure development for the cashew value chain encompassing production, processing and marketing.

1.1.2. The GoZ's overall development agenda is articulated in the Revised Sixth National Development Plan (R-SNDP: 2013-2016). In the Agriculture Sector, the GoZ aims to enhance crop production and productivity, diversification, value addition, and market integration. The GoZ has been implementing policy and institutional reforms of the Agriculture Sector which culminated in the development and adoption of the National Agriculture Policy (NAP: 2011-2015). The NAP (2011-2015) provides an overarching framework for the Agriculture Sector. The GoZ launched the National Agriculture Investment Plan (NAIP: 2014-2018) within the framework of the Comprehensive Africa Agriculture Development Programme (CAADP) with emphasis on pro-poor agricultural-led economic

development. This will be realized through re-orientation of policy and legislative environment to make it supportive to pro-poor agricultural development that targets poverty reduction. The CIDP is aligned to Zambia's R-SNDP (2013-2016), NAP (2011-2015), National Cashew Development Strategy (2012-2016), National Gender Policy (2000), Gender Strategy (2014–2016), National Strategy on Industrialization and Job Creation (2013) through infrastructure development for cashew value chain, improvement of cashew production, focus on pro-poor growth, gender mainstreaming, capacity building, income generation and job creation, respectively. The Project is aligned to the Bank's Country Strategy Paper (2011-2015) Pillar I (*Supporting Economic Diversification through Infrastructure Development*) through infrastructure development for cashew value chain.

## **1.2. Rationale for Bank's Involvement**

1.2.1. Cashew is one of the 5 priority crops highlighted in the Bank's Agriculture and Agribusiness Strategy (2015-2019) others being coffee, cocoa, cotton and cassava. The Strategy (2015-2019) is articulated around 3 mutually reinforcing focus areas (i) agriculture infrastructure, (ii) agribusiness and innovation, and (iii) resilience of natural resources which have been considered in Project design. Above that, gender equality, youth empowerment, climate change, and private sector participation have been mainstreamed in the Project activities. Considering the existing problem of low supply of good quality raw cashew nuts in Western Province, apart from cashew infrastructure development, the Project will also enhance cashew productivity and production. The Bank's comparative advantage and added value is derived from its cumulative experience and positive achievements in the implementation of Agriculture Sector operations in Zambia and other Regional Member Countries. The Bank is among the main and active Cooperating Partners (CPs) involved in the Agriculture Sector in Zambia and has been supporting the R-SNDP (2013-2016) and the NAIP (2014-2018). The CIDP will further strengthen and consolidate gains achieved from similar agriculture-related value chain development interventions. Some notable Bank-funded operations, in Zambia, include Small-scale Irrigation Project (SIP), Agriculture Sector Investment Programme (ASIP), Lake Tanganyika Integrated Regional Development Programme (PRODAP), Livestock Infrastructure Support Project (LISP), GAFSP funded-Agriculture Productivity and Market Enhancement Project (APMEP), and Pilot Programme on Climate Resilience (PPCR).

1.2.2. The Project is aligned to one of the Bank's Ten Year Strategy (TYS: 2013-2022) core operational areas of infrastructure and also areas of special emphasis namely agriculture and gender in that it will enhance cashew infrastructure development, cashew production, household income, food security and gender mainstreaming. Gender mainstreaming is also in line with Pillar II of the Gender Strategy (2014-2018). In addition, the Project will promote green growth by improving ground cover through cashew plantations while ensuring inclusiveness of rural men, women and youths as direct beneficiaries. Although CIDP is a national project, by putting 60,000 ha of land under cashew (on land which is not suitable for most conventional crops), it will contribute significantly to the greening of the environment which is considered as a cross cutting issue under the Southern Africa Regional Integration Strategy Paper (RISP: 2011-2015). The Project will improve Private Sector participation in cashew processing, marketing, and skills development for infrastructure management. The Zambia comparative socio-economic indicators are reflected in Appendix 1. Appendix 2 presents the Bank's active portfolio, in Zambia, which justifies the continued support to the Agriculture Sector.

## **1.3. Donor Coordination**

1.3.1. The Bank engages in dialogue with CPs under the guidance of the aid effectiveness principles embodied in the Paris Declaration and Accra Agenda for Action. To facilitate this dialogue, the CPs have signed a Joint Assistance Strategy for Zambia II (JASZ II: 2011-2015) that outlines the necessary actions needed to improve mutual accountability, aid effectiveness and management of official development aid. The division of labour matrix allows CP coordination of streamlined efforts at sector

level. The Agriculture Sector CP Group comprises EU, FAO, Finland, AfDB, JICA, World Bank, WFP, IFAD, USAID, Sweden and Norway. The CPs played a key role in the design of the NAIP (2014-2018).

1.3.2. The main milestones of Bank's participation in the aid coordination framework are (i) approval of 2 co-financed projects Kazungula Bridge Project with JICA and Nacala Road Corridor Project Phase II with EU, AFD and EIB, (ii) signing of JASZ II, (iii) joint management of the Small-scale Irrigation Project (SIP/Finland), (iv) implementation of the National Rural Water Supply and Sanitation Project (NRWSSP) (Denmark and GTZ), (v) design of the PPCR (WB, UNDP and IFC), (vi) design of Higher Education Science and Technology (HEST) Project (Netherlands, JICA, Denmark), (vii) Poverty Reduction Budget Support (PRBS) with various CPs, and (viii) Itezhi Tezhi hydro-power generation and transmission line project (EIB, DBSA and AFD). The Bank, in Zambia, is active in the agriculture, education, energy, environment and natural resources, transport sectors, PRBS, HEST, Private Sector, manufacturing and macroeconomics working groups. In recognition of the significance of non-traditional donors, the Bank has continued to strengthen its cooperation with non-OECD<sup>3</sup> donors such as Brazil and China. The CPs' support is summarised in Table 1.1 and the current CPs' projects are indicated in Appendix 3.

Table: 1.1 Donor Support to Agriculture (2014)

Sector or subsector*	Size			
	GDP	Exports	Labour Force	
Agriculture (including fisheries and forestry)	21%	20%	67%	
<b>Players - Public Annual Expenditure (average) : 2014 Budget</b>				
	<b>Government</b>	<b>Donors</b>	AfDB 23.4%	FAO 0.1% Finland 3.4%
UA m	<b>UA 424.0 m</b>	<b>UA 104.0 m</b>	WB 34.3%	JICA 2.4% USAID 7.9%
%	<b>75.5%</b>	<b>24.5%</b>	EU 4.7%	WFP 3.3% Norway 1.0%
			DFID 2.1%	IFAD 17.4%
<b>Level of Donor Coordination</b>				
Existence of Thematic Working Groups (this sector/sub-sector)			<b>[Yes]</b>	
Existence of SWApS or Integrated Sector Approaches			<b>[No]</b>	
ADB's Involvement in Donors Coordination			<b>[Member but not leader]</b>	

## II. PROJECT DESCRIPTION

### 2.1. Project Objectives and Components

The development objective is to contribute to economic growth and food security. The Project objective is to contribute to the country's poverty reduction and improved household incomes through improved cashew production, processing and marketing. Enhanced household incomes will lead to improved household food security. The Project will (i) increase cashew tree productivity and production, (ii) contribute to improved household income and food security, (iii) increase foreign exchange earnings from cashew products, and (iii) improve rural employment for men, women and youths. CIDP has 3 components as summarised in Table 2.1.

<sup>3</sup> OECD - Organisation for Economic Co-operation and Development.

Table 2.1: Description of Project Components and Sub-components

Notes: i. Unless stated otherwise, for each activity, the Project is targeting at least 50% of the beneficiaries to be women.  
ii. Details of the activities are provided in Project Appraisal Report Volume II Technical Annex C.2.

No	Component Name	Cost (USD million) and % allocation	Sub-Component Description, Costs (USD million) and % allocation
1	Support to Cashew Value Chain	<b>USD 41.67 (75.2%)</b>	<p><u>Sub-component 1.1: Infrastructure for Cashew Nursery and Clone Gardens (USD 26.09 million, 47.1%)</u></p> <ul style="list-style-type: none"> <li>Rehabilitate 217 km access roads in support of key cashew infrastructures and basic social services.</li> <li>Develop 1 irrigation system including civil works for main cashew nursery at ZARI-Simulumbe Station.</li> <li>Renovate 1 set of existing structures at ZARI-Simulumbe Station.</li> <li>Develop 8 irrigation systems including civil works for clone-gardens and associated structures.</li> <li>Develop a total of 3 irrigation systems including civil works for public demonstration nurseries, located at (i) Namushakende, (ii) Nangwesi, and (iii) Kalabo Farmer Training Centres (FTCs). This activity will include partial/selective renovation of existing structures at the 3 FTCs.</li> <li>Develop 8 irrigation systems including civil works for community nurseries and associated structures.</li> <li>Establish 50 community demonstration cashew plots, max 1 ha each.</li> <li>Develop inventory and tender documents for rural feeder roads to be rehabilitated.</li> <li>Produce designs and tender documents for all cashew infrastructure to be constructed/rehabilitated by the Project.</li> </ul> <p><u>Sub-component 1.2: Cashew Plantation Rejuvenation and Establishment (USD 12.95 million, 23.4%)</u></p> <ul style="list-style-type: none"> <li>Re-establish canopy of existing cashew plantations (a proportion of existing potential cashew trees will be rehabilitated through top working with improved clones) (2,000 ha).</li> <li>Rehabilitate existing cashew plantations (8,000 ha).</li> <li>Replant the bare existing areas within the existing old cashew plantations (7,000 ha).</li> <li>Establish new cashew farms/plantations (43,000 ha) including appropriate fire breaks and infrastructure.</li> </ul> <p><u>Sub-component 1.3: Infrastructure for Cashew Processing and Marketing (USD 2.63 million, 4.7%)</u></p> <ul style="list-style-type: none"> <li>Support and facilitate the linkage of cashew farmers/producers to Private Sector cashew processors.</li> <li>Construct 3 community cashew collection and sorting sheds.</li> <li>Construct 4 District cashew bulking facilities/cluster centres to facilitate bulk collection of produce.</li> <li>Develop 1 Cashew Market Information System (CMIS).</li> <li>Construct 2 private sector led and 2 community-based cashew processing facilities through <i>Matching Funds</i> (ref to sub-component 2.3, below).</li> <li>Establish 10 cashew nurseries through <i>Matching Funds</i> (ref to sub-component 2.3, below).</li> <li>Conduct 1 gender-sensitive market research and development study.</li> <li>Facilitate linkages among cashew value chain operators and other stakeholders for trade facilitation.</li> <li>Facilitate development of National Cashew Quality and Safety Standards through Zambia Bureau of Standards.</li> </ul>
2	Capacity Building	<b>USD 7.26 (13.1%)</b>	<p><u>Sub-component 2.1: Training (USD 1.94 million, 3.5%)</u></p> <ul style="list-style-type: none"> <li>Conduct training needs assessment (TNA).</li> <li>Conduct GoZ staff training (project-related) including materials.</li> <li>Conduct training for cashew processors.</li> <li>Conduct smallholder farmers training.</li> <li>Conduct 1 (international) farmers/staff study tour to Mozambique and 1 to</li> </ul>

No	Component Name	Cost (USD million) and % allocation	Sub-Component Description, Costs (USD million) and % allocation
			<p>Tanzania (max 2 international tours).</p> <ul style="list-style-type: none"> <li>Conduct 4 inter-District (local) farmers/staff study tours.</li> </ul> <p><u>Sub-component 2.2: Technical Support (USD 2.83 million, 5.1%)</u></p> <ul style="list-style-type: none"> <li>Develop 1 quality control management system to enhance product marketing (parameters: % moisture content, ratio of whole seed to broken seed, % impurities, nutrient contents etc).</li> <li>Assess the gender roles along the cashew value chain.</li> <li>Support gender mainstreaming activities.</li> <li>Support Seed Control and Certification Institute (SCCI), for quality cashew seedlings.</li> <li>Support Natural Resources Development College (NRDC) to produce cashew focus curriculum.</li> <li>Support University of Barotseland to establish cashew focus curriculum.</li> <li>Support ZARI to carryout gender sensitive cashew adaptive research.</li> <li>Recruit 1 Cashew and Agro-Processing Expert (Technical Assistance).</li> <li>Recruit 1 Gender Specialist.</li> <li>Recruit 1 Environmental Specialist (short-term consultant).</li> <li>Implement environmental and social issues including mitigation measures.</li> </ul> <p><u>Sub-component 2.3: Matching Fund (USD 2.48 million, 4.5%)</u></p> <ul style="list-style-type: none"> <li>Awareness/sensitization campaigns about the Matching Fund.</li> <li>Refine/adapt 1 CEEC matching fund manual.</li> <li>Disburse USD 2.00 million in matching funds to support innovative and viable Private Sector and youth empowerment initiatives, along the cashew value chain.</li> <li>Recruit 1 Business Development and Management Specialist (short-term consultant).</li> </ul>
3	Project Management	<b>USD 6.49 (11.7%)</b>	<p><u>Sub-component 3.1: Project Coordination (USD 4.22 million, 7.6%)</u></p> <ul style="list-style-type: none"> <li>Establish and support the Project Coordination Unit (PCU) including recruitment of PCU staff.</li> <li>Facilitate annual financial audit.</li> <li>Establish and support activities of Project Steering Committee (PSC).</li> </ul> <p><u>Sub-component 3.2: Monitoring and Evaluation (USD 2.27 million, 4.1%)</u></p> <ul style="list-style-type: none"> <li>Prepare and operationalize Project Implementation Manual.</li> <li>Establish and operationalize gender sensitive participatory Monitoring and Evaluation (M&amp;E) system.</li> <li>Prepare Project annual work plans and budgets.</li> <li>Conduct Project progress review meetings.</li> <li>Conduct Baseline survey.</li> <li>Conduct Beneficiary Impact Assessment.</li> <li>Conduct Project Mid-Term and Completion/Technical Reviews.</li> </ul>
<b>Total</b>		<b>USD 55.42</b>	

## 2.2. Technical Solutions Retained and Other Alternative Explored

The technical solutions which were retained have been included in the Project design whilst other alternatives which were explored are indicated in Table 2.2.

Table 2.2: Other Alternatives Considered and Reason for Rejection

Alternative name	Brief description	Reasons for rejection
Channel funds through sector line Ministry	The Sector Ministry would raise cashew seedlings in nurseries, conduct research and train producers in cottage processing. Farmers would then sell the nuts to private sector processors.	Low access to and weak capacity of Sector Ministry extension services. Use of private and farmer association more sustainable. Support to local Private Sector is required to complete value chain.
Focus on developing cashew seedlings and distribution	The project would finance the development of community-level seedlings using extension services and private sector to increase production.	This would create a gap in the cashew value chain

### 2.3. Project Type

The CIDP is a stand-alone investment Project aimed at rejuvenating the cashew industry and enhancement of economic development in the Western Province.

### 2.4. Project Cost and Financing Arrangements

2.4.1 The Project cost, including physical and price contingencies, is USD 55.42 million (net of taxes and duties) which will be financed by (i) ADB Loan of USD 45.00 million (81.2%) covering all major Project activities, (ii) the GoZ contribution of USD 8.31 million (15.0%) through contribution of USD 6.14 million for rehabilitation of some feeder roads and in-kind monetary value for existing GoZ staff salaries, office space and utilities (USD 2.17 million), and (iii) beneficiaries in-kind contribution of USD 2.11 million (3.8%) through specific labour for cashew tree planting. The price contingencies were based on projected local and foreign inflation rates of 5% and 2% per annum, respectively. The physical contingencies ranged from 0% (GoZ staff salaries) to 10% (works) based on common technical practices. Summary of the Project costs by components, sources of financing, expenditure categories and schedule by component are presented in Tables 2.3 to 2.6 and the details are in Project Appraisal Report (PAR) Volume II Technical Annex B.2.

2.4.2 Justification for Government Level of Contribution: The GoZ's total contribution of USD 8.31 million represents about 15% of the total CIDP cost which is less than the recommended 50% minimum counterpart contribution as per the Bank's 2008 "*Policy on Expenditure Eligible for Bank Group Financing*". The policy further stipulates that the ADB may finance more than 50% of the total project costs on a case-by-case basis and up to a limit that does not exceed 100%. The GoZ submitted a request recommending the Bank to finance up to 85% of the CIDP cost. The overarching basis for this recommendation is that Zambia has recently qualified as a "Blend Country" with access to ADB funds and therefore is still in transition from an ADF country. This is similar to the transition framework that defines a period for countries graduating from ADF only to ADB only, as described in the ADF Resource Allocation Guidelines. The justifications for the reduced GoZ contribution is further rationalised on the following 3 considerations (a) GoZ's commitment to implement other development programmes, (b) country's financing allocation to the Agriculture Sector, and (c) the GoZ's budget situation and debt level, as elaborated in PAR Volume II Technical Annex B.2. In view this, there is a case for the Bank to reduce the GoZ's counterpart funding of this critical Project to 15%. It is expected that this amount will ensure requisite ownership by the authorities and expedite the Project's implementation process.

Table 2.3: Project Cost Estimates by Components (ZMW and USD '000)

Component Name	ZMW '000			USD '000			% Foreign Cost
	Local	Foreign	Total	Local	Foreign	Total	
1. Support to Cashew Value Chain	83,068.98	195,800.02	278,869.00	11,058.76	26,066.35	37,125.11	70
2. Capacity Building	35,819.90	14,120.00	49,939.90	4,768.61	1,879.76	6,648.37	28
3. Project Management	33,500.60	8,851.50	42,352.10	4,459.85	1,178.38	5,638.23	21
<b>Total Base Costs</b>	<b>152,389.48</b>	<b>218,771.52</b>	<b>371,161.00</b>	<b>20,287.22</b>	<b>29,124.49</b>	<b>49,411.71</b>	<b>59</b>
Physical Contingencies	3,265.93	18,518.08	21,784.01	434.78	2,465.26	2,900.04	85
Price Contingencies	13,796.62	9,515.80	23,312.42	1,836.71	1,266.81	3,103.52	41
<b>Total Project Cost</b>	<b>169,452.03</b>	<b>246,805.40</b>	<b>416,257.43</b>	<b>22,558.71</b>	<b>32,856.56</b>	<b>55,415.27</b>	<b>59</b>

Table 2.4: Sources of Financing (Amount in USD '000)

Source of Financing	Total Amount (USD '000) and Percentage Contribution (%)					
	Foreign		Local		Total	
	USD	%	USD	%	USD	%
ADB Loan	32,856.56	100.0	12,143.44	53.8	45,000.00	81.2
Government	-	-	8,304.06	36.8	8,304.06	15.0
Beneficiaries	-	-	2,111.21	9.4	2,111.21	3.8
<b>Total</b>	<b>32,856.56</b>	<b>59.3</b>	<b>22,558.71</b>	<b>40.7</b>	<b>55,415.27</b>	<b>100.0</b>

Table 2.5: Project Cost by Categories of Expenditure (USD '000)

Category of Expenditure	Total Amount (USD '000)			% Foreign Cost
	Foreign	Local	Total	
<b>A. Investment Costs</b>				
<b>1. GOODS</b>				
Vehicle	472.27	-	472.27	100
Equipment	1,273.73	298.21	1,571.94	81
Matching Fund	-	2,000.00	2,000.00	-
<b>Subtotal</b>	<b>1,746.00</b>	<b>2,298.21</b>	<b>4,044.21</b>	<b>43</b>
<b>2. WORKS</b>				
Road-works	6,320.89	5,234.57	11,555.46	55
Cashew Infrastructure	17,586.17	4,136.27	21,722.44	81
<b>Subtotal</b>	<b>23,907.06</b>	<b>9,370.84</b>	<b>33,277.90</b>	<b>72</b>
<b>3. SERVICES</b>				
Training	710.24	1,646.99	2,357.23	30
Technical Support	936.55	1,099.10	2,035.65	46
Survey	172.53	-	172.53	100
Audit	91.86	-	91.86	100
Consultancy - Other	1,560.25	-	1,560.25	100
<b>Subtotal</b>	<b>3,471.43</b>	<b>2,746.09</b>	<b>6,217.52</b>	<b>56</b>
<b>Total Investment Costs</b>	<b>29,124.49</b>	<b>14,415.14</b>	<b>43,539.63</b>	<b>67</b>
<b>B. Recurrent Costs</b>				
<b>1. OPERATING COST</b>				
Personnel-Govt Staff/NBF	-	1,924.54	1,924.54	-
Personnel-PCU Staff	-	1,612.71	1,612.71	-
Daily Subsistence Allowance	-	752.03	752.03	-
Operation and Maintenance	-	1,582.80	1,582.80	-
<b>Subtotal</b>	<b>-</b>	<b>5,872.08</b>	<b>5,872.08</b>	<b>-</b>
<b>Total Recurrent Costs</b>	<b>-</b>	<b>5,872.08</b>	<b>5,872.08</b>	<b>-</b>
<b>Total Base Costs</b>	<b>29,124.49</b>	<b>20,287.22</b>	<b>49,411.71</b>	<b>59</b>
Physical Contingencies	2,465.26	434.78	2,900.04	85
Price Contingencies	1,266.81	1,836.71	3,103.52	41
<b>Total Project Cost</b>	<b>32,856.56</b>	<b>22,558.71</b>	<b>55,415.27</b>	<b>59</b>

Table 2.6: Expenditure Schedule by Components (USD ‘000)

Component Description	Amount (USD ‘000)					
	PY1	PY2	PY3	PY4	PY5	Total
1. Support to Cashew Value Chain	2,501.62	20,591.38	9,500.66	4,263.86	267.59	37,125.11
2. Capacity Building	1,066.28	1,467.94	1,296.21	2,027.62	790.32	6,648.37
3. Project Management	1,545.32	801.34	837.29	1,698.07	756.21	5,638.23
<b>Total Base Costs</b>	<b>5,113.22</b>	<b>22,860.66</b>	<b>11,634.16</b>	<b>7,989.55</b>	<b>1,814.12</b>	<b>49,411.71</b>
Physical Contingencies	272.81	1,425.55	811.56	339.75	50.37	2,900.04
Price Contingencies	72.78	980.23	781.69	934.28	334.54	3,103.52
<b>Total Project Cost</b>	<b>5,458.81</b>	<b>25,266.44</b>	<b>13,227.41</b>	<b>9,263.58</b>	<b>2,199.03</b>	<b>55,415.27</b>

## 2.5. Project Target Area and Population

2.5.1. Project Areas: The potential for cashew production lies along the cashew hub in the Western Province (Barotseland). The Project will be implemented in 10 out of 16 Districts of the Western Province, namely Mongu, Limulunga, Senanga, Kalabo, Nalolo, Sikongo, Shangombo, Sioma, Lukulu, and Mitete (refer to Appendix 4) which were selected, during the Stakeholders’ Workshop, based on (i) high potential for cashew production, (ii) less frost problem, and (iii) high incidence of poverty, food insecurity and malnutrition. The infrastructure in the Western Province, like rural feeder roads etc, is generally very poor and the area has dominant Kalahari sandy soil that can hardly support conventional crops.

2.5.2. Project Beneficiaries: According to 2010 census, the Western Province has total population of 902,974 out of which 469,469 (52%) are female. The Province has high poverty level (80.4%<sup>4</sup>) and about 70% of those in the poor category are women. The primary beneficiaries of the Project are smallholder cashew farmers/producers and processors (farmer groups and Private Sector). The Project will directly benefit 60,000 smallholder farmers including 30,000 (50%) women and 7,000 youths, each planting 1 ha (100 cashew trees). The labour input for the farming operations is equivalent to 25,000 jobs. However, the Project will generate about 6,000 full time jobs (3,000 of which will be for rural women and 1,000 for youths) in cashew nursery, production, processing and marketing operations. The Project, through Matching Fund facility, will promote ownership by small-scale entrepreneurs of at least 10 cashew tree nurseries and 4 cashew processing facilities.

## 2.6. Participatory Process for Project Identification, Design and Implementation

2.6.1. The Project was identified through development of (i) Cashew Development Initiative (2014) by the CGAZ and (ii) NCDS (2012-2016). Based on the official request from GoZ, the Bank fielded a Project Identification Mission from 4<sup>th</sup> to 15<sup>th</sup> August 2014 which comprised staff from AfDB headquarters (HQ), Southern Africa Resource Centre (SARC) and Zambia Country Office (ZMFO). The Bank’s Project Preparation Mission was fielded from 9<sup>th</sup> to 27<sup>th</sup> March 2015 and Project Appraisal Mission from 22<sup>nd</sup> June to 3<sup>rd</sup> July 2015 which comprised staff from AfDB HQ, SARC and ZMFO and 2 consultants (Cashew Agronomist and Environmental Specialist). During preparation and appraisal missions, stakeholders’ consultations were undertaken at National, Provincial, District and community levels. During the 3 missions, the Bank’s ZMFO was instrumental in providing logistical support. All 3 Bank missions worked closely with the GoZ Technical Team. At National level, separate meetings were conducted with CPs, the Private Sector, Agro-NGOs, Zambia Bureau of Standards (ZBoS) and Senior GoZ Officials (including the Permanent Secretaries and Directors). At Provincial level, the missions held consultative meetings with key stakeholders including senior staff from Provincial and

<sup>4</sup> Living Conditions Monitoring Survey Report 2006 and 2010.



District offices, CPs, Private Sector including cashew nut processors, NGOs, CGAZ, University of Barotseland, ZBoS-Mongu Office, Farmer Training Institutes, and Barotse Royal Establishment (BRE). A Stakeholders' Workshop was organised, in Mongu District (March 2015), in order to select the Project Districts and also discuss CIDP design. At community level, both male and female farmers (cashew growers and cashew nut processors) were consulted and field visits were made to representative cashew plantations and nurseries.

2.6.2. Project implementation will be done through the existing GoZ decentralised structures. In line with the Project's capacity building sub-component, smallholder cashew growers (rural men, women and youth) and Private Sector cashew nut processors will fully be involved in planned activities including participatory monitoring and evaluation.

## 2.7. Bank Group Experience and Lessons Reflected in Project Design

In Zambia, the Bank has gained infrastructure development experience during design and implementation of completed and ongoing projects, namely, SIP, ASIP, PRODAP, LISP, PPCR, and APMEP in Zambia. The 2013 Country Portfolio Performance Review (CPPR) assessed the overall performance of the Zambia portfolio as *Satisfactory*, with Implementation Objectives and Development Outcomes of 2.19 and 2.52 respectively. The CPPR rated GoZ's performance as *Moderately Satisfactory* since there are challenges in existing project implementation including procurement, contract management, and monitoring & evaluation (M&E). The CPPR recommended that the Bank should continue improving portfolio quality through advisory services to project implementation agencies. To date, there is no project at risk. The overall supervision rating is NON-PP/NON-PPP. The CPIA rating is 3.58 for 2014 (4<sup>th</sup> Quintile). For Agriculture Sector, there is no PCR backlog for closed projects. The lessons learnt and actions taken during CIDP design are tabulated below:

No	Lessons Learnt	Actions incorporated in the Project design
1.	Lack of construction drawings at project start-up resulted in delay in implementation.	Drawings and tender documents for standard structures are available with the Government. Tender documents including construction drawings for remaining infrastructure will be prepared by Consultant in PY1.
2.	Role played by Project Implementation Unit in expediting project execution after start-up delay when management was entrusted in GoZ Department.	MAL's Project implementation capacity will be enhanced through recruitment of national Experts (who will form the PCU).
3.	Inadequate consultation with stakeholders in selection of sites results in poor siting of the infrastructure.	Adequate consultations with key stakeholders, including smallholder farmers were undertaken during Project identification, preparation and appraisal phases.
4.	Weak M&E system results in poor assessment of implementation progress	M&E activities with adequate financial allocation have been included in Project design.
5.	Lack of infrastructure management entities compromises sustainability.	Establishment of management entities has been included in Project design and the process will commence in PY1.

## 2.8. Project Performance Indicators

The Logframe's output, outcome and impact indicators will be monitored using the CIDP M&E system, as per sub-section 4.2. The impact indicator is average household income (USD) per annum. The outcome indicators are (i) average cashew tree crop yield (kg/ha), (ii) average foreign exchange earnings (USD) per year, and (iii) total number of full-time jobs created (50% for women). The main output indicators are indicated in the CIDP Logframe.

### III. PROJECT FEASIBILITY

#### 3.1. Economic and Financial Performance

3.1.1. Financial Analysis: At full maturity (that is, from the 6<sup>th</sup> year after planting), each household with a new 1ha-plantation (crop budget) will be making an income of ZMW 3,223 (USD 429) per year. This is made up of ZMW 1,995 profit and imputed labour fees of ZMW 1,227 which represents 69 person-days (if provided by the household). This works out to ZMW 46.71 per person-day compared to the going rate ranges between ZMW 10.00 and ZMW 17.50 within the Project area. The analysis at the Project level has been carried out by comparing the Project cost, on-farm cashew crop establishment and operational costs with the benefits, over a project life of 30 years. It is estimated that the Project (60,000 ha) will be producing 46,400 tonnes of raw cashew nuts which will generate ZMW 232 million (USD 30.9 million) per annum at its full operational level, thus from 10<sup>th</sup> year onwards. The discounted cash flow (DCF) analysis carried out on the net cash-flow gave a Financial Internal Rate of Return (FIRR) of 16% with financial Net Present Value (NPV) of ZMW 237 million (USD 31.5 million), at a discount rate of 10%. In addition to this, other benefits such as employment generation, environmental benefits from the reforestation, and spin off effects of the investment to boost local economy, which could not be quantified, further justifies the financing of the Project.

3.1.2. Economic Analysis: The DCF analysis carried out on the net cash-flow gave an Economic Internal Rate of Return (EIRR) of 25%. The economic NPV for the Project is estimated at ZMW 440 million (USD 58.6 million), at a discount rate of 10%.

3.1.3. Sensitivity Analysis: was carried out, under two assumptions (a 10% increase in project cost and a 10% shortfall in revenues), which showed that both EIRR and FIRR are sensitive to change in prices and, to some extent, cost variation, as indicated in Appendix 5.

FIRR, NPV (base case)	16% : USD 31.5 million
EIRR, NPV (base case)	25% : USD 58.6 million

*Note: detailed calculations and assumptions are available in Appendix 5 and PAR Volume II, Technical Annex B.7.*

#### 3.2. Environmental and Social impacts

3.2.1. Environment Issues: According to the Bank's Environmental and Social Assessment Procedures (ESAP), the CIDP was classified as Category II and was validated on 6<sup>th</sup> November 2014. The Project's potential negative environmental impacts will be localized, minimal, short term, manageable, reversible and can be mitigated. The Project will mainly focus on rejuvenating the existing cashew trees and planting new cashew trees within the existing cashew hub. The infrastructure to be developed will be small-scale in nature and will not induce any potential, significant or irreversible environmental and social impacts. Irrigation systems, for nurseries, will utilise groundwater which is readily available due to recharge from perennial Barotse plain and Zambezi River. CIDP will focus on handling and use of agricultural chemicals and also promote integrated pest management. The Strategic Environmental and Social Assessment (SESA) report including Environmental and Social Management Plan (ESMP) were produced by the Environmental Specialist (Consultant) in June 2015. The SESA summary was cleared by the Bank, for disclosure, on 29<sup>th</sup> June 2015. The Project has allocated USD 143,000 from ADB Loan resources for mitigation measures including training of staff and farmers. The said allocation is in addition to the amounts which will be included in the Contractors' civil works contracts (Bills of Quantities) for mitigation measures. Additional information on environmental issues is in Appendix 6 and also in PAR Volume II Technical Annex B.8.

3.2.2. Climate Change: According to country assessments carried out under the PPCR, Western Province is prone to a wide range of climatic risks such as floods, short rains and dry spells. These risks negatively affect agricultural production, surface water quantity and quality, human health and energy.

The Project will promote and contribute to building climate change resilience and promote adaptation technology that will improve agricultural production, household income and food security. CIDP will develop the existing and new cashew plantations (total 60,000 ha) which will (i) contribute to green growth with positive effect on the environment, and (ii) sequester carbon dioxide from being released to the atmosphere as greenhouse gases. Consequently, the Project will evaluate the possibility of benefitting from the Clean Development Mechanism (CDM) or Voluntary Carbon Credits (VCM) through the carbon credits earned from the reforestation activities. Cashew plantations will also help to control floods and land degradation. CIDP will collaborate with the PPCR which is currently supporting the climate-proofed infrastructure in Western Province.

3.2.3. Land Issues: Land ownership in Western Province falls within customary land or state land categories, with freehold and leasehold tenure systems. The state land is leased to individuals through a title deed (leasehold) for maximum period of 99 years, and the leaseholder pays annual ground rent to the State. Customary land ownership is most common in Western Province (Barotseland) and is held in-trust by the “King of the Barotse people” (*Litunga*). Individual people acquire land through the village chief (*Induna*) who represents the *Litunga*. The land owners’ heirs can inherit it but they cannot sell, transfer or assign any customary land without the consent of the *Litunga* or the King’s council (*Kuta*). Land is fundamental to the lives of smallholder farmers especially women and youth since when insufficient attention is given to secure land access, they might not be willing to invest their resources into the planned activities. In relation to the CIDP, during Project preparation, the Task Team held fruitful discussions on land issues with both the GoZ and Barotse Royal Establishment’s (BRE) *Kuta*. Both the GoZ and the *Kuta* made assurance that access to land and associated security would not be a constraint to any farmer/cashew producer wishing to expand the area under cashew trees. This was confirmed in writing by the BRE, as reflected in Appendix 7. Considering that land tenure security is important for intensive cashew production and also proper land management, apart from the BRE letter, the Project in consultation with BRE, GoZ, and farmer groups, will strengthen the smallholder farmers’ access to land and their ability to better manage it by properly documenting all land which has been allocated to them.

3.2.4. Gender: Feminization of poverty remains the broad characteristic of Zambian poverty profile and statistics show that of the 68% poverty levels, 80% of these are women mainly small-scale farmers. In cashew industry, women are mainly involved in the lower scales of the value chain and mostly collection and mechanically crashing the cashew nuts (50% at production and 90% at processing levels) while men are responsible for the actual farm management and all other tasks. Lack of gender equality limits a woman farmer’s access to agricultural inputs, credit services and markets. Taking into account the specific constraints faced by women in the cashew sub-sector, the gender mainstreaming strategy in the Project will focus on increasing access to planned activities for women as well as increasing their participation in implementation, community representation and decision making.

3.2.5. CIDP will support both male and female households with deliberate efforts to reach out, build capacity and empower about 30,000 women beneficiaries through: (i) promoting their access to land for the new cashews/plantations, (ii) ensuring equitable access to financial and technical resources as well as extension and advisory services (Matching Fund, etc.), (iii) strengthening formalization of women-led cooperatives and connect them to formal markets and service providers within the cashew value chain, (iv) ensuring women's involvement in community nurseries management, the community-based and Private Sector management structures through community-level decision making and gender-adapted training, (v) strengthening women’s access to information technologies, (vi) ensuring the construction/rehabilitation of cashew infrastructure with gender sensitive designs such as special sanitation facilities to positively improve the welfare of women, and (vii) easing access to gender-sensitive technologies, (mobile phones, etc). The Project will promote equal access for women in training sessions/study tours. The Project will advise the University of Barotseland and Natural Resources Development College to train more female agriculture students. The Project will also

strengthen the capacity for gender mainstreaming of the Project Coordination Unit (PCU), agriculture camp staff and MAL Gender focal point. The monitoring of gender activities will be ensured by a Gender Specialist (Consultant) based at the PCU. CIDP will devise gender monitoring and results tracking system to assess the impact on women. Although women will participate and benefit from all Project activities, aggregate funds allocated to their specific activities are about USD 15.76 million.

3.2.6. Social: The social impact of the CIDP is expected to be positive since it will (i) enhance gender-balanced household incomes and improve livelihoods for rural men, women and youth participating in the cashew value chain, (ii) create jobs in the rural areas for men, women and youth, (iii) generate foreign exchange from export of cashew kernels, (iv) enhanced economic value of marginal lands which have poor fertility (Kalahari sands), and (v) rehabilitate rural feeder road network within the Kalahari sands which will improve vehicle-tyre traction, agro-trade, and also provide access to amenities like schools, hospitals etc. The increased economic activities will boost local development and generate positive multiplier effects on social stability by retaining the youth, within Western Province, who could have otherwise migrated to cities/urban areas. HIV/AIDS is a social, economic and health problem. CIDP will use the existing MAL HIV/AIDS campaign messages which will be distributed to all Project beneficiaries including consultants and contractors.

3.2.7. Inclusive Growth: In the context of broad-based and pro-poor growth, the Project will promote inclusive growth with equitable allocation of resources to activities which will benefit all levels of the participating communities. In particular, CIDP will be implemented in Western Province which (i) is the poorest province in Zambia, (ii) is frequently affected by drought, (iii) has poor Kalahari sandy soils, (iv) has food shortages during some months of the year, and (v) is delinked from markets. The Project will assist poor rural men, women and youth to own cashew trees for enterprise diversification, job creation, and income generation. The cashew-processing activities will allow rural men, women and youth including Private Sector to participate in off-farm activities including marketing.

3.2.8. Transition to Green Growth: The Project is designed to contribute to green growth through planting of perennial cashew trees which will provide soil cover, stabilise the soil, ensure environmental conservation, and increase cashew production.

3.2.9. Value Addition: The Project has adopted full value chain approach to the rejuvenation of cashew industry by linking the cashew production (*50% farmer groups, 30% Public Sector and 20% Private Sector*), cashew processing (*30% farmer groups and 70% Private Sector*) and marketing (*100% Private Sector*) which will enhance Public-Private Partnership (PPP). The Project will facilitate establishment of (i) cottage cashew processing facilities which will be managed by rural farmers groups and (ii) cashew processing factories which will be owned by Private Sector in order to enable them to sell cashew nuts at a higher price than the raw kernels. The Project will work with the Zambia Bureau of Standards to develop standards in order to ensure that processed cashew nuts meet international nutritional and market requirements.

3.2.10. Involuntary Resettlement: There will be no involuntary resettlement or land acquisition envisioned during implementation of the Project activities. The proposed Project activities will be carried out within the existing cashew hub, in Western Province, which was already demarcated by the local communities/GoZ and BRE with no known land disputes.

### **3.3. Project – Fragility Analysis**

According to the *Operational Guidelines for the implementation of the Bank Group Strategy for addressing Fragility and building Resilience in Africa (2014-2019)*, Zambia is classified under Category 3, that is “country where risks of violence or societal breakdown are considered to be relatively low and/or where capacity of social and political institutions to manage challenges within a

legitimate/inclusive framework is relatively high”. Considering that all PARs should have fragility statement, an analysis of fragility-related issues was conducted by ORTS, during the project appraisal phase in June 2015, in order to identify potential (emerging) drivers of fragility as well as the downside risks emanating from these drivers. The fragility analysis ensures that the CIDP design conforms to the principle of “do-no-harm” and beyond—contributes to building resilience. CIDP-level risks which were identified relate to (i) land tenure (in terms of access to land and security of investments on the land), (ii) political dynamics (in terms of political relationship between central and periphery), (iii) macro-economic environment (perceived economic marginalization and limited infrastructure development within the region), (iv) gender and poverty dynamics, and (v) environmental and climatic challenges. In response, the proposed Project activities have taken these downside-risks into considerations in the design and proposed implementation arrangements. An analysis of the fragility-related risks is included in Appendix 8.

## **IV. IMPLEMENTATION**

### **4.1. Implementation Arrangements**

4.1.1. The Ministry of Agriculture and Livestock (MAL) will be the Executing Agency (EA) for the Project which will be implemented through the Director of Agriculture, over a period of 5 years given the long gestation period of cashew-trees. Due to MAL staff capacity constraints, a Project Coordination Unit (PCU) will be set up by GoZ for day to day effective implementation of the Project activities. Based on Bank’s Rules and Procedures, the Project will competitively recruit from the open market the national Experts namely (i) Project Coordinator, (ii) Accountant, (iii) Monitoring and Evaluation (M&E) Specialist, and (iv) Procurement Specialist with a view of forming well experienced, qualified and gender-balanced core PCU team. In addition, the Project will recruit support staff including Administrative Assistant, Messenger/Office Assistant, and 2 Drivers. The PCU will be based in Mongu District and headed by a Project Coordinator who will perform his/her duties under the leadership and guidance of the MAL Director of Agriculture. The PCU will be fully accountable for the performance of Project implementation and the use of funds. The Project will also competitively recruit (a) an international Cashew Technical Adviser to the PCU from PY1 to PY4 (max 4 years) and (b) the Gender Specialist on full time basis from PY1 to PY3 and 3-month-inputs per year from PY4 to PY5, who will be based in Mongu District. The Gender Specialist will be responsible for ensuring that gender mainstreaming is applied throughout Project activities. Prior to recruitment of the core PCU staff, the MAL-Permanent Secretary will appoint an **interim** Project Coordinator, of a senior level (Chief-level), to coordinate the Project activities until a substantive Project Coordinator is recruited.

4.1.2. The Project will provide support to Provincial Agriculture Coordination Office (PACO-Western Province) to build its capacity for Project implementation, monitoring, evaluation and dissemination of information. The PCU will work closely with the PACO and GoZ staff from key MAL Departments/Institutions at Provincial and District levels. The GoZ will set up the multi-disciplinary Project Steering Committee (PSC) which will closely monitor the Project activities. The PSC will consist of 12 members namely, (i) Permanent Secretary/PS (MAL), (ii) PS (Western Province), (iii) Chief Economist-Multilateral (Ministry of Finance), (iv) Director - Department of Policy and Planning (MAL), (v) Director - Department of Gender, (vi) Director - Department of Forestry, (vii) Director - Zambia Agriculture Research Institute (ZARI), (viii) Director - Department of Agriculture, (ix) PACO (Western Province), (x) 1 CGAZ and 2 BRE representatives. The PC will be the PSC’s secretary. The PSC will meet on semi-annual basis, and as need arises, in Mongu District, to (a) approve Project annual work plan and budget, (b) review Project progress against targets, (c) assess management effectiveness, (d) review lessons learned and good practices, (e) approval of information to be posted on GoZ website, and (f) provide overall guidance on Project implementation and policy issues.

4.1.3. **Procurement Arrangements:** All procurement of goods, works and acquisition of consulting services financed by the Bank will be in accordance with the Bank’s “*Rules and Procedures for Procurement of Goods and Works*”, dated May 2008, revised July 2012; and “*Rules and Procedures for the Use of Consultants*”, dated May 2008, revised July 2012, using the relevant Bank Standard Bidding Documents, and the provisions of the *Financing Agreement*. However, all procurements within the thresholds for *National Competitive Bidding (NCB)* and *Shopping* for goods and works will be procured using the *National Procurement Procedures* as set forth in the Zambia Public Procurement Act (ZPPA, 2008), No.12 of 2008, as amended by the Public Procurement (Amendment) Act, 2011, applying the appropriate National Standard Bidding Documents and the provisions stipulated in the *Financing Agreement*. The MAL, as the EA, will carry out day to day procurements through the Procurement and Supplies Unit. The activities to be financed under operational financing at Provincial and District levels will be procured using the existing procurement systems. The GoZ has, at Central and Provincial levels, adequate procurement capacity for small values, internal and external controls, and approval and accountability systems as outlined in the ZPPA (2008). The various items under different expenditure categories and related procurement arrangements have been developed together with details of contracts for goods, works and consultancy services indicating the procurement methods, as reflected Table 4.1 and also in PAR Volume II, Technical Annex B.5.

Table 4.1: Project Procurement Arrangements (USD ‘000)

Item Description	Total Amount (USD ‘000) Including Contingencies				
	NCB	Shortlist <sup>5</sup>	Other <sup>6</sup>	NBF <sup>7</sup>	Total
<b>A. GOODS</b>					
Vehicle	-	-	511.40 (511.40)	-	511.40 (511.40)
Equipment	-	-	1,757.96 (1,757.96)	-	1,757.96 (1,757.96)
Matching Fund	-	-	2,000.00 (2,000.00)	-	2,000.00 (2,000.00)
<b>B. WORKS</b>					
Road-works – ADB	7,162.96 (7,162.96)	-	-	-	7,162.96 (7,162.96)
Road-works – NBF	-	-	-	5,552.83	5,552.83
Cashew Infrastructure -ADB	12,918.86 (12,918.86)	-	9,598.88 (9,598.88)	-	22,517.74 (22,517.74)
Cashew Infrastructure - NBF	-	-	-	2,111.14	2,111.14
<b>C. SERVICES</b>					
Training	-	-	2,686.06 (2,686.06)	-	2,686.06 (2,686.06)
Technical Support	-	1,026.43 (1,026.43)	1,295.04 (1,295.04)	-	2,321.47 (2,321.47)
Survey	-	182.97 (182.97)	-	-	182.97 (182.97)
Audit	-	102.42 (102.42)	-	-	102.42 (102.42)
Consultancy	-	1,700.98 (1,700.98)	-	-	1,700.98 (1,700.98)
<b>D. OPERATING COSTS</b>					
Personnel - NBF Govt Staff	-	-	-	2,170.13	2,170.13
Personnel - PCU Staff	-	-	1,898.16 (1,898.16)	-	1,898.16 (1,898.16)
Operating Cost - ADB	-	-	2,157.88 (2,157.88)	-	2,157.88 (2,157.88)
Operating Cost - NBF	-	-	-	581.17	581.17
<b>Total</b>	<b>20,081.82 (20,081.82)</b>	<b>3,012.80 (3,012.80)</b>	<b>21,905.38 (21,905.38)</b>	<b>10,415.27</b>	<b>55,415.27 (45,000.00)</b>

Note: Figures in parenthesis are respective total amounts financed by the ADB Loan

4.1.4. **Financial Management (FM):** The Project’s FM will be managed by the PCU using the existing set-up in the MAL. The PCU to be set up within MAL’s existing structures would coordinate all financial management issues in line with the Bank commitment to using existing country fiduciary

<sup>5</sup> Shortlist procedures in compliance with para 2.6 of the Bank rules. Consultant’s Qualification (CQS = QBS) applies to both Firms and Individual Consultants. Audit Firm = Least Cost Selection (LCS) method.

<sup>6</sup> “Other” includes National Shopping for Works, recruitment of individual consultant for Services, and use of approved Government procedures.

<sup>7</sup> NBF = Non-Bank Finance (Government and beneficiary contribution).

systems. The FM assessment carried out by the Bank (including a review of the budgeting, accounting, internal controls, flow of funds, financial reporting and auditing arrangements) concluded MAL's FM capacity (including capacity at the Provincial level) satisfies the Bank's minimum requirements, to ensure that the funds made available for project financing are used economically and efficiently and for the purpose intended. The overall residual FM risk rating is *Moderate*. MAL has prior experience in implementing and continue to implement on-going Bank projects. The details are in PAR Volume II Technical Annex B.4.

4.1.5. Disbursement Arrangements: The Project will make use of the Bank's (i) Direct Payment, (ii) Special Account (SA) and (iii) Reimbursement methods in accordance with Bank's *Rules and Procedures* as laid out in the Disbursement Handbook, as applicable. The Bank will issue a *Disbursement Letter* of which the contents were discussed and agreed with GoZ during negotiations. Specifically, a Special Account in Foreign Currency and a Local Currency (Kwacha) Holding Account (LCHA) will be opened at the Bank of Zambia (BoZ) to be operated by MAL and used for financing eligible operating and other recurring costs under the Project. One sub-account in local currency (in Mongu District), to be managed by MAL, will be opened at local commercial bank acceptable to the Bank (AfDB) in order to facilitate payment of eligible operating and local costs of the Project. Based on approved quarterly eligible operational expenditure and cash flow projections, funds would be transferred from the LCHA at BoZ into the respective sub-accounts. As part of cash management controls, the Chief Accountant (MAL) will ensure that no excessive or idle funds remain in the sub-account at the local level and also ensure timely availability of funds in the respective local sub-accounts to facilitate Project implementation. The PCU Accountant in Mongu District will ensure processing of all transactions (including cash book, bank reconciliations, payment vouchers, special accounts justifications, replenishment etc). The GoZ through the Ministry of Finance and National Planning (MoFNP) will be required to submit to the Bank (AfDB), details of all bank accounts as well as specimen signatures of authorized signatories for signing withdrawal applications and direct payments. *Categories of Expenditure* (CoE) have been formulated based on the nature of expenditure that CIDP is expected to incur over the period of the ADB Loan and provide a means to monitor and manage the expenditures for planned activities. The CoE will be reflected in the signed "*Legal Agreement*" and "*Disbursement Letter*" and all disbursements are supposed to be made within the limit of the amounts allocated to each category. Proposed changes to CoE must receive prior approval of the Bank. The details are in PAR Volume II Technical Annex B.4.

4.1.6. Financial Reporting and External Audit: The overall responsibility for the CIDP FM reporting and auditing will rest with the Chief Accountant (MAL), as the head of the Finance Department. In accordance with the Bank's financial reporting and audit requirements, the Project will be required to prepare and submit to the Bank, Interim Quarterly Progress Report (IQPR) not later than forty-five (45) days after the end of each calendar quarter. Annual financial statement prepared and audited by the OAG, as per their mandate, including the Auditor's opinion and Management Letter will be submitted to the Bank not later than six (6) months after the end of each fiscal year. The audit of the Project can be subcontracted as necessary to a private Audit Firm to be procured by CIDP, with the involvement of OAG, using Least Cost Selection (LCS) Method, and the cost of private audit will be financed from the ADB Loan. Auditing arrangements are included in PAR Volume II Technical Annex B.4.

4.1.7. Matching Fund: The matching fund facility of USD 2.00 million will be administered through the CEEC, using their criteria for loan/grant administration and application procedures. The matching funds are to cover seasonal and long term financing needs along the entire cashew value chain, and will range from 10-30% of the cost of any viable business proposal from interested stakeholders. The maximum fund/loan amount shall be ZMW 500,000.00 (about USD 66,000) and the types of funding requests to be considered shall cover feasibility studies, capital investments and working capital items. The facility will complement the existing CEEC's loan facilities and the details are indicated in PAR Volume II Technical Annex C.2.2.3.

## 4.2. Monitoring

4.2.1. Annual Work Plan and Budget (AWP&B): The Project activities will commence with the preparation of the AWP&B which will be developed by PCU/MAL Hq based on the detailed cost tables for implementation and operational control at all levels. To this effect, planning meetings will be organised at District and Provincial levels to prepare the AWP&B which will be collated by the M&E Specialist and submitted to the PSC for approval, before submission to the Bank. In the absence of the PSC, the MAL Permanent Secretary can approve the AWP&B.

4.2.2. M&E System: The MAL M&E system is managed by the existing GoZ M&E Officer in the Department of Policy and Planning. MAL is strengthening its M&E system to develop an integrated sector-wide system. The PCU M&E Specialist, together with the MAL M&E Officer, will establish the Project's participatory M&E system based on performance indicators in the Logframe. The Project M&E System will be linked to the existing MAL M&E system and will be managed by the PCU M&E Specialist. If need be, a short term consultant can be recruited by the Project to assist in developing the Project M&E system. A participatory monitoring and evaluation plan, with gender disaggregated indicators, will be developed based on the Logframe. The Project will provide financial resources to facilitate training, data collection, processing and reporting for key staff and beneficiaries. The baseline survey will be conducted in PY1, by short-term consultant, to confirm the available baseline data and, if need be, develop additional gender disaggregated indicators to capture unforeseen outcomes and activities for improvement of the Logframe and M&E system. The baseline survey will also assess productivity of existing old cashew trees and their health status in order to determine the ones which can be rejuvenated or rehabilitated by CIDP. The PCU will develop Project Implementation Manual highlighting organisation, implementation, financial, disbursement and procurement arrangements.

4.2.3. Project Launch/Final Workshop: The Provincial launch workshop will be organised by MAL and the Bank in PY1 (Q1) for all key stakeholders with the purpose of (i) ensuring that all partners understand and agree on Project components, subcomponents, activities, implementation modalities, and reporting needs, and (ii) acting as a networking event to build relationships for future knowledge sharing. After Provincial launch, the District-level Project launch workshop will be organised by the PCU and PACO using similar approach and the responsibilities of the Provincial and District Administration towards Project implementation will be fully discussed, including their commitment to assign relevant staff to handle some Project activities, provide technical leadership and field support. A final stakeholders' workshop will be hosted in PY5 (Q3) involving all stakeholders in order review Project outcomes, lessons learnt, and other key information and experience generated throughout the Project lifespan.

4.2.4. Project Review: Annual Project implementation review meetings will be conducted as part of the M&E meetings, involving key implementers and stakeholders to analyse and review lessons and challenges. The annual review meeting will be conducted at least 1 month before the PSC meeting. Qualitative analysis will be conducted from PY2 to assess whether activities are likely to lead to the desired outcomes and impacts. Beneficiaries monitoring will also be carried out during these reviews, by assessing the degree of beneficiaries' participation in Project activities, and confirming the level of participation by women and youth. An assessment of quantitative targets in the Logframe will be carried out after PY3. The Beneficiary Impact Assessment (BIA) will be carried out in PY5 (Q2) to measure changes at beneficiary level, compared to the baseline study. The BIA will be conducted jointly by 3 short-term consultants under the supervision of the PCU.

4.2.5. Reporting: All spending Districts will submit activity reports to the Project M&E Specialist, on monthly basis, who will consolidate, compile and submit Quarterly Progress Reports (QPR) based on the Bank's format. All QPRs will be reviewed and cleared by the MAL Director of Agriculture before submission to the Bank, not more than 45 days after the end of the reporting period. The key milestones/reports are presented in Table 4.2.



Table 4.2: Project Key Milestones

Time-Frame	Key Milestones/Reports	Monitoring Process
Year 1	Baseline Survey Report	Beneficiaries, PCU, MAL and Consultant
	Gender Survey Report	Beneficiaries, PCU, MAL and Consultant
Years 1 to 5	Quarterly Progress Reports (QPRs)	Beneficiaries, PCU, MAL Consultants and Contractors,
	Financial Audit Reports	PCU, MAL and OAG or Audit Firm
Year 3	Mid-Term Review (MTR) Report	Beneficiaries, PCU, MAL and Consultant
	Cashew Marketing Study	Beneficiaries, PCU, MAL and Consultant
	Cashew Infrastructure Management Study	Beneficiaries, PCU, MAL and Consultant
Year 5	Beneficiary Impact Assessment Report	Beneficiaries, PCU, MAL and Consultant
	Project Completion Report (PCR)	Beneficiaries, PCU, MAL and Consultant

4.2.6. Bank Supervision Missions, Mid-Term Review (MTR) and Project Completion Report (PCR): The Bank will closely monitor the implementation of Project through regular follow-up meetings and will field, at least, 2 supervision missions per calendar year, in order to verify progress and monitor key verifiable indicators. Apart from Bank scheduled missions, the Bank’s Country Office (ZMFO) Technical Staff will closely monitor CIDP implementation and liaise with GoZ on technical, procurement, financial and disbursement issues. The MTR will be undertaken in PY3 (Q4) to assess Project achievements and interim impact, efficiency and effectiveness of PCU, and continued validity of the Project design. The PCR will be conducted in PY5 (Q3) which will benefit from proceedings of the final stakeholders’ workshop.

### 4.3. Governance

Governance is increasingly becoming a critical component of sustainable human development since it is the means by which the State promotes cohesion, integration and ensures the well-being of its citizens. In recent years, the GoZ has improved on major components of governance measures such as security, rule of law, regulatory quality and effectiveness through various reforms especially in public financial management. However, weaknesses that persist include poor budget management, weak compliance with internal regulations, untimely implementation of audit recommendations and delays in public procurement. Proposed measures to be implemented by the Project include (i) provision of financial management manual to guide Project staff, (ii) utilisation of internal audit to identify pre-audit transaction challenges, (iii) regular submission of QPR, and (iv) recruitment of qualified and experienced Project Accountant and Procurement Specialist. In 2014, Zambia was ranked 13<sup>th</sup> (score: 59.4/100) by the Mo Ibrahim Index of African Governance (IIAG) based on 4 categories of governance, namely, (a) Safety & Rule of Law (10<sup>th</sup>/52), (b) Accountability (14<sup>th</sup>/52), (c) Personal Safety (19<sup>th</sup>/52), and (d) National Security (6<sup>th</sup>/52).

### 4.4. Sustainability

The participatory approach adopted during Project planning will be extended throughout implementation in order to enhance ownership by beneficiaries thus ensuring sustainability. The Project’s focus on cashew value chain will enhance PPP and also focus on market oriented processing for sustainability of investments. Through the Department of Cooperatives, the beneficiaries will be mobilised and trained in order to properly operate and maintain the cashew plantations, community nurseries/clone gardens, cottage industries and collection centres. The main nurseries, scion banks and rural feeder roads which are public in nature will be included in the MAL, ZARI, Provincial and Districts annual operation and maintenance budgets, respectively. The processing facilities will be operated and maintained by the Private Sector, for sustainability. During stakeholders’ consultations, it was clear that the direct beneficiaries (smallholder farmers) were enthusiastic about committing their time and energies to the management of the cashew plantations. The capacity building/training activities planned under the Project will also equip the beneficiaries with necessary knowledge and

technical skills to manage the infrastructure. The Project’s identified localised negative impacts on the environment will be minimized through implementation of proposed mitigation measures since adequate financial provisions have been made, as stipulated in the SESA. The Project is financially sustainable and the analysis indicated that beneficiaries will be able to generate adequate profits for re-investments and also managing the cashew plantations.

#### 4.5. Risk Management

No.	Potential Risks	Rating (High, Medium or Low)	Mitigation Measures
1.	Cashew producing areas are prone to bush fires due to long spells of dry weather.	Medium	Cashew farmers will be trained in proper management of cashew plantations including fire prevention techniques.
2.	The use of agro-chemicals if not properly controlled can be a health hazard to farmers through direct inhalation or runoff into local water bodies which could affect the quality of drinking water.	Medium	Training of farmers/staff on proper application and also provision of protective clothing will be used to as a strategic tool to mitigate some of the negative effects of using agro-chemicals. Integrated pest management technique will be emphasised by the Project.
3.	Poor sustainability of infrastructure, after the Project period.	Medium	The Project will train beneficiaries and facilitate establishment of management entity for various infrastructures.

#### 4.6. Knowledge Building

4.6.1. Based on field activities and feedback from various implementing agencies and stakeholders, the Project is expected to generate a lot of knowledge on the effective operation and strengthening of cashew value chain that will be valuable to the design and management of similar future Bank interventions. CIDP’s emphasis on community participation, Private Sector involvement, effective institutional management, and cashew value chain approach will provide useful lessons for the sustainability of the Project. The management of community infrastructure by farmer organisations, in Zambia, has not previously been analysed. Consequently, the Project will demonstrate that rural communities can ably manage infrastructure given adequate technical support and mentorship/training. CIDP will enhance the capacity of farmers, public and private sectors to manage all planned activities through tailor-made training and will also be invited to participate in regular progress review meetings. Beneficiary impact assessment and final stakeholders’ workshop will provide feedback on key lessons and experiences.

4.6.2. Knowledge management, in general, is very much an under-developed concept in Western Province with limited strategic approach to collecting, analysing, documenting, and disseminating knowledge to key stakeholders for the purpose of sharing experiences, good practices, challenges, and lessons learnt. Consequently, the Project will build capacity and integrate knowledge management in order to ensure that knowledge generated during implementation is systematically identified, analysed, documented and disseminated for adoption. This will also enable the Project to be flexible and responsive to changing circumstances. Documentation and sharing of lessons (successes and failures), experience and good practice will be carried out continuously during Project implementation. Depending upon the need, appropriate support (written material, radio programmes) and several communication channels (such as newspapers, mobile-phone-SMS, and radio etc) might be used for complementarity. The Project will also develop and distribute extension materials on cashew production, processing and marketing to ensure that all existing knowledge in the cashew value chain is well documented for use by the key stakeholders. The Project’s cashew-related online information will also be available through the existing GoZ website which will be updated regularly by the PCU M&E Specialist in consultation with the PACO. However, only Project data/information approved by Project Steering Committee will be posted on the website.

## V. LEGAL INSTRUMENTS AND AUTHORITY

### 5.1. Legal Instruments

5.1.1 ADB Loan to the Republic of Zambia.

### 5.2. Conditions Associated with Bank's Intervention

5.2.1 Condition Precedent to Entry into Force: The entry into force of the Loan Agreement shall be subject to the fulfilment by the Borrower of the provisions of Section 12.01 of the General Conditions of the Bank.

5.2.2 Condition Precedent to First Disbursement: The obligations of the Bank to make the first disbursement of the Loan shall be conditional upon (i) the entry into force of this Agreement and the Guarantee Agreement and (ii) the submission of evidence, in form and substance satisfactory to the Bank, of the fulfilment of the following conditions:

- a. Evidence of having opened one (1) foreign currency denominated Special Account and one (1) local currency denominated Special Account, at a bank acceptable to the Bank into which the proceeds of the Loan will be deposited (§4.1.5); and
- b. Evidence of having appointed an **interim** Project Coordinator of a senior level (Chief-level) to coordinate the Project activities until a substantive Project Coordinator is recruited (§4.1.1).

5.2.3 Other Conditions: The Borrower shall:

- a. within six (6) months of the signing of the Loan Agreement, provide evidence, in form and substance satisfactory to the Bank, of opening of one (1) sub-account to be managed by MAL in accordance with the Bank's financial rules and regulations at one (1) local commercial bank, in Mongu District, that is acceptable to the Bank (§4.1.5).
- b. within six (6) months of the signing of the Loan Agreement, provide evidence, in form and substance satisfactory to the Bank, of the recruitment of Project Coordinator, Accountant, Monitoring and Evaluation (M&E) Specialist and Procurement Specialist, each with skills and qualifications acceptable to the Bank (§4.1.1).
- c. within six (6) months of the signing of the Loan Agreement, provide evidence in form and substance satisfactory to the Bank of the establishment of a Project Steering Committee, with composition acceptable to the Bank (§4.1.2).

### 5.3. Undertakings

The Borrower undertakes to implement the Environmental and Social Management Plan (ESMP), and report to the Bank on a quarterly basis, as part of the quarterly progress report (§3.2.1).

### 5.4. Compliance with Bank Policies

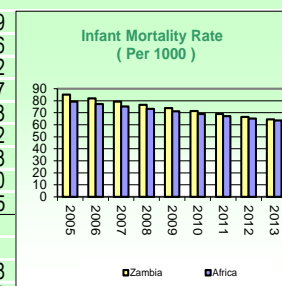
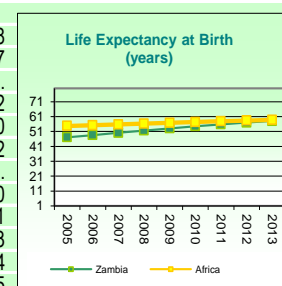
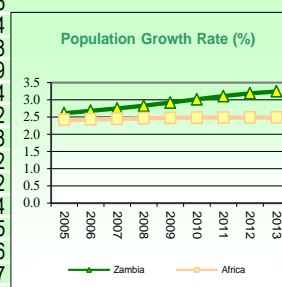
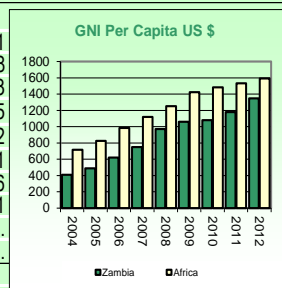
- This project complies with all applicable Bank policies.
- Non-standard conditions (if applicable): N/A

## VI. RECOMMENDATION

Management recommends that the Board of Directors approve the proposed ADB Loan of **USD 45.00 million** to the Republic of Zambia for the purpose of implementing the Cashew Infrastructure Development Project and subject to the conditions stipulated in this Report.

## Appendix 1: Zambia - Comparative Socio-economic Indicators (2014)

	Year	Zambia	Africa	Developing Countries	Developed Countries
<b>Basic Indicators</b>					
Area ( '000 Km <sup>2</sup> )	2011	753	30,323	98,458	35,811
Total Population (millions)	2013	14.5	1,109.0	5,909.3	1,252.8
Urban Population (% of Total)	2013	40.0	40.2	47.7	78.3
Population Density (per Km <sup>2</sup> )	2013	17.7	46.9	70.7	23.5
GNI per Capita (US \$)	2012	1 350	1 719	3 815	38 412
Labor Force Participation - Total (%)	2012-2013	39.2	37.4	67.9	72.1
Labor Force Participation - Female (%)	2012-2013	45.6	42.5	38.6	44.6
Gender -Related Development Index Value	2007-2011	0.473	0.502	0.694	0.911
Human Develop. Index (Rank among 187 countries)	2012	163	...	...	...
Popul. Living Below \$ 1.25 a Day (% of Population)	2008-2011	74.5	40.0	20.6	...
<b>Demographic Indicators</b>					
Population Growth Rate - Total (%)	2013	3.2	2.5	1.3	0.3
Population Growth Rate - Urban (%)	2013	4.3	3.4	2.5	0.6
Population < 15 years (%)	2013	46.6	40.9	28.3	16.4
Population >= 65 years (%)	2013	2.6	3.5	6.1	16.8
Dependency Ratio (%)	2013	99.6	77.9	52.4	49.9
Sex Ratio (per 100 female)	2013	99.5	100.0	103.3	94.4
Female Population 15-49 years (% of total population)	2013	22.9	24.0	53.1	45.2
Life Expectancy at Birth - Total (years)	2013	58.1	59.2	68.4	77.8
Life Expectancy at Birth - Female (years)	2013	60.0	60.3	70.3	81.2
Crude Birth Rate (per 1,000)	2013	42.8	34.8	21.2	11.2
Crude Death Rate (per 1,000)	2013	10.2	10.4	7.6	10.4
Infant Mortality Rate (per 1,000)	2013	64.4	61.9	39.8	5.5
Child Mortality Rate (per 1,000)	2013	99.8	97.4	56.3	6.6
Total Fertility Rate (per woman)	2013	5.7	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2010	440.0	415.3	240.0	16.0
Women Using Contraception (%)	2013	47.1	34.9	62.6	71.3
<b>Health &amp; Nutrition Indicators</b>					
Physicians (per 100,000 people)	2004-2011	6.6	47.1	117.8	297.8
Nurses (per 100,000 people)*	2004-2011	78.4	132.6	202.7	842.7
Births attended by Trained Health Personnel (%)	2006-2011	46.5	52.6	66.3	...
Access to Safe Water (% of Population)	2012	63.3	68.8	87.2	99.2
Access to Health Services (% of Population)	2004	90.2	65.2	80.0	100.0
Access to Sanitation (% of Population)	2012	42.8	39.4	56.9	96.2
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2012	12.7	3.9	1.2	...
Incidence of Tuberculosis (per 100,000)	2012	427.0	223.6	144.0	23.0
Child Immunization Against Tuberculosis (%)	2012	83.0	83.0	81.5	96.1
Child Immunization Against Measles (%)	2012	83.0	74.0	83.0	94.3
Underweight Children (% of children under 5 years)	2005-2012	14.9	19.7	17.0	1.4
Daily Calorie Supply per Capita	2009	1 879	2 481	2 675	3 285
Public Expenditure on Health (as % of GDP)	2011-2012	3.7	2.9	3.0	7.5
<b>Education Indicators</b>					
Gross Enrolment Ratio (%)					
Primary School - Total	2012	113.6	101.9	109.4	100.9
Primary School - Female	2012	113.3	97.9	107.6	100.6
Secondary School - Total	2012	20.5	47.4	69.1	100.2
Secondary School - Female	2012	15.2	44.0	67.8	99.7
Primary School Female Teaching Staff (% of Total)	2012	53.1	46.6	58.0	84.3
Adult literacy Rate - Total (%)	2012	...	62.0	80.3	99.2
Adult literacy Rate - Male (%)	2012	...	70.7	85.9	99.3
Adult literacy Rate - Female (%)	2012	...	53.7	74.9	99.0
Percentage of GDP Spent on Education	2008-2012	1.3	5.3	4.3	5.5
<b>Environmental Indicators</b>					
Land Use (Arable Land as % of Total Land Area)	2011	4.6	7.6	10.7	10.8
Annual Rate of Deforestation (%)	2000-2009	2.4	0.6	0.4	-0.2
Forest (As % of Land Area)	2011	66.3	23.0	28.2	35.0
Per Capita CO2 Emissions (metric tons)	2010	0.2	1.2	3.0	11.6



Sources: AfDB Statistics Department Databases;

last update : May 2014

United Nations Population Division, World Population Prospects: The 2012 Revision;

World Bank: World Development Indicators; UNAIDS; UNSD; WHO, UNICEF, WRI, UNDP; Country Reports.

For any given interval, the value refers to the most recent year available during the period

Note : n.a. : Not Applicable ; ... : Data Not Available.

Appendix 2: AfDB's Active Portfolio in Zambia (March 2015)

No	Sector	Long name	Finance Source	Loan Number	Approval Date	Signature Date	Effective Date	Closing Date	Approved Amt. (UA)	Disbursed Amt. (UA)	Disb. Ratio	IP	DO	PFI STATUS	Age (Yrs)
<b>National Operations (Public)</b>															
1	Agriculture	Agriculture Productivity and Market Enhancement Project	GAFSP	5570155000501	26-Mar-14	10-Jun-14	10-Jun-14	30-Jun-20	21,983,145	452,541.2	2.1%	0	0	NON PP / NON PPP	0.88
2	Agriculture	Finish Supported Small-scale Irrigation Scheme (SIP)	Trust Fund	2100150001106	28-Dec-09	30-Oct-10	30-Oct-10	5/30/2014	8,137,881	6,857,355.79	87.4%	2.29	2.75	NON PP / NON PPP	5.50
3	Agriculture	Livestock Infrastructure Support Project (LISP)	ADF	2100150029293	19-Jun-13	08-Aug-03	-	31-Dec-18	11,700,000	816,380.6	6.8	-	-	NON PP / NON PPP	1.80
4	Agriculture	Livestock Infrastructure Support Project (LISP)	ADF	2100150028842	29-Mar-13	7-Jun-13	1-Aug-13	30-Jun-15	300,000	245,000	95	-	-	NON PP / NON PPP	2.10
5	Agriculture	Strengthening Climate Resilience In The Kafue Sub-Basin	Trust Fund	5565130000151	19-Nov-13	18-Dec-13	9-Apr-14	30-Jun-19	26,483,172	595,090.50	0.2	-	-	NON PP / NON PPP	1.8
6	Agriculture	Lake Tanganyika Development Project	ADB	2000130012932	18-dec-14	-	-	31-dec-18	15,884,800.4	0	0	0	0	NON PP / NON PPP	0.2
7	Agriculture	Lake Tanganyika Development Project	GEF	5550155000501	18-dec-14	-	-		4,944,794.9	0	0	0	0	NON PP / NON PPP	0.2
<b>Sub-Total (Agriculture)</b>									<b>89,433,793</b>	<b>8,966,368</b>	<b>27.29</b>				
8	Water & Sanitation	Nkana Water Supply And Sanitation Project	ADF	2100150018345	27-Nov-08	22-Dec-08	12-Jun-09	31-Dec-13	35,000,000	11,130,000.00	31.8%	2.57	2.67	NON PP / NON PPP	4.01
9	Water & Sanitation	Rural Water Supply & Sanitation Program	ADF	2100150013198	31-Oct-06	17-May-07	15-Nov-07	30-Jun-13	15,000,000	4,543,500.00	30.3%	2.50	3.00	NON PP / NON PPP	6.09
10	Water & Sanitation	Multi-Purpose Small Dams	AWF	5600155002951	9-apr-12	28-may-13	28-aug-13	28-may-16	765,703	229,710.9	30.0	0	0	NON PP / NON PPP	2.60
11	Water & Sanitation	Rural Water Supply & Sanitation Program	ADF	5800155001401	10-sep-14	7-jan-15		31-dec019	2,821,010.9	0	0	0	0	NON PP / NON PPP	0.6
<b>Sub-Total (Water &amp; Sanitation)</b>									<b>53,586,714</b>	<b>15,903,211</b>	<b>23</b>				
12	Power	Itezhi-Tezhi Power Transmission Project	ADF	2100150027396	13-Jun-12	TBD	TBD	31-Dec-18	30,000,000	0.00	0.0%	0.00	0.00	PPP	2.67
			NTF	2200160000989	13-Jun-12	TBD	TBD	31-Dec-18	6,400,000	0.00	0.0%	0.00	0.00	PPP	2.67
<b>Sub-Total (Power/Energy)</b>									<b>36,400,000</b>	<b>-</b>	<b>0.0%</b>				
<b>Multi-National Operations</b>															
13	Multinational	Botswana/Zambia-Kazungula Bridge Project	ADF	2100150025694	7-Dec-11	10-Feb-12	3-Sep-12	31-Dec-18	51,000,000	500,663.00	1.0%	2.50	2.33	NON PP / NON PPP	3.18
14	Multinational	Nacala Corridor Project Phase II(Zambia)	ADF	2100150022945	27-Sep-10	20-Jan-11	10-Jun-11	31-Mar-15	69,369,000	18,611,436.1	26.8%	2.31	3.00	NON PP / NON PPP	4.38
<b>Sub-Total (Transport)</b>									<b>120,369,000</b>	<b>19,112,099</b>	<b>14.00</b>				
15	Social	Support To Science And Technology Education Project (SSTEP)	ADF	2100150030194	20-Nov-13	2-jun-14	1-jul-14	31-dec-19	22,220,000	767,358.8	3.50	-	-	NON PP / NON PPP	1.40
<b>Sub-Total (Social)</b>									<b>22,220,000</b>	<b>767,358.8</b>	<b>3.5</b>				
<b>Private Sector Operations</b>															
11	Power	Itezhi-Tezhi Power Project	ADB	2000130008981	13-Jun-12	TBD	TBD	31-Dec-18	23,174,818	0.00	0.0%	0.00	0.00	No Supervision	0.47
12	Power	Itezhi-Tezhi Power Stand By Project	ADB	2000130009331	13-Jun-12	TBD	TBD	31-Dec-18	1,986,413	0.00	0.0%	0.00	0.00	No Supervision	0.47
13	Finance	PFSL- FAPA TA - ZAMBIA	FAPA	5700155000601	13-Jul-09	13-Jul-09	4-Sep-09	31-Dec-14	935,000	805,035.00	86.1%	0.00	0.00	NA	3.39
<b>Sub-Total (Finance/Private Sector)</b>									<b>26,096,231</b>	<b>805,035</b>	<b>28.67</b>				
<b>Portfolio Summary</b>									<b>304,952,330</b>	<b>22,128,152</b>	<b>0.00</b>	<b>2.42</b>	<b>2.86</b>		<b>2.01</b>

**Appendix 3: Projects (On-going) Financed by the Bank and Other Cooperating Partners**  
**(March 2015)**

<b>Donor Agency</b>	<b>Project Title</b>	<b>Project Coverage</b>	<b>Total Budget (USD)</b>	<b>Implementation Organisation</b>
<b>AfDB</b>	Community Water Management Improvement Project for traditional Farmers	Mkushi, Kapiri Mposhi, Masaiti and Chingola	942,140	Development Aid from People to people (DAPP)
	Livestock Infrastructure Support project	Muchinga & Northern provinces	18,000,000	Ministry of Agriculture and Liv
	Pilot Programme on Climate Resilience (Strengthening Climate Resilience in the Kafue sub-basin)	Southern, Central and Lusaka provinces	38,700,000	Ministry of Finance
	GAFSP- Agriculture Production and Market Enhancement Project	Southern, Lusaka and Central provinces	31,120,000	Ministry of Agriculture and Liv
	Small Scale Irrigation Project – Finish financed	Southern Province	10,600,000	Ministry of Agriculture and Liv
	Lake Tanganyika Development Project	Northern Province	28,690,000	Ministry of Lands, Natural Resources and Environmental Protection
<b>Finland</b>	Small-scale Irrigation Project (SIP)	Chongwe, Mazabuka, Sinazongwe	12,600,000	Ministry of Agriculture and Livestock
<b>Norway</b>	Conservation Agricultural Program Phase II	AEZ 1&2	28,000,000	Conservation Farming Unit (CFU)
	Expanded Food Security Pack	AEZ 2	2,571,429	Min of Community Development, Mother and Child Health
	Community Markets for Conservation - COMACO	Eastern Province	8,600,000	Wildlife Conservation Society/COMACO
<b>European Union</b>	Agricultural Sector Performance Enhancement Programme	Nationwide	11,659,000	Ministry of Agriculture and Livestock
<b>FAO</b>	Integrated Land Use Assessment II	Nationwide	3,953,096	Ministry of Land, Natural Resources & Environmental Protection Forestry Department
	UN-REDD Programme – Zambia Quick Start Initiative	Nationwide	2,180,000	Ministry of Land, Natural Resources & Environmental Protection Forestry Department
<b>IFAD</b>	Smallholder Livestock Investment Project (SLIP)	North-Western, Western, Southern, Eastern and Northern	14,990,000	Ministry of Agriculture and Livestock
	Smallholder Agribusiness Promotion Programme (SAPP)	20-30 districts	24,500,000	Ministry of Agriculture and Livestock
	Smallholder Productivity Promotion Programme (S3P) (co-financed by Finland)	Luapula and Northern Provinces	39,900,000	Ministry of Agriculture and Livestock
<b>JICA</b>	Rural Extension Service Capacity Advancement Project (RESCAP)	Northern, Western and Lusaka provinces	9,000,000	Ministry of Agriculture and Livestock
	Rural and Agriculture Development Advisor	Nationwide	1,300,000	Ministry of Agriculture and Livestock
	Food Crop Diversification Support Project Focusing on Rice (FoDiS-R)	Muchinga, N/P& WP and follow up in EP, SP, WP & Lusaka P	3,100,000	Ministry of Agriculture and Livestock
	Technical Cooperation Project for Community based Smallholder Irrigation (T-COBSI)	Main Luapula, Northern and Muchinga, Copperbelt and North Western Provinces	5,800,000	Ministry of Agriculture and Livestock
<b>USAID</b>	Production, Finance & Technology (PROFIT)	Eastern Province	24,000,000	ACDI/VOCA
	Food Security Research Project (FSRP), Phase III	Nationwide	12,499,501	Michigan State University (MSU), Indaba Agricultural Policy Research Institute (IAPRI)
	Expanding Impact in USAID Supported Value Chains	Eastern Province	1,998,519	Action for Enterprise (AFE)
	Horticulture Global Development Alliance	Eastern Province and Peri-urban Lusaka	4,800,000	ASNAPP, Freshmark, Freshpikt, Stellenbosch University and CETZAM
	Zambia Agriculture Research and Development Project	Eastern province	18,000,000	CGIAR: IITA, CIMMYT, ICRISAT, CIP, CIAT, World Fish Center, Harvest Plus,
	Better Life Alliance Global Development Alliance (GDA)	Eastern Province	6,626,605	COMACO, General Mills and Cargill.
<b>World Bank</b>	Agriculture Development Support Programme	National	37,200,000	MAL
	Irrigation development and Support project	3 Sites	115,000,000	MAL
	Livestock Development and Animal health	Selected provinces	50,000,000	MAL
<b>WFP</b>	Home grown school feeding programme	Western, Southern, North-Western, Northern, Luapula, Muchinga, Central & Eastern	34,672,210	MoE, MAL
	Milk for schools	Nationwide	629,412	MAL
	Disaster Risk Management	Nationwide	780,000	DMMU, FAO
	Food Security for vulnerable groups	Nationwide	15,480,006	UNHCR,
<b>DFID</b>	Support to Musika - Making Agricultural Markets Work for Zambia	Nationwide	7,144,000	Musika
	Access to Finance (includes rural finance)	Nationwide	21,432,000	Bank of Zambia and FIs



## Appendix 5: Financial and Economic Performance (Analyses)

The financial and economic assessment of the project has been carried out at both the farm and the project levels. At the farm level, it is to assess the profitability of the farming operations to the farmers involved. At the project level, it is to compare the overall benefits with the total cost of implementing the project to determine the financial and economic viability of the project. The analysis has been carried out on a “with project” and “without project” basis.

### A. **Financial Analysis:**

**Farm Level:** The farm level analysis has been done under the three (3) different farm type envisaged for the project, namely (1) new cashew plantations (total of 50,000 ha), (2) cashew canopy substitutions/top-working/re-establishment of existing cashew trees (total of 2,000 ha), and (3) existing cashew plantation rehabilitation (total of 8,000 ha). It is estimated that the project’s farming activities will benefit 60,000 households each with an average farm size of 1 ha. At full maturity (i.e. from the 6<sup>th</sup> year after planting), each household with a new plantation on 1 ha will be generating an income of ZMW 3,222 per year. This is made up of profit of ZMW 1,995 and imputed labour fees of ZMW 1,227 which represents 69 person-days. This works out to ZMW 35.10 per person-day compared to the going rate ranges between ZMW 10.00 and 17.50 within the project area.

**Project Level:** The analysis at the project level has been carried out by comparing the project cost, on farm crop establishment and operational costs with the benefits. It is estimated that the project will be producing 46,400 tonnes of raw cashew nuts which will generate ZMW 232 million per annum at its full operation level, which is from the 10 year onwards.

Discounted Cash Flow (DCF) Analysis:

- a. **Financial Internal Rate of Return (FIRR):** The DCF analysis carried out on the net cash-flow gave a FIRR of 16%
- b. **Financial Net Present Value (NPV):** The NPV for the project is also estimated at ZMW 237 million, at a discount rate of 10%.

### B. **Economic Analysis**

In carrying out the economic analysis of the project, the financial costs and benefits streams have been converted into their respective economic values and the discounted cash flow methodology applied to the net cash flows. The DCF analysis carried out on the net cash-flow gave an Economic Internal Rate of Return (EIRR) of 25%. The Economic Net Present Value (NPV) for the project is also estimated at ZMW 440 million, at a discount rate of 10%.

**Sensitivity Analysis:** The sensitivity analyses have been carried out under two (2) assumptions and the results are as follows:

	FIRR (%)	FNPV at 10% cost of capital (ZMW'000)
Base Figures	16.0%	236,941
Assumption 1: 10% increase in project costs	14.9%	204,604
Assumption 2: 10% fall in revenues	10.5%	22,167

	EIRR (%)	ENPV at 10% cost of capital (ZMW'000)
Base Figures	25%	440,334
Assumption 1: 10% increase in project costs	23%	407,997
Assumption 2: 10% fall in revenues	17%	233,677

Details of the analyses are presented in the PAR Volume II, Technical Annex B.7.



Financial Analysis - Discounted Cash Flow Analysis													
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12 -30
<b>A</b>	<b>WITH PROJECT</b>												
<b>A.1</b>	<b>BENEFITS (ZMW'000)</b>												
	<i>Revenue</i>												
	New Plantings	-	-	-	10,000	37,500	83,750	136,250	175,000	195,000	200,000	200,000	200,000
	Top-working	-	-	-	2,250	4,500	5,500	6,500	7,500	8,000	8,000	8,000	8,000
	Rehabilitations	-	3,000	7,500	12,500	16,500	20,500	23,000	24,000	24,000	24,000	24,000	24,000
	Inter-crop		96,000	240,000	384,000	384,000	240,000						
	<b>Total</b>	-	99,000	247,500	408,750	442,500	349,750	165,750	206,500	227,000	232,000	232,000	232,000
<b>A.2</b>	<b>COSTS (ZMW'000)</b>												
	<i>Project Costs</i>	46,353	181,463	98,962	38,515	33,456	17,420						
	<i>New Plantation Establishment Costs</i>		31,966	47,949	47,949	31,966	-						
	<i>Operatining Costs</i>												
	New Plantings			20,048	50,119	80,190	100,238	100,238	100,238	100,238	100,238	100,238	100,238
	Top-working		2,005	4,010	4,010	4,010	4,010	4,010	4,010	4,010	4,010	4,010	4,010
	Rehabilitations		6,014	12,029	16,038	16,038	16,038	16,038	16,038	16,038	16,038	16,038	16,038
	Inter-crop		65,285	163,213	261,140	261,140	163,213						
	<b>Total Costs</b>	46,353	286,733	346,209	417,770	426,799	300,918	120,285	120,285	120,285	120,285	120,285	120,285
<b>A.3</b>	<b>Cash Flow</b>	(46,353)	(187,733)	(98,709)	(9,020)	15,701	48,832	45,465	86,215	106,715	111,715	111,715	111,715
<b>B</b>	<b>WITHOUT PROJECT</b>												
<b>B.1</b>	<b>BENEFITS</b>												
	<i>Revenue</i>												
	Top-working		1000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
	Rehabilitations		3000	6000	8000	8000	8000	8000	8000	8000	8000	8000	8000
	<b>Total</b>		4000	8000	10000	10000	10000	10000	10000	10000	10000	10000	10000
<b>B.2</b>	<b>COSTS</b>												
	<i>Operatining Costs</i>												
	Top-working		475	950	950	950	950	950	950	950	950	950	950
	Rehabilitations		1425	2850	3800	3800	3800	3800	3800	3800	3800	3800	3800
	<b>Total</b>		1900	3800	4750	4750	4750	4750	4750	4750	4750	4750	4750
<b>B.3</b>	<b>CASH FLOW</b>		2100	4200	5250	5250	5250	5250	5250	5250	5250	5250	5250
<b>C</b>	<b>NET CASH FLOW</b>	(46,353)	(189,833)	(102,909)	(14,270)	10,451	43,582	40,215	80,965	101,465	106,465	106,465	106,465
<b>D</b>	<b>FINANCIAL NPV (10%) (ZMW'000)</b>	236,941											
<b>E</b>	<b>FINANCIAL IRR</b>	16.0%											

## Appendix 6: Environmental Issues

1. According to the nature of activities proposed and the Bank’s Environmental and Social Assessment Procedures (ESAP), the CIDP was classified as Category II and validated by the Bank on 6<sup>th</sup> November 2014. In this case, the potential environmental impacts from the planned activities will be localized, minimal, short term, manageable, reversible and can be mitigated. There will be no resettlement issues. The Project will mainly focus on rejuvenating the existing cashew-nut trees and planting new trees within the extension areas. As it is a Project to develop cashew trees in the semi-arid area, it is a very good action for climate change adaptation which is expected to generate both positive socio-economic and environment impacts that will outweigh the likely negative effects. The proposed cashew infrastructure to be constructed/rehabilitated will be small scale in nature and will not induce potential, significant or irreversible environmental and social impacts. The Project will pay particular attention to handling and use of agricultural chemicals and promote integrated pest management. The potential positive impacts might include improvement of (i) marginally productive land into full production, (ii) livelihoods of rural direct beneficiaries, and (iii) the micro-climate through planting of additional cashew-nut trees (afforestation) which will also minimise soil erosion. The negative environmental impacts include disturbance of soil from digging of pits and foundations, tree cutting, vegetation clearing, emission of dust and generation of noise which will be experienced during the construction phase and will be localized, minimal, short term and can be mitigated. During the operation phase, the negative impacts will include solid, liquid, chemical and biological wastes, which will be generated from the normal operations of the facilities and can be managed by incorporating the requisite waste and effluent handling units. The negative impacts will be localized which can be minimised by using proper mitigation measures.

2. The Project triggered the following tabulated Bank environmental and social policies:

No.	AfDB Key Environmental Issues Triggered	Yes	No
1.	Reversing Land Degradation and Desertification	[X]	[..]
2.	Protecting the Coastal Zone	[..]	[X]
3.	Protecting Global Public Goods	[X]	[..]
4.	Improving Public Health	[X]	[..]
5.	Enhancing Disaster Management Capabilities	[X]	[..]
6.	Promoting Sustainable Industry, Mining and Energy Resources	[X]	[..]
7.	Improving Urban Environmental Management	[..]	[X]
8.	Environmental Governance	[X]	[..]
9.	Institution and Capacity Building	[X]	[..]
10.	Increasing Awareness	[X]	[..]
11.	Stakeholder Participation	[X]	[..]

3. The Strategic Environmental and Social Assessment (SESA) report, Environmental and Social Management Plan (ESMP), and Monitoring Plan were produced by the Environmental Specialist (Consultant) and cleared by the Bank for disclosure on 29<sup>th</sup> June 2015. The SESA detailed report also provides the necessary mitigation measures for negative impact as partially Tabulated in PAR Volume II Technical Annex B.8. The SESA report can be access on the Bank’s official website ([www.afdb.org](http://www.afdb.org)) using the following link:

[http://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Zambia\\_-\\_Cashew\\_Infrastructure\\_Development\\_Project\\_CIDP\\_%E2%80%93\\_SESA\\_Summary\\_%E2%80%93\\_06\\_2015.pdf](http://www.afdb.org/fileadmin/uploads/afdb/Documents/Environmental-and-Social-Assessments/Zambia_-_Cashew_Infrastructure_Development_Project_CIDP_%E2%80%93_SESA_Summary_%E2%80%93_06_2015.pdf)

Appendix 7: Letter from Barotse Royal Establishment (BRE) on Land Issues



All correspondence should be  
Addressed to The Ngambela

In reply please quote  
No.....

**BAROTSE ROYAL ESTABLISHMENT  
LEALUI**

25 June 2015

The Permanent Secretary  
Office of the President  
WESTERN PROVINCE



**ENDORSEMENT OF THE PROPOSED CASHEW  
INFRASTRUCTURE DEVELOPMENT PROJECT IN WESTERN  
PROVINCE**

We refer to the recent mission from the African Development Bank (AfDB) that paid a courtesy call on the Barotse Royal Establishment (BRE) on 13<sup>th</sup> March 2015 at Limulunga Royal Court. The AfDB mission was invited by the Government of Zambia to prepare the Cashew Infrastructure Development Project with a view to revitalize the cashew industry in the Western Province.


We wish to reaffirm that BRE is in full support of the proposed Cashew Infrastructure Development Project which will provide economic benefits to the people of the Western Province. We encourage the Government to expedite the processing and negotiations with the AfDB to ensure that the proposed Project is implemented without delay. On our part, the BRE and His Majesty The Litunga of Barotseland will facilitate the operations of the proposed Project. In this regard, we also wish to assure the Government that all the local beneficiaries who wish

Office of The Ngambela, P O Box 910284, Telephone: +260 217 221724 Lealui, Mongu, Zambia

to invest and expand the area under cashew will be assured access to land. We further reiterate our request that the BRE be allowed to participate in the Project management through membership of the Project Steering Committee and also the planned capacity building activities.

Through your office, the BRE would like to extend its gratitude to the Government of Zambia for this development gesture.

Yours sincerely,

  
Lubasi Nalishuwa  
Induna Kalonga  
For and on behalf of BRE

CC: African Development Bank – Zambia Office ✓  
CC: The Permanent Secretary – Ministry of Agriculture and Livestock

## Appendix 8: Project Fragility Analysis (June 2015)

1. Within the Cashew Infrastructure Development Project (CIDP), a number of project-level risks were identified to include issues such as (i) land tenure issues (multiple claims of ownership and contestations between customary and state systems); (ii) political dynamics (central-periphery contestations on issues of statehood); (iii) macro-economic interactions (economic marginalization); (iv) gender and poverty dynamics; (v) and environmental/climatic challenges. As part of the appraisal mission, an assessment of fragility issues was conducted by ORTS to identify potential (emerging) drivers of fragility as well as the downside risks emanating from these drivers. The table below shows the approach of how Project activities directly contribute to addressing the Project-level risks stemming from the drivers of fragility. The details are included in PAR Volume II Technical Annex C.3.

Drivers of Fragility	Downside risks stemming from the drivers of fragility	Proposed activities and considerations integrated in the Project design
Land tenure issues	<ul style="list-style-type: none"> <li>• Unclear property rights</li> <li>• Inadequate available land for the project</li> <li>• Lack of security of cashew investments on farmlands.</li> </ul>	<ul style="list-style-type: none"> <li>• Formalized assurance from traditional leadership (Barotse Royal Establishment) on available lands for the Project</li> <li>• Members of the BRE included in the project steering committee and to provide guidance on land-related issues</li> <li>• Targeted farmers already have access to sufficient lands for the project ( about 1- 4 ha per farmer)</li> <li>• Additional lands for private investors in the cashew production are guaranteed</li> <li>• Culture of security of investments on farmlands ascertained in the region</li> <li>• Presence of traditional judiciary systems to manage and resolve land-related conflicts</li> </ul>
Difficult macro-economic environment	<ul style="list-style-type: none"> <li>• Inadequate resources to the Western Province for agricultural development</li> <li>• Lack of agriculture-related infrastructure</li> <li>• Low economic development in the region</li> </ul>	<ul style="list-style-type: none"> <li>• Relative stability in government’s policy on agricultural development in Zambia</li> <li>• Increased government support to cashew industry due to economic policy of maximizing comparative advantages in agricultural development</li> <li>• Continuous government-led investment in infrastructure to enable private sector development in different sectors, especially in agriculture</li> <li>• Increased research and training through engagement with the university to produce skilled manpower for the cashew industry</li> <li>• Development quality and assurance control management system to enhance production and marketing</li> </ul>
Political dynamics	<ul style="list-style-type: none"> <li>• Central-periphery divide on policy issues</li> <li>• Issues of statehood</li> <li>• Mistrust between the government and traditional leadership</li> </ul>	<ul style="list-style-type: none"> <li>• Commitment from the traditional leadership (BRE) and the Government on reviving the cashew industry in the Western Province.</li> <li>• Improved dialogues on opportunities for provincial social and economic development</li> <li>• Improved access and control of resources by regional leadership as a means of spurring development</li> <li>• Joint management and oversight roles given to both parties in steering the project</li> </ul>
Poverty and Gender dynamics	<ul style="list-style-type: none"> <li>• Lack of interest in cashew by farmers due to poverty</li> <li>• Fewer women farmers and lower incentives for participation</li> <li>• High cost of participating as a small holder farmer</li> <li>• Risks of social exclusion in the project</li> <li>• Lack of skills and capacities in the innovations and technologies for the cashew production systems</li> </ul>	<ul style="list-style-type: none"> <li>• High returns and minimal inputs from cashew is raising farmers’ interest is an opportunity for reducing poverty</li> <li>• Farmers are organized into self-governing entities to support productivity and negotiate better market prices</li> <li>• Gender-sensitive considerations for more women to be actively involved in the entire value chain from production, processing to marketing</li> <li>• Participation in the project is open to all interested farmers in cashew production</li> <li>• Project to provide nurseries and irrigation systems for farmers to reduce the cost of planting</li> <li>• Project to construct community-based and private sector-led processing facilities</li> <li>• Extension workers recruited to provide training to smallholder farmers (50% women)</li> <li>• Support the national agriculture research institution (ZARI) to undertake gender-sensitive cashew adaptive research</li> </ul>
Adverse Environmental /Climatic conditions	<ul style="list-style-type: none"> <li>• Lower availability of water resources to meet growing needs</li> <li>• Climatic effects on cashew seedlings affecting growth and productivity</li> <li>• Degraded lands affecting productivity</li> </ul>	<ul style="list-style-type: none"> <li>• Development of irrigation systems and bore holes for different nurseries</li> <li>• Use of cashew clones that are well-adapted to the given environmental and climatic conditions</li> <li>• Only cashew can survive on the marginal lands (with poor soils) where they are grown</li> <li>• Development of training manual for local farmers on effective plant management systems</li> <li>• Sustainable land management and integrated pest management system taken into consideration</li> </ul>

2. Overall, the analysis shows that the considerations of the potential and existing fragility risks are taken into account in the design of the Project activities. The fragility analysis ensures that the Project design conforms to the principle of “do-no-harm”, and beyond – contributes to building resilience. In addition, local ownership and leadership is a key factor for managing any potential risks throughout the Project lifespan. This is crucial for Project sustainability.