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AFRICAN DEVELOPMENT BANK GROUP

PROJECT: STRENGTHENING CLIMATE RESILIENCE IN THE KAFUE SUB-BASIN
COUNTRY: ZAMBIA

PROJECT APPRAISAL REPORT

August 2013

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Currency Equivalents

As of July 2013

Currency Unit	=	US Dollars
1 UA	=	USD 1.49877
1 USD	=	ZMW 5.32473962
1 UA	=	ZMW 7.98056

Fiscal Year

January 1st – December 31st

Weights and Measures

1 metric tonne (t)	=	2,205 lbs.
1 kilogramme (kg)	=	2.205 lbs.
1 metre (m)	=	3.281 ft.
1 kilometre (km)	=	0.621 mile
1 square kilometre (km^2)	=	0.386 square mile
1 hectare (ha) = 0.01 km^2	=	2.471 acres

Acronyms and Abbreviations

AfDB	:	African Development Bank
AUC	:	Commission of the African Union
BoZ	:	Bank of Zambia
CBFF	:	Congo Basin Forest Fund
CCVI	:	Climate Change Vulnerability Index
CIFs	:	Climate Investment Funds
CRMA	:	Climate Risk Management and Adaptation
DFID	:	UK Department for International Development
GEF	:	Global Environment Facility
GCOS	:	Global Climate Observing System
IBRD	:	International Bank for Reconstruction and Development
IFC	:	International Finance Corporation
IPCC	:	Intergovernmental Panel on Climate Change
KNP	:	Kafue National Park
LDCs	:	Least Developed Countries
MDGs	:	Millennium Development Goals
NAPA	:	National Adaptation Program of Action
NEPAD	:	New Partnership for Africa's Development
NRFA	:	National Road Fund Agency
NMHS	:	National Meteorological and Hydrological Services
PPCR	:	Pilot Program for Climate Resilience
RDA	:	Roads Development Authority
RF	:	Road Fund
RECs	:	Regional Economic Communities
RMCs	:	Regional Member Countries
ROADSIPII	:	Second Roads Sector Investment Program
RTSA	:	Roads Transport and Safety Agency
SCF	:	Strategic Climate Fund
SCRIKA	:	Strengthening Climate Resilience in the Kafue Basin
SPCR	:	Strategic Programme for Climate Resilience
UA	:	Units of Account
UNFCCC	:	United Nations Framework Convention on Climate Change

Grant and Loan Information

Client's information

BORROWER:	The Government of the Republic of Zambia
EXECUTING AGENCY:	National Climate Change Secretariat/ Ministry of Finance

Financing plan

Source	Amount (US$)	Instrument
Strategic Climate Fund (SCF) Grant	20.50	Grant
Strategic Climate Fund (SCF) Loan	17.50	Loan
Government of Zambia	0.72	N/A
TOTAL COST	**38.72**	

SCF's key financing information

Loan / Grant currency	US$
Interest type*	N/A
Interest rate spread*	N/A
Commitment fee*	N/A
Other fees*	N/A
Tenor	40 years
Service Charge	0.10% per annum on the amount disbursed and outstanding
Grace period	10 years
FIRR, NPV (base case)	15,12%, ZMW 356,22 Million
EIRR (base case)	16,89%), ZMW 489.11 Million

**if applicable*

Timeframe - Main Milestones (expected)

Concept Note approval	(April, 2013)
Project approval	(September, 2013)
Effectiveness	(December, 2013)
Last Disbursement	(June, 2019)
Completion	(December, 2019)

Project Summary

1. Zambia's climate is highly variable, with frequent droughts, seasonal and flash floods, extreme temperatures and dry spells. Floods and droughts have increased in frequency over the past three decades, costing the nation an estimated 0.4% in annual economic growth[1]. These trends are expected to intensify in the future. Projected temperatures are expected to increase by $3\text{-}5^0$ C by 2100, with average precipitation declining during the early rainy season (October to December) and intensifying thereafter. In the absence of adaptation, rainfall variability alone could keep an additional 300,000 people below the poverty line over the next decade, and reduce annual GDP growth by 0.9%[2]. Climate change and variability is in turn affecting agriculture and natural resource productivity, thereby exacerbating poverty and contributing to decline in economic growth. On the basis of this observed climate trends, Zambia was one of the three countries in Africa selected for the Pilot Program for Climate Resilience (PPCR), which is funded by the Strategic Climate Fund (SCF) – a multi-donor Trust Fund under the Climate Investment Funds.

3. The SCRIKA, administered by the AfDB will foster food security, sustained growth and poverty reduction by strengthening the adaptive capacity of 800,000 direct beneficiaries in the Kafue basin who depend on rainfed agriculture and natural resources for subsistence and livelihood, to better respond to current climate variability and long-term consequences of climate change. By strengthening the capacity to cope with floods and droughts, the project will contribute toward making the communities and the economy in the Kafue sub-basin more resilient to climate change. The project will be implemented over a period of five (5) years from 2013 at a total cost, net of taxes and duties, of US$38 million in nine (9) districts of the Kafue basin. The primary beneficiaries include poor rural farmers who often suffer climate-related losses, and other vulnerable groups that depend on natural resources for their livelihoods. 42% of the direct beneficiaries are youth (36,000) and women (300,000).

4. The Bank's comparative advantage and added value in supporting Zambia is derived from its accumulated experience in financing community based agriculture and natural resources management initiatives, and in the continent particularly in the areas of agriculture and natural resources management, which are key sectors critical for reducing poverty among those vulnerable to climate change. The Bank's support to PPCR projects in Mozambique and Niger has also solidified Bank's competence in designing and implementing climate change adaptation initiative.

5. The project introduces new approaches on: (i) integrating climate change risks into local area planning in the agriculture and natural resources sectors at the community level; (ii) the use of output and performance based road contracting for upgrading and maintenance of rural roads; and, (iii) the integration of long term climate risks into the design of rural roads in strengthening their ability to withstand floods and extreme weather patterns. Generated best practices and lessons learned will be disseminated for use in future projects through different mechanisms such as Bank's analytical work, publications and workshops. The new approaches will also be applied in other areas of the continent and provide the Bank with the requisite knowledge to meet its twin objective of inclusive growth and gradual transition to green growth which are anchored in the Bank's Ten Year Strategy.

[1] *Economic Assessment of the Impacts of Climate Change in Zambia, Pegasys, 2010*

[2] *https://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/PPCR%208%20SPCR%20Zambia.pdf*

Results Based Logical Framework

COUNTRY AND PROJECT NAME:		**Zambia - Strengthening Climate Resilience in the Kafue sub-basin Project**				
PURPOSE OF THE PROJECT:		***To reduce poverty and enhance food security of rural communities in the Kafue basin through strengthening their climate change adaptive capacity.***				
RESULTS CHAIN		**PERFORMANCE INDICATORS**			**MEANS OF VERIFICATION**	**RISKS/MITIGATION MEASURES**
		Indicator (including CSI)	**Baseline**	**Target**		
IMPACT	**Long-Term**		**2013**	**≥ 2020**		
	Impact: Contribution in increasing population's resilience to climate change	• Change (%) in communities (in areas at risk) whose livelihoods have improved	(*)	800,000 (450,000 men/ 350,000 women)	Zambia vulnerability assessment report (VAC)	
		• Reduction in damage / losses from extreme climate events	(*)	≥ 75%	Climate resilience and adaptation reports	
		• Increase (%) in food security	(*)	35%	Annual economic report of MOF	
OUTCOMES	**Medium-Term**		**2013**	**2020**		**Risk:** • Reluctance of communities to adopt innovative climate adaptation measures **Mitigation Measures**: • Demonstrations & promotion of innovative changes in production systems • Promotion of the benefits of forest plantations, water resources efficient use and sustainable NRM.
	Outcome 1 Increased adaptive capacity of communities to climate change in priority districts of the Kafue Basin	• Extent to which vulnerable communities, private businesses and public sector services use improved PPCR supported tools to respond to climate variability or cc[3]	(*)	≥ 70%	Annual project M&E reports	
		• Reduction in crop areas affected by droughts and floods during extreme climate events in pilot districts	(*)	≥ 75%	Annual crop forecasting report from CSO of Zambia	
		• Increase in agricultural productivity with % change in yields	0%	≥ 15%		
	Outcome 2 Improved climate resilience infrastructure	• Extent to which climate responsive instruments / investment road models are developed[4]	0%	≥ 70%	Annual project M&E reports	
OUTPUTS	**Short-Term**		**2013**	**≤ 2020**		**Risk:** • Government's weak disbursement profile. **Mitigation Measures**: • A comprehensive due diligence was carried out during project preparation on the fiduciary capacity of Provinces and districts. The project selected Provinces and Districts with the highest scores.
	Output 1 Adaptive community-based investments are promoted	• Number of micro-Projects supported to upgrade community- and farm-level infrastructure benefitting men/women	0	1,150 (650men /500 women)	• Monitoring / evaluation reports • Quarterly Progress Reports • Mid-term review report • Project Completion Report (PCR)	
		• Number of technological packages disseminated as part of farm-level systems plans for promotion of good practices benefitting men/women	0	35 (25men /10 women)		
		• Number of medium to large-scale investment projects supported through matching grants for climate adaptation	0	≥ 200		
	Output 2 Local Government and community groups are able to better manage climate risks	• Number of CC training sessions in support to local government and community groups in integrating climate risks management in local development planning in favor of men / women	0	12 (7 /3)		
	Output 3 Strategic rural roads climate proofed	• Length (km) of strategic farm-to-market access roads constructed / rehabilitated using climate risk planning models[5]	0	127.52		
	Output 4 Project coordination, implementation, monitoring, and technical and financial supervisions are carried-out as planned	• Status of implementation of annual budget-program and ESMP	0%	≥ 95%	• Monitoring/evaluation reports • Mid-term review report Project Completion Report (PCR)	**Risk:** • Delay in Project implementation • Possible inadequate capacity in carrying-out project activities **Mitigation Measures**: • Provide training on fiduciary aspects during launching, (ii) close supervision of fiduciary aspects during project
		• Number of updated annual procurement plans submitted for Bank approval	0	4		
		• Number of supervisions per year	0	2		
		• Annual disbursement rate	0%	≥ 20 %		
		• Number of QPR, MTR & annual audits annually submitted to the Bank	0	6		

[3] *PPCR Core Indicator B.1*
[4] *PPCR Core Indicator B.1*
[5] *PPCR Core Indicator A1.3*

		• PCR approved	0	1		implementation.

KEY ACTIVITIES	COMPONENTS	INPUTS (Total Project Cost: US$ 38.72 Million)
	Component 1: Community-driven Participatory Adaptation 1. Integrated Community-Based Adaptation 2. Support to community-driven Participatory Adaptation	***US$ 17.26 million*** *(SCF grant)* *US$ 13.76 million (SCF grant)* *US$ 3.50 million (SCF grant)*
	Construction and Rehabilitation of Climate Resilient Roads	***US$ 17.5 million*** *(SCF Loan)*
	Project Management and Coordination (financial audit, ESMPs, procurement plans)	***US$ 3.24 million*** *(SCF Grant)* ***US$ 0.72 million*** *(Gov. of Zambia)*

Project Timeframe

N°	ACTIVITES	PROJECT IMPLEMENTATION YEARS						
		2013	2014	2015	2016	2017	2018	2019
1.	Negotiations, Board Approval of SCF Loan and Grant							
2.	Signature of Grant Protocol and Loan Agreements							
3	Preparation of 1st annual budget							
4	Authorization of 1st Disbursement							
5	Approval of 1st Competitive Bidding & SL							
6	Invitation to Bid							
7	Reception and Evaluation of Bids							
8	Integrated CB Adaptation - Farm-Level System Support							
9	Integrated CB Adaptation – Recruitment matching grant Mgt Agent							
10	Integrated CB Adaptation –Matching grant: CC adaptation investments							
11	Integrated CB Adaptation –Micro-credit: Community-level Infrastructure							
12	Participatory Adaptation: Mobilization & training of local communities							
13	Participatory Adaptation: Risks and vulnerability assessment							
14	Support to Participatory Adaptation: Integration of Climate Risk Mgt in Local Planning							
15	Project coordination							
16	Mid-term Review of Project							
17.	Project completion							
18	Completion Report of the Government							
19.	Bank Completion Report							
20.	Audits							
21	Last project disbursement							

REPORT AND RECOMMENDATION OF THE MANAGEMENT OF THE ADB GROUP TO THE BOARD OF DIRECTORS ON A PROPOSED SCF-PPCR LOAN OF US$17.5 MILLION AND A SCF-PPCR GRANT OF US$20.5 MILLION TO ZAMBIA FOR STRENGTHENING CLIMATE RESILIENCE IN THE KAFUE BASIN

Management submits the following Report and Recommendation on a proposed Strategic Climate Fund concessional loan of US$17.50 million and grant of US$20.50 million to finance the **Strengthening Climate Resilience in the Kafue Basin Project** in Zambia.

I – STRATEGIC THRUST AND RATIONALE

1.1. Project linkages with country strategy and objectives

1.1.1 The Project is anchored in the Zambia's Sixth National Development Plan (SNDP: 2011-2015) which calls for: (i) acceleration of infrastructure development; (ii) economic diversification; and, (iii) rural investments in order to stimulate economic growth and reduce rural poverty in an effort to spearhead the country's vision of becoming a middle income country by 2030. It sets out agriculture, livestock and fisheries as key priority growth sectors that contribute toward achieving the goal of the SNDP – sustained economic growth, poverty reduction and creation of employment. The project responds to all the three objectives of the SNDP. By rehabilitating and upgrading rural roads, the project is contributing to infrastructure development, while adoption of adaptation measures such as water harvesting, aquaculture, and livestock production will open up opportunities for communities to adopt alternative livelihoods that will increase their resilience to climatic shocks. The Project design was also guided and informed by the National Climate Change Response Strategy (NCCRS) approved in 2010, and the National Adaptation Programme of Action on Climate Change (NAPA) which identify increased intensity and frequency of floods and droughts as major climatic risks undermining agriculture productivity, food security, and productivity of natural resources such as water and forests.

1.2.1 The project design was guided by the adaptation activities prioritised in the NAPA which promote alternative sources of livelihoods and sustainable management of land, water and infrastructure as means of reducing vulnerability to climate change and variability. The project is also in support of Pillar 1 of the Country Strategy for Zambia (2011-2015), which focuses on supporting economic diversification through infrastructure development and productive sectors, and is included in the current lending program of the CSP. By integrating climate risks into local development planning to strengthen the communities' capacity to respond to floods and drought, the project is responding to the Bank's TYS (for 2013-2022) which aims to broaden and deepen the Bank's vision of transforming Africa in view of improving the continent's quality economic growth, by fostering inclusive growth and transitioning to green growth as well as in contributing to infrastructural development, agriculture and food security. The project is expected to directly generate about 2,000 new jobs through value addition and agro-processing and trade activities by women and the youth. In addition, the Project is aligned with the Bank's Agriculture Sector Strategy (2010-2014), the Southern Africa Regional Integration Strategy Paper (2011-2015) and the Climate Change Action Plan both of which recognize the important role that climate change adaptation play in promoting climate resilient investments in the agriculture and natural resources sectors including rural infrastructure.

1.2. Rationale for Bank's involvement

1.2.1 The Bank's comparative advantage and added value in supporting Zambia is derived from its accumulated experience in financing community based adaptation initiatives in Zambia, and in the continent, particularly in the areas of agriculture and natural resources management, which are key sectors critical for reducing poverty among those vulnerable to climate change. Within Zambia, the Small Scale Irrigation Project, the Community Water Management Improvement Project, and the Agriculture Marketing Promotion and Regional Integration have provided lessons that have informed the design of the proposed Project. In addition, the Bank's support to PPCR projects in Mozambique and Niger has solidified Bank's competence in designing and implementing climate change adaptation initiative. The projects have provided lessons in designing and implementing climate adaptation measures to address both extreme climate events related to floods and drought in the continent. Therefore, as the government of Zambia moves toward deepening its interventions in climate change adaptation and mitigation in line with the National Climate Change Response Strategy, the Bank will be playing a lead role through this Project in supporting the government in its endeavour and in demonstrating approaches to climate change adaptation.

1.3. Donor coordination

Sector or Sub-sector	Size		
	GDP	Export	Labor
[Agriculture/Climate Change]	18%	20%	67%
Players - Public Annual Expenditure (average): 2012 Budget**			
Organization	**% contribution out of a total of UA 68.9 million / Year**		
World Bank	**36.3%**		
EU	**4.89%**		
DFID	**5.30%**		
IFAD	**18.09%**		
GIZ	**10.40%**		
Finland	**4.57%**		
USAID	**8.21%**		
Norway	**7.28%**		
AfDB	**3.53%**		
Existence of Thematic Working Groups	[Y]		
Existence of SWAPs or Integrated Sector Approaches	[N]		
ADB's Involvement in donors coordination***	[M]		

** as most appropriate ** Years [yy1 to yy2] *** for this sector or sub-sector*

***** L: leader, M: member but not leader, none: no involvement*

1.3.1 The Zambia Strategic Program for Climate Resilience (SPCR) which was approved by the PPCR Sub-committee in June 2011 comprises three complementary projects which make up Phase II of the PPCR. They include:

(a) The proposed project (US$38 million), administered through the African Development Bank focusing on strengthening climate resilience in the Kafue sub-basin,
(b) A complementary project (US$36 million) administered through the IBRD, focusing on national climate change program and strengthening climate resilience in the Barotse sub-basin,
(c) A US$ 15 million IFC support project, focusing on private sector support to climate resilience in both the Kafue and Barotse sub-basins, and
(d) A Euro 4 million project funded by the Nordic Development Fund supporting development of climate resilient transport norms and related capacity building in the transport sector.

II – PROJECT DESCRIPTION

2.1 Project Objective

The objective of the project is to foster sustained economic growth, reduce poverty and enhance food security through strengthening the adaptive capacity of 800,000 farmers to better respond to current climate variability and long-term consequences of climate change in the Kafue sub-basin.

Table 2.1 Project Components

No.	Component	Cost (UA million)	Description
1.	Community-Driven Participatory Adaptation	**11.52 (45%)**	1.1. Integrated Community-Based Adaptation: will support three (3) areas of intervention: • *Community-level infrastructure* projects, such as, small-scale, community level flood control and diversion structures, small-scale irrigation schemes, water reservoirs and small dams, de-silting & restocking ponds, improved wells & boreholes, community forest plantations, and wildlife estate and community game ranches; • *Farm-level support systems* such as training farmers on conservation agriculture, management of soil moisture and fertility, providing inputs such as seeds for drought and flood resistant crop varieties for crop diversification, seedlings for fruit orchards, livestock and fisheries for diversification of farming systems, erosion control and improved grazing and pastures as well as value addition investments; • *Matching Grant for Climate Change Adaptation Investments* support medium to large-scale investments in activities that are considered to add value to primary products supplied by local producers; 1.2. *Support to Integrated Community Based Adaptation*: to provide support to local communities in: (i) mobilizing, training and facilitating integration of climate risk management in local planning, and (ii) risk and vulnerability assessment;
2.	Construction and Rehabilitation of Climate Resilient Roads	**11.68 (45%)**	To strengthen the climate resilience of rural roads that link farmers to markets as well as to the Kafue National Park for a total of 127.52 km to be able to withstand floods: (i) Kalomo to Dundumwezi (75.25km) and (ii) Itezhi-Tezhi to Namwala (52km).
3.	Project Management and Coordination	**2.64 (10%)**	3.1 *Capacity strengthening*: (i) Rehabilitation of existing offices and construction of new facilities; (ii) Procurement required equipment to implement and coordinate project physical activities; (iii) procurement of project administrative, financial and accounting software for project financial resources management; (iv) training staff in project cycle management; (v) recruitment of additional staff in critical areas, such

			as, financial management & monitoring & evaluation; and (iv) provision of technical assistance to ensure project implementation in accordance with good tasks management practices; 3.2 *Prepare and submit the required reports*: (i) undertake annual external audit; (ii) submit quarterly progress and ESMP reports; (iii) undertake project supervisions every (09) months and a mid-term review; and (iv) prepare a project completion reports;
	Total	**25.83 (100%)**	

2.2. Technical solution retained and other alternatives explored

Table 2.2: Project alternatives considered and reasons for rejection

	Alternative	Brief Description	Reasons for Rejection
1.	Channel funds through sector line Ministries and Financial Institutions	Sector Ministries would train beneficiaries and recommend them for financial support to the Financial Institutions	Low access to both sector ministry extension services and financial institutions would reduce flow of benefits. Credit schemes have failed in past projects and are dominated by the rich. The use of local institutions will help to reach more deserving beneficiaries and build their capacity. The use of the District Planners as focal points will engender a multi-sectoral approach and mainstream the project into government plans
2.	Provide a menu of standard adaptation technologies to the beneficiaries	Instead of leaving the project to be demand driven, provide a standard menu of adaptation interventions	Each community and district has different ecological, socio-economic and economic opportunities and challenges. The use of local institutions to identify the opportunities and link beneficiaries to services is more sustainable
3.	Adopt standard road designs and upgrade the target roads	The studies that are being done on the design of the roads will take time and delay the project	The target area is prone to climate change induced flooding and specific studies and assessments are required to determine climate proofing requirements and provide lessons to design standards to be used in other roads in the country.

2.3. Project Type

The Project is a standalone investment funded by the Strategic Climate Fund, one of the two funds under the overarching Climate Investment Funds.

2.4 Project Cost and Financing Arrangements

2.4.1 Project Costs: The total cost of the project is estimated at US$38.72 million, net of taxes and based on 2013 prices, comprising US$22.92 million or 59% of the total cost in foreign cost and US$15.80 million or 41% in local costs. This cost is inclusive of physical and price contingencies estimated at average rates of 7% and 5 % respectively. The price contingencies were estimated on the basis of actual and projected levels of local and foreign inflation rates of about 5.5-6.0% and 2.2% per annum, respectively. The physical contingencies are estimated from 0 to 15%, based on common practices. A summary of the project cost estimates by components and expenditure accounts is shown in Tables 2.3, 2.4 and 2.5 below, while details are provided in the Technical Annexes – Volume II of the appraisal report.

Table 2.3: Summary Project Cost by Component (ZMW/US$)

COMPONENTS	(ZMW Million)			(US$ Million)			% FE	% B.C.
	Local	Foreign	Total	Local	Foreign	Total		
A. COMMUNITY-DRIVEN PARTICIPATORY ADAPTATION								
Integrated Community-Based Adaptation	30.19	41.82	72.02	5.67	7.85	13.53	58	39
Support to Participatory Adaptation	9.03	7.39	16.41	1.70	1.39	3.08	45	9
Subtotal	39.22	49.21	88.43	7.37	9.24	16.61	56	48
B. CONSTRUCTION AND REHABILITATION OF CLIMATE RESILIENT ROADS	26.55	49.30	75.84	4.99	9.26	14.24	65	41
C. PROJECT MANAGEMENT AND COORDINATION	7.78	11.88	19.66	1.46	2.23	3.69	60	11
Total BASELINE COSTS	**73.54**	**110.39**	**183.93**	**13.81**	**20.73**	**34.54**	**60**	**100**
Physical Contingencies	4.54	8.20	12.74	0.85	1.54	2.39	64	7
Price Contingencies	6.05	3.44	9.49	1.14	0.65	1.78	36	5
Total PROJECT COSTS	**84.13**	**122.03**	**206.17**	**15.80**	**22.92**	**38.72**	**59**	**112**

Table 2.4: Summary Project Cost by Expenditure Categories

CATEGORIES OF EXPENSES	(ZMW Million)			(US$ Million)			% FE	% B.C.
	Local	Foreign	Total	Local	Foreign	Total		
I. Investment Costs	**71.14**	**106.78**	**177.92**	**13.36**	**20.05**	**33.41**	**60**	**97**
A. WORKS	**27.16**	**51.14**	**78.30**	**5.10**	**9.60**	**14.70**	**65**	**43**
Construction & Rehabilitation	0.61	1.84	2.46	0.12	0.35	0.46	75	1
Roads	26.55	49.30	75.84	4.99	9.26	14.24	65	41
B. GOODS	**0.56**	**2.54**	**3.10**	**0.11**	**0.48**	**0.58**	**82**	**2**
1. VEHICLES	**0.50**	**2.38**	**2.88**	**0.09**	**0.45**	**0.54**	**83**	**2**
Vehicles (FWD)	0.32	1.84	2.16	0.06	0.34	0.41	85	1
Motorcycles	0.18	0.54	0.72	0.03	0.10	0.14	75	-
2. EQUIPMENTS & MATERIALS	**0.06**	**0.17**	**0.22**	**0.01**	**0.03**	**0.04**	**75**	**-**
Equipment	0.04	0.11	0.14	0.01	0.02	0.03	75	-
Furniture	0.02	0.06	0.08	0.00	0.01	0.02	75	-
C. SERVICES	**19.51**	**17.24**	**36.75**	**3.66**	**3.24**	**6.90**	**47**	**20**
Training, Sensitization, Workshops, Sem. etc.	0.26	0.31	0.57	0.05	0.06	0.11	55	-
Technical Assistance & Consultancies	0.01	0.24	0.25	0.00	0.04	0.05	95	-
Contractual Services	18.94	16.32	35.26	3.56	3.06	6.62	46	19
Audit	0.30	0.37	0.67	0.06	0.07	0.13	55	-
D. MISCELLANOUS	**23.91**	**35.86**	**59.77**	**4.49**	**6.73**	**11.22**	**60**	**32**
II. Recurrent Costs	**2.40**	**3.61**	**6.01**	**0.45**	**0.68**	**1.13**	**60**	**3**
A. **DAILY SUBSISTENCE ALLOWANCES**	0.74	0.40	1.14	0.14	0.07	0.21	35	1
B. OPERATION & MAINTENANCE	**1.23**	**2.85**	**4.08**	**0.23**	**0.54**	**0.77**	**70**	**2**
Vehicles	1.22	2.84	4.05	0.23	0.53	0.76	70	2
Equipment	0.01	0.01	0.03	0.00	0.00	0.00	55	-
C. GENERAL OPERATING CHARGES	**0.43**	**0.35**	**0.79**	**0.08**	**0.07**	**0.15**	**45**	**-**
Total BASELINE COSTS	**73.54**	**110.39**	**183.93**	**9.22**	**13.83**	**23.05**	**60**	**100**
Physical Contingencies	4.54	8.20	12.74	0.57	1.03	1.60	64	7
Price Contingencies	6.05	3.44	9.49	0.76	0.43	1.19	36	5
Total PROJECT COSTS	**84.13**	**122.03**	**206.17**	**10.54**	**15.29**	**25.83**	**59**	**112**

Table 2.5: Summary Project Cost Schedule by Components (US$ Million)

COMPONENTS	2014	2015	2016	2017	2018	Total
A. COMMUNITY-DRIVEN PARTICIPATORY ADAPTATION	**3.37**	**3.41**	**3.45**	**3.50**	**3.54**	**17.26**
Integrated Community-Based Adaptation	2.72	2.74	2.75	2.77	2.78	13.76
Support to Participatory Adaptation	0.64	0.67	0.70	0.73	0.76	3.50
B. CONSTRUCTION AND REHABILITATION OF CLIMATE RESILIENT ROADS	**-**	**9.06**	**8.44**	**-**	**-**	**17.50**
C. PROJECT MANAGEMENT AND COORDINATION	**1.76**	**0.58**	**0.53**	**0.54**	**0.55**	**3.96**
Total PROJECT COSTS	**5.13**	**13.05**	**12.42**	**4.04**	**4.09**	**38.72**

2.4.2 *Project Financing Arrangement*: The project will be jointly financed by the SCF and the Government of Zambia (Table 2.6-A). The SCF will provide financial assistance to the tune of US$ 38.00 million, representing 82.50 % of the project cost, excluding taxes and customs duties. The SCF financing will be in the form of a grant of US$ 20.50 million and a loan of US$ 17.50 million. The contribution from the Zambian Government is estimated at US$ 0.72 million and will be cash financing or in-kind contribution. The breakdown of financing for the project is presented in the Table 2.6 and 2.7 below.

Table 2.6: Financing Plan of the project (ZMW/US$)

FINANCING SOURCES	(ZMW Million)			(US$ Million)			Financing %
	Local	Foreign	Total	Local	Foreign	Total	
SCF Grant	48.89	60.27	109.16	9.18	11.32	20.50	52.9
SCF Loan	33.99	59.19	93.18	6.38	11.12	17.50	45.2
Government of Zambia	1.25	2.57	3.83	0.24	0.48	0.72	1.9
Total	84.13	122.03	206.17	15.80	22.92	38.72	100.0

Table 2.7: Allocation of the Project Financing by List of Goods and Services (US$ Million)

LIST Of GOODS & SERVICES	SCF Grant			SCF Loan			Gov. of Zambia			TOTAL		
	Local	Foreig.	Total	Local	Foreig.	Total	Local	Foreig.	Total	Local	Foreig.	Total
A. WORKS	**-**	**-**	**-**	**4.99**	**9.26**	**14.24**	**0.12**	**0.35**	**0.46**	**5.10**	**9.60**	**14.70**
Constructions & Rehabilitations	-	-	-	-	-	-	0.12	0.35	0.46	0.12	0.35	0.46
Roads	-	-	-	4.99	9.26	14.24	0.00	-	0.00	4.99	9.26	14.24
B. GOODS	**0.11**	**0.48**	**0.58**	**-**	**-**	**-**	**0.00**	**0.00**	**0.00**	**0.11**	**0.48**	**0.58**
1. VEHICLES	**0.09**	**0.45**	**0.54**	**-**	**-**	**-**	**0.00**	**-**	**0.00**	**0.09**	**0.45**	**0.54**
Vehicles (FW)	0.06	0.34	0.41	-	-	-	0.00	-	0.00	0.06	0.34	0.41
Motorcyles	0.03	0.10	0.14	-	-	-	-	-	-	0.03	0.10	0.14
2. EQUIPMENT & MATERIALS	**0.01**	**0.03**	**0.04**	**-**	**-**	**-**	**0.00**	**0.00**	**0.00**	**0.01**	**0.03**	**0.04**
Equipment	0.01	0.02	0.03	-	-	-	0.00	0.00	0.00	0.01	0.02	0.03
Furniture	0.00	0.01	0.02	-	-	-	0.00	-	0.00	0.00	0.01	0.02
C. SERVICES	**3.57**	**3.16**	**6.72**	**-**	**-**	**-**	**0.10**	**0.08**	**0.18**	**3.66**	**3.24**	**6.90**
1. TRAINING	0.05	0.06	0.11	-	-	-	0.00	-0.00	0.00	0.05	0.06	0.11
2. TECHNICAL ASSISTANCE & CONSULTANCIES	0.00	0.04	0.05	-	-	-	0.00	-	0.00	0.00	0.04	0.05
3. CONTRACTUAL SERVICES	**3.46**	**2.98**	**6.44**	**-**	**-**	**-**	**0.10**	**0.08**	**0.18**	**3.56**	**3.06**	**6.62**
Farm-Level Support System	0.95	0.78	1.74	-	-	-	0.00	-	0.00	0.95	0.78	1.74
Support to Local Communities	1.70	1.39	3.08	-	-	-	-	-	-	1.70	1.39	3.08
Contractual Support at Secretariat	0.58	0.48	1.06	-	-	-	0.00	-	0.00	0.58	0.48	1.06
Attached Staff	-	-	-	-	-	-	0.10	0.08	0.18	0.10	0.08	0.18
Funds Manager - Matching Grants	0.23	0.34	0.56	-	-	-	-	0.00	0.00	0.23	0.34	0.56
4. AUDIT	0.06	0.07	0.13	-	-	-	0.00	-	0.00	0.06	0.07	0.13
D. MISCELLANEOUS	**4.49**	**6.73**	**11.22**	**-**	**-**	**-**	**0.00**	**0.00**	**0.00**	**4.49**	**6.73**	**11.22**
Micro-Project for Community-Level Infrastructure	2.78	4.17	6.94	-	-	-	-	-	-	2.78	4.17	6.94
Matching Grants	1.71	2.57	4.28	-	-	-	0.00	0.00	0.00	1.71	2.57	4.28
E. OPERATING COSTS	**0.45**	**0.68**	**1.13**	**-**	**-**	**-**	**0.00**	**0.00**	**0.00**	**0.45**	**0.68**	**1.13**
Unallocated	0.57	0.27	0.84	1.40	1.86	3.26	0.02	0.06	0.08	1.99	2.19	4.18
Total	**9.18**	**11.32**	**20.50**	**6.38**	**11.12**	**17.50**	**0.24**	**0.48**	**0.72**	**15.80**	**22.92**	**38.72**

2.5. Project's target area and population

The principal target group for the project are 800,000 direct beneficiaries (of which 350,000 are women) and 1,772,000 indirect beneficiaries that depend to a high degree on rainfed agriculture and natural resources for subsistence and livelihood from nine (9) districts in the Kafue sub-basin which will include: Choma, Kalomo, Namwala, Monze and Mazabuka in the Southern Province; Itezhi-tezhi, Chibombo and Mumbwa in the Central Province; and Kafue in the Lusaka Province. Three (3) wards from each district were selected through a participatory process with the local governments (see Technical Annex for a full list of the wards) based on: (i) their degree of exposure to the impacts of climate change (droughts and floods); (ii) fiduciary capacity based on an agreed scoring method; (iii) presence of partners (non-governmental organizations) currently operating in the districts with experience in participatory planning on community-based adaptation; (iv) opportunities for participation of women and youth; and, (v) potential for job creation.

2.6. Participatory process for project identification, design and implementation

2.6.1 The project activities were selected through an extensive participatory process which was initiated during the preparation of the Strategic Programme for Climate Resilience (SPCR) and continued throughout the identification, preparation and appraisal of the SCRIKA project**.** Extensive consultations with communities in the 9 districts where the project will intervene were undertaken through focused groups, workshops and field visits to determine the impacts of droughts and floods to the communities, their farms and assets including the coping measures currently being adopted. The outcome of the consultations and field visits indicated, (i) excessive precipitation leading to water logging, and erosion and hindrance to field operations, (ii) increased frequency of droughts in terms of seasons, (iii) shortened growing season and flash floods, all of which are having negative impacts on food security, livelihoods and adaptive capacity of the vulnerable communities. It was from these consultations that a list of potential adaptation measures and project sites were selected and subsequently validated at the community, district, provincial and national consultation workshops. The implementation arrangements were discussed and agreed with the communities, district planners, provincial planners and national stakeholders through consultative workshops held during the preparation and appraisal missions.

2.6.2 Through five (5) joint missions carried out between the AfDB, the World Bank and the IFC, three SPCR projects were developed and agreed between the cooperating partners. As part of the mission, consultative workshops were organized with, (i) rural communities impacted by climate change and variability in the Kafue basin; (ii) development partners currently supporting climate change initiatives in Zambia; (iii) the private sector; (iv) government agencies; and, (v) civil society organizations. The meetings were held to discuss the findings, and identify synergies and complementarities across individual projects funded by other cooperating partners. The findings from the meetings informed the selection and design of the project components for each of the three projects as well as the project sites. During the preparation of the SESA, detailed consultations with the affected communities and other stakeholders were undertaken to design mitigation measures and validate the project sites. The SESA report was publicly disclosed within the country. The consultative process has succeeded in establishing a platform of more than forty (40) different institutions involved in the Zambia's Climate Change Program through three (3) inter-linked thematic platforms, (i) climate information, (ii) climate resilient agriculture, and (iii) climate resilient

infrastructure. Regular meetings were held to share knowledge and experiences on climate change adaptation. Consultations with potential beneficiaries on their needs/preferences for climate change adaptation measures will continue during implementation of the Project.

2.7. Bank Group experience and lessons reflected in project design

2.7.1 The project design has benefited from lessons learnt from implementing similar Bank-funded projects, and from other donor funded projects in the area of climate change adaptation**.** In Zambia, the Bank has supported the Small-scale Irrigation Project (UA8.04 million), the Community Water Management Improvement Project (UA0.7 million), and the Agriculture Marketing Promotion and Regional Integration Project (UA6.16 million) all of which have incorporated climate change adaptation activities to safeguard communities.

2.7.2 The project has also distilled lessons from experience gained in designing investment projects under the PPCR in Mozambique and Niger. Lessons learned include: (i) mobilizing rural communities under the concept of community driven development and integrating innovative climate change activities into government structures at the local level are important conditions for scaling-up and sustainability, (ii) achieving successful climate change adaptation initiatives entail going beyond a focus on natural resource-based economic activities to include opportunities for job creation outside of the agricultural sectors to release the pressure on the natural resource base, and (iii) the use of output and performance based road contracting for rehabilitating roads guarantees sustainability of the roads.

2.8. Project's performance indicators

The key project performance indicators are as follows:

KEY PERFORMANCE INDICATORS
Impact Indicators
1. Change (%) in communities (in areas at risk) whose livelihoods have improved; 2. Reduction in damage / losses from extreme climate events; 3. Increase (%) in food security;
Outcome Indicators
1. Extent to which vulnerable communities, private businesses and public sector services use improved PPCR supported tools to respond to climate variability or cc; 2. Reduction in crop areas affected by droughts and floods during extreme climate events in pilot districts; 3. Increase in agricultural productivity with % change in yields; 4. Extent to which climate responsive instruments / investment road models are developed6
Output Indicators
1. Number of micro-projects supported to upgrade community- and farm-level infrastructure; 2. Amount of financial resources (US$ million) spent for on activities in support of farm-level systems plans for promotion of good practices; 3. No. of medium to large-scale investment projects supported through matching grants for CC adaptation; 4. Number of training sessions in support to local government and community groups in integrating climate risks management in local development planning; 5. Number of km of farm-to-market strategic access roads established or rehabilitated; 6. Status of implementation of annual budget-program and ESMP;

[6] *PPCR Core Indicator B.1*

7. Number of updated procurement plans submitted to Bank approval;
8. Number of supervision missions per year;
9. Annual disbursement rate;
10. Number of QPR & annual audits annually;
11. MTR and PCR reports approved;

III – PROJECT FEASIBILITY

3.1. Economic and financial performance

3.1.1 The financial and economic assessment is based on the assumptions that, (i) the project will be fully implemented and in a timely manner; (ii) the project is expected to generate direct benefits for about 800,000 people, 300,000 of which were expected to live below current poverty line; (iii) the number of possible farm households is 160,000, on the basis of 5 family members; (iv) the size of the potential farmland is 240,000 ha, on the basis of an average farm size of 1.5 ha, of which 96,000 ha or 40% of the potential farmland can be cropped. The remaining 60% of the potential farmland is for future development, in line with good practices regarding cropping pattern in production scale; (v) only 45% of the cropland or 43,200 ha are actually considered for cropping and 52,800 ha are the natural tree cover for the ecological balance, in line with good farming practices; (vi) the period of the analysis is 20 years, in accordance with the cropping cycle patterns and the duration of the farm investment; (vii) The average opportunity cost of capital estimated at 11.5% was used for discounting, as the project resources are fungible and can be used for other alternative uses, including in areas other than the climate resilience; and, (vii) the assessment of the project's worth was carried with respect to the overall project cost, as opposed to component-by-component approach analysis, as components are not implemented on a stand-alone basis.

3.1.2 On the basis of the above-captured assumptions, the project is expected generate the following benefits: (i) improved production of *non-timber forest products* from the 52,800-ha natural tree cover, such as, honey, mushrooms, medicinal plants, edible fruits, grains and plants, products from game ranching; (ii) Improved crop production from 43,200 ha, including, sugarcane, cotton, maize, cassava, vegetables, and legumes; (iii) improved livestock products, such as, chicken, goats, sheep, and pigs; and, (iv) improved fish production from the restocking of ponds and water bodies.

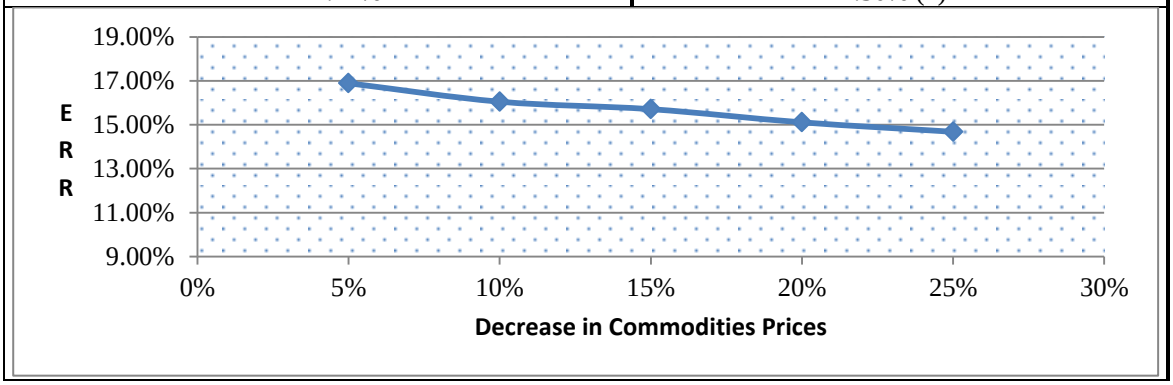
3.1.3 ***Financial Performance*:** the financial analysis was carried with Farmod approach based on: (i) crop and activity models using prevailing 2013 market prices of productions and inputs (investment and operating inputs, including, planting materials, fertilizers, irrigation, small equipment, and labor); (ii) area/family household models or farm models; and (iii) farm distribution. In this condition, the analysis generated NPV, IRR and B/C ratio equal to 356.22 million, 15.12 % and 1.61, respectively, as captured in the technical annexes.

3.1.4 ***Economic Performance*:** The economic analysis was conducted with the same approach on the basis of shadow prices (prices in conditions of efficient market operation) of tradable crops (maize, cotton, and sugar cane) or parity prices at farm gate (farm gate prices). Although maize is not exported, it was treated in the analysis, as import substitute. In addition, other benefits were included, such as, the carbon sequestration, farm to market access road benefits (increase volume and frequency of marketable crops), access to social

services benefits (reduction in the medical bill) and the reduction of women's households' chores (increased productivity). However, these additional benefits which were computed using dose responses, captured benefits only partially. In these conditions, the economic analysis yielded an NPV, ERR and B/C ratio equal to 489.11 million, 16.89% and 2.02, respectively, as captured in the technical annexes.

3.1.5 ***Sensitivity Analysis*:** The sensitivity analysis was undertaken, as a refinement of the economic analysis, to assess the robustness of the project economic worth. Therefore, the volatility of commodity prices was considered to be the most sensitive endogenous variable of the economic model, due to the fact that it was one of the most critical variable that was beyond project management and control. In these conditions, we noticed that with scenarios of successive price decreases from -5% to -25%, ERR value also dropped from 16.89% to 14.68%, but slower that the price drops. This is also translated into graph with a smooth slope close to zero. In this condition, breaking even at ERR equals to opportunity cost of capital of 11.50%, requires a price drop of switching value of 41.22 %. Therefore, the economic performance of the project in this model is robust, as reflect in the table below.

SENSITIVITY ANALYSIS	
Decrease in commodity Prices	Corresponding ERR Value
-5%	16,89%
-10%	16,05%
-15%	15,71%
-20%	15,11%
-25%	14,68%
Switching Value	
-41.22%	11.50% (*)



(*) OCC: opportunity Cost of Capital

3.2. Environmental and Social Impacts

3.2.1 **Environment:** The Project is classified as Environment Category 2 according to the Bank's Environmental and Social Assessment Procedures (ESAP) which was validated by the Quality Assurance and Results Department (ORQR.3) on 4th March, 2013. The Project which is geared toward reducing the impacts of climate change is expected to generate both positive social-economic and environmental impacts that will outweigh the likely negative impacts. The infrastructure to be developed / rehabilitated will be small-scale in nature (community level infrastructure) and hence will not induce any potential, significant or irreversible environmental and social impacts. In addition, the project will not involve land acquisition or resettlement. The infrastructure investments supported by the Project will generate site-specific and short-term negative environmental impacts which will mainly occur during the construction phase to include: soil erosion particularly in degraded lands,

increased turbidity in water sources form soil run-off, limited reduced vegetation cover due to cleared land to pave way for construction activities, increased localized noise due to earthmoving equipment and machinery, and dust emissions. A Strategic Environmental and Social Assessment (SESA) report describing measures to mitigate the negative impacts which include re-vegetating cleared land, restoration of borrow-pits, use of gabions and appropriate drainage systems to control erosion, installation of systems for solid waste and effluent management and providing appropriate Personal Protective Equipment (PPE) to the workforce. The total cost of mitigation measures is UA 402,030 (See Technical Annex B8).

3.2.2 Positive impacts on the environment are likely to result from the community-driven adaptation activities which promote the use of sustainable land and water management practices incorporated into the main agricultural production systems. The adaptation activities will include micro-projects for flood control and diversion structures, small-scale irrigation schemes, improved wells and boreholes, reforestation of small-scale community forestry, conservation agriculture, livestock and fisheries for diversification of farming systems, etc. Positive environmental impact will likely include reduced soil and water erosion, increased soil fertility through moisture retention, safeguards/buffers against floods (increased resilience against climate variability in the form of floods), and potential in reducing greenhouse gas emissions through the use of approaches such as conservation agriculture. Potential positive impacts include improved moisture retention and soil composition from agriculture diversification, control of soil erosion, increased agro-biodiversity, reduced water stress, control of disease vectors, and enhanced community skills for better land use planning and management.

Climate Change

3.2.3 Over the last four decades, the Kafue basin has experienced an increased mean annual temperature of 1.3 degrees C, and decreased mean rainfall of 1.9mm/month, whereas rainfall seasons have become less predictable and shorter, with rainfall occurring in fewer but more intense events. From 2000 to 2007, the intensity and frequency of droughts and floods and the number of people affected has also changed, with a net trend towards more floods and, over a longer time-period, droughts. Moreover, the area affected by floods and droughts appears to have expanded. The 2006/07 floods affected 41 districts in nine provinces, and the 2004/05 drought left nearly two thirds of Zambia with little or no rainfall. Both average annual temperature and rainfall are projected to increase by 3.6 degrees C and 3% respectively by 2100. The predominant coping strategies adopted by the communities, include, reducing meal quantities, numbers and composition (shifting to a vegetable only diet and relying on less preferred wild foods. The Project activities will promote climate change adaptation and foster diversification of livelihoods which will ultimately enhance the climate change adaptive capacity farmers and natural ecosystems. The project will significantly support the adoption of sustainable management of land and water resources, strengthen adaptive capacity of communities through training and develop skills and demonstration sites for conservation during the dry seasons, restoration of degraded lands and increased vegetation cover with different drought perennials.

Gender

3.2.4 The project design is participatory by nature and includes specific provisions to target the most vulnerable households. This includes about 75% of all women-headed households (which in turn comprise about a third of the total households in target districts). The project

design allows for the deliberate targeting and monitoring the impact of the project on women and women-headed households, the youth, and other vulnerable groups. The support systems will target enterprises that can be operated by such groups to link to enhance productivity and market linkages. The project will partner with and build upon the experience of NGO to identify and assist vulnerable households. The civil works will also engage women to allow them raise some income in the short term. Women and youth will be specifically targeted for road clearance work that is compatible with their other economic and social activities. Capacity building and training for youth ad women enterprise groups will be targeted and performance measurement of the project will be tied to this. The key gender impacts of the Project include increased women's engagement in (i) management of data and information on floods and droughts, (ii) in local level disaster risk management activities, and (iii) employment generated through civil works and other project related activities.

Social

3.2.5 The project will support climate adaptation initiatives such as water harvesting infrastructure, conservation farming, farm-to-market roads, and small-scale irrigation, which will generate increased agricultural productivity and reduced human and asset losses which in turn will generate multiplier effects on the targeted communities through increased income and creation of job opportunities especially to the 30% of targeted women. Rehabilitation works on the existing rural roads will entail upgrading of drainage systems to climate proofed design standards, dredging and erosion control measures (embankment stabilization with earthworks and vegetative approaches). The infrastructure works will enhance the climate resilience against floods. The project is expected to generate significant social benefits through reduced vulnerability to flooding and limiting land degradation trends. Select public works focused on soil and water conservation activities will mitigate the effects of floods and other extreme events and provide a more secure social environment for targeted populations. Improvements in drainage are likely to result in reductions in water-borne diseases and a reduction in the frequency and impact of flooding on households and businesses. In the project areas where climate adaptation practices will be introduced, the expected socioeconomic benefits for the communities derive from the reduced impact from climate change. Overall the project is expected to contribute positively to employment and livelihood opportunities and provide an environment conducive to the expansion of local economic activity.

Involuntary resettlement

3.2.6 There will be no involuntary resettlement. The community infrastructure will be developed on demand driven basis, consequently they will be located in areas which have already been identified by the local communities requiring no resettlement. The feeder roads earmarked for rehabilitation will follow the existing alignment requiring minor adjustment within the road reserve.

IV – IMPLEMENTATION

4.1 Implementation Arrangements

4.1.1 Institutional arrangements for project implementation. The executing agency is the Ministry of Finance (MoF). A climate change secretariat has been established within the MoF for the purpose of coordinating and leading all climate change initiatives in Zambia including PPCR projects. The Secretariat has been operational for a year and is staffed with a national coordinator, participatory adaptation expert, financial management expert, procurement expert and an M&E expert. The project will recruit a Project Manager in the Secretariat to manage its implementation.

4.1.2 The project will be implemented over a period of five years (60 months). The approach of the project is to involve existing groups of farmers and the local communities in climate risk planning, implementation and evaluation of Project interventions so as to strengthen the capacity, enhance adoption of new technologies and practices that reduce climate vulnerability, and increase the sustainability of Project outcomes. Farm and community level activities will be technically guided and backstopped primarily by two sources: (i) line departments of the government at the District level, and (ii) local NGOs who will be contracted by the Project to support facilitation, social mobilization, community preparedness and capacity building.

4.1.3 At the national level, the National Climate Change Secretariat under the Ministry of Finance (MoF) will have the overall lead responsibility for project execution (including fiduciary responsibilities), while working closely with all the line Ministries and Cooperating Partners currently supporting climate change activities in Zambia The project will support the establishment of a project team to be housed within the Secretariat charged with the responsibility of implementing the AfDB administered project. At the district level, the implementation of the project will build on existing government structures and will specifically use the planning sub-committee of the District Development Coordination Committee (DDCC) as the focal point. At the community level, the Ward/Area Development Committee (ADC) comprising field staff from the Government and community leaders will work closely with the non-governmental organizations in mobilising the communities, sensitizing and facilitating participatory climate risk planning. Participatory planning process will be used to identify and pilot concrete adaptation measures focusing on water, crops, fisheries, forestry, wildlife and livestock management to promote climate resilience. Restoration of degraded agro-ecosystems will be enhanced through adoption of sustainable land management practices. With regard to the community-based adaptation interventions, grants will be given the community to finance the small-scale adaptive interventions.

4.1.4 **Roads Implementation:** The Road Development Agency (RDA) will be the implementing agency for the road works and consulting services for works supervision. The entity is currently implementing two Bank funded transport sector projects and therefore has the requisite expertise to implement the project. The RDA will assign a roads coordinator (RC) for close follow up and timely response to correspondence forwarded from the consultant and contractor. The RC for the works and services will be a civil engineer with a minimum of 4 to 7 years' experience in road project management. The RC will prepare and forward quarterly reports to the Secretariat. The PC will attend all site meetings, follow day to day operations including disbursement requests and participate in the preparation of the joint Project Completion Report within six (6) months after 98% disbursement rate. The RDA

has assigned an RC with the requisite qualifications and experience whose Curriculum Vitae (CV) has been reviewed and found acceptable.

4.1.5 **Financial Management:** The Bank carried out financial management assessment of the Secretariat under the Ministry of Finance (MoF**)** and responsible for overall project execution and coordination in accordance with the Bank's Guidelines for the Financial Management and Financial Analysis of Projects (2007) and ORPF FMS Tool Kit (Provisional, June 2010); to determine whether the NCCS, has acceptable financial management arrangements to manage project resources in an efficient, effective and economic manner. The assessment concluded that NCCS's financial management capacity satisfy the Bank's minimum requirements. The overall financial management residual risk for the project is assessed as Moderate**.** In line with the Bank's commitment to the Paris Declaration on Aid Effectiveness (2005) and Accra Agenda for Action (2008), country financial management systems to the maximum extent possible for managing the proposed project with appropriate mitigation measures.

4.1.6 The overall responsibility for financial management will rest with the NCCS's Financial Management Specialist, as the head of the finance department; who will be supported by two dedicated project accountants with adequate qualifications and experience accepted to the Bank. Provincial and District Accountants within the project affected areas will provide the necessary backstopping at the local levels. The project will be required to prepare and submit to the Bank Interim Quarterly Progress report (IQPR) not later than 30 days after the end of each calendar quarter. Annual financial statement prepared and audited by the Office of the Auditor General (OAG), 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 through short-lists (with the involvement of OAG) using the Bank rules and procedures for procurement, and the cost of audit will be financed from the loan if carried out by a private firm.

4.1.7 **Procurement Arrangements:** All procurement of goods, works and acquisition of consulting services financed by the Bank will be procured in accordance with the Bank's Rules and Procedures using the relevant Bank Standard Bidding Documents, and the provisions stipulated in the Financing Agreements. The Bank undertook an assessment of the country's National Public Procurement Procedures and a report was released and shared with the Government of Zambia in June 2011. The assessment revealed a few deviations which were inconsistent with the Bank's procurement principles. For this reason the country's NCB procedures cannot be used until the issues identified in the report are addressed to meet the Bank's fiduciary requirements.

4.1.8 Procurement of Goods, Works and Consultancy Services will be carried out by the National Climate Change Secretariat under the Ministry of Finance in collaboration with the Procurement and Supplies Unit in the Ministry of Finance while the Road Development Agency will provide procurement support for the civil works involving roads rehabilitation. The activities under the Community Demand Driven Participatory Adaptation component which will finance community led infrastructure projects will be procured at the community level using modalities for procurement under community demand-driven development procedures. The details for procurement processes under this component will be articulated in the Participatory Adaptation Implementation Manual based on the Bank's Guidelines for Procurement Under Community-Based Investment Projects.

4.1.9 Procurement procedures for the demand driven component will be incorporated in a Participatory Adaptation Implementation Manual. This manual will also define the roles and responsibilities, internal and external controls, approval and accountability systems. The procurement details and modalities at central and community levels are detailed in the Procurement Technical Annex.

4.1.10 **Disbursement Arrangements:** The project will use the Bank's disbursement methods including (i) Direct Payment, (ii) Special Account (SA) and (iii) Reimbursement methods in accordance with rules and procedures as set out in the Disbursement handbook. Two separate Special Accounts in foreign currency (one each for the Loan and Grant respectively) will be opened at the Bank of Zambia (BoZ). The MoF on behalf of the project will transfer funds from the respective SA through the Treasury Control 99 to the respective project Kwacha sub-accounts held at BoZ and managed by the Secretariat. To facilitate payment of eligible project expenditures, two separate Accounts (one each for the Loan and Grant) with zero balance linked to the sub-accounts at BoZ, will be opened at local Commercial Banks in Lusaka with wider network branches especially in the project-affected districts and acceptable to the Bank. The Bank will issue a Disbursement Letter of which the content will be discussed and agreed during negotiations. Detailed financial management, disbursement and auditing arrangements are included in Annex B4 as part of the technical annexes.

4.2 Monitoring and Evaluation

4.2.1 Monitoring and evaluation (M&E) of the project activities will be carried out as a regular management function by the Secretariat which is under Ministry of Finance (MOF) to ensure that services and outputs delivered by the project conform to acceptable SPCR result framework. The Secretariat will be in charge of internal M&E. It will prepare quarterly and annual progress reports and a mid-term review (MTR) report. The M&E staff who will be appointed by the Government will be in charge of the effective monitoring and evaluation of the project implementation. In addition, the project design has made a provision for recruitment of M&E expert for 6 person-months in each participating institution. Under this activity, a baseline inception study will be undertaken by the designated staff and experts in charge, within the first three months of commencement of the project and upon completion of the Project Monitoring and Evaluation Plan.

4.2.2 Based on the result of the project monitoring and evaluation plan, a project monitoring and evaluation system will be setup on the basis of the project matrix, comprising a series of key performance indicators developed in Section 2.6. The project performance tracking will be systematically measured against these performance indicators and the project annual work program will be established and approved on the basis of the annual targets of the indicators. To ensure sustainability, the M&E system will be mainstreamed into existing institutional frameworks, considering that all the SPCR provide an existing M&E framework that could be adapted to meet project needs.

4.2.3 The Secretariat shall provide the Bank with quarterly progress reports of the project implementation achievements. In addition, monitoring of the project will be done through the Bank's supervision missions every nine (09) months, in accordance with the Bank Group's Operations Manual. A mid-term review will be undertaken during the second year of implementation in 2016 to identify any major constraints facing the project and provide the

required corrective measures. The availability of timely and regular monitoring and evaluation systems and results will enhance the efficient management of the project. Support will be provided for a number of activities including: (i) assessment of the overall situation regarding the project; (ii) development of baselines and monitoring indicators (iii) establishment of national monitoring and evaluation systems. The project will also be closely monitored by the Bank's Zambia Field Office (ZMFO). The project outputs and outcomes will be reviewed at mid-term and at project completion.

4.2.4 Roads Monitoring: The RDA has assigned a project coordinator with the requisite qualifications and experience that will monitor the implementation of the works. The day to day activities of the civil works including oversight of the implementation of the mitigation measures to mitigate the environmental negative effects will be monitored by a supervision consulting team. Monthly and quarterly reports will be submitted to the Bank and will include physical, financial, social and environmental indicators that the project has achieved. The reports will provide updated information on project implementation highlighting key issues and problem areas and recommended measures for resolving identified bottlenecks. At least two field missions will be undertaken annually to the sites to monitor progress.

4.3. Governance

4.3.1 Zambia has made significant progress in the area of participatory development planning, budgeting, financial accountability and transparency and has recently received glowing global recognition for improved performance on key indicators of governance and economic management, including control of corruption, rule of law, regulatory quality and Government effectiveness. However, some weaknesses still remain in ensuring budget credibility, lack of full compliance with internal control regulations, timely follow-up and implementation of both internal and external audit recommendations. Budgetary tracking by stakeholders is now facilitated by a summarised People's Budget and quarterly Budget Performance Bulletins produced by MoF for key stakeholders, though more transparency on the revenue generation side is required.

4.3.2 The project has incorporated mitigation measures to address these weaknesses, including: (i) production of tailor-made financial management procedures manual that will provide guidance to staff; (ii) using Internal Audit function to undertake pre-audit of Project transactions; and (iii) provision of accounting software to record and process transactions and interface it with IFMIS to facilitate timely project financial reporting given the operational challenges with IFMIS, and (iv) enforcing a system of submitting interim quarterly progress report (IQPR) not later than 30 days after end of each quarter.

4.4. Sustainability

4.4.1 The project falls within the framework of the Government national development programmes to enhance climate resilience and economic diversification. The participatory approach adopted by the Bank in the design and the implementation of the project is an important step towards ensuring the relevance of the investments made and laying of an institutional capacity at community, district and provincial levels for sustainability of planned activities. To address critical issue of poor maintenance services, the beneficiaries will be mobilised, organised into viable self-reliant groups, trained by partners NGOs and

empowered to fully operate and maintain community infrastructure developed by the Project. Community infrastructures will be fully operated and maintained by the beneficiaries through either registered cooperatives or leased out to the private sector after extensive training, as per Government's policy to ensure sustainability. The beneficiaries will be sensitized to assume ownership of the community infrastructure.

4.4.2 In 2002 the government created three road sector Agencies by Acts of Parliament namely; (i) the National Road Fund Agency (NRFA) Act 13 of 2002; (ii) the Road Development Agency (RDA) Act No. 12 of 2002; and (iii) the Road Transport and Safety Agency (RTSA) Act No. 11 of 2002. The reforms in the roads sub-sector have given the Road Development Agency (RDA) the mandate to manage the core road network and the National Road Fund Agency (NRFA) to raise, manage and disburse funds for the management of the network. The Road Transport and Safety Agency (RTSA), oversees road safety issues.

4.4.3 The road sections referred to herein are part of the designated road network and therefore fall within the responsibility of RDA for maintenance. Their sustainability therefore will depend primarily on the ability of RDA and the NRFA to plan, program, finance and implement timely maintenance of the road sections. ROADSIP II being reviewed to cover the next five years includes planning, programming, and implementation of road maintenance in Zambia. A Road Fund (RF) has been established and ring-fenced financing to secure a stable flow of funds for road maintenance. Revenues collected are being fully remitted to the sector for maintenance purposes.

4.4.4 The establishment of the Road Fund has been complimented by gradually increasing the role of the private sector in routine road maintenance that will ensure sustainability of the core road network. The private sector is currently involved in routine maintenance activities through Performance Based Maintenance (PBM) contracts. Presently, over 4,000km is covered by PBM contracts. Beyond sustainability concerns, the PBM contracts are contributing to the development of a strong domestic roads contracting industry over time.

4.5. Risk management

N°	RISKS	MITIGATION MEASURES
1.	Reluctance of communities to adopt innovative measures	• Demonstrations & promotion of innovative changes in production systems • Promotion of the benefits of forest plantations, water resources efficient use and sustainable NRM;
2.	Government's weak disbursement profile	• A comprehensive due diligence was carried out during project preparation on the fiduciary capacity of Provinces and districts. The project selected Provinces and Districts with the best performance;
3.	• Delay in Project implementation due to weak capacity in project administration	• Provide training on project management during launching and supervision missions;

4.6. Knowledge building

This innovative project is expected to generate considerable knowledge on building climate change resilience and adaptation options for local communities. This will add value

to the overall design and management of similar future interventions. Lessons and experiences will be shared within the Bank and other institutions interested in implementing projects. The Project will promote the community participation in adaptation infrastructures and livelihood activities. For sustainability, the rural community infrastructure will be constructed or rehabilitated by the community, either using their own workforce (cooperatives) or recruiting an artisan, with full support from the Project. The Project will demonstrate that the community infrastructures can be ably managed by the community if given the necessary support including start-up capital for the economic enterprises. The process of community engagement and participation will be a learning pilot intervention point for the success and sustainability of the project and also useful database for other potential development projects being planned by GoZ. The Project will work closely with gender related organizations (NGOs) and key stakeholders for purposes of sharing information and learning materials on gender and women empowerment in relation to climate adaptation and development. A CIF lesson learned website has been created with the objective of sharing lessons with among PPCR supported countries.

V – LEGAL INSTRUMENTS AND AUTHORITY

5.1. Legal instrument

The project will be financed pursuant to: (i) an SCF-PPCR loan agreement between the Borrower and the AFDB as Implementing Agency of the SCF Trust Fund; and, (ii) a SCF-PPCR Grant agreement between the Recipient and the AfDB as an Implementing Agency of the SCF Trust Fund.

5.2. Conditions associated with Bank's intervention

5.2.1 Conditions for effectiveness of SCF-PPCR Loan: The SCF-PPCR Loan Agreement will enter into force upon fulfillment by the Borrower of the provisions of Section 12.01 of the General Conditions of the AfDB.

5.2.2 Conditions for effectiveness of SCF-PPCR Grant: The SCF-PPCR Grant Agreement will enter into force upon signature by the Recipient and the AfDB.

5.2.3 Conditions Precedent to First Disbursement of the SCF-PPCR Loan and the SCF-PPCR Grant: The obligations of the Bank to make the first disbursement of the SCF-PPCR Loan and the SCF-PPCR Grant shall be conditional upon the entry into force of the SCF-PPCR Loan and the SCF-PPCR Grant Agreement, respectively, and the fulfillment by the Borrower/Recipient, in form and substance satisfactory to the AfDB, of the following condition:

(i) Provide evidence of the opening of two foreign currency denominated Special Accounts for the Project in a bank acceptable to the AfDB for the deposit of the proceeds of the SCF-PPCR Grant and the SCF-PPCR Loan respectively;

5.2.4 Other Conditions: The Borrower/Recipient shall, in form and substance satisfactory to the Fund/Bank, fulfill the following conditions:

(i) Provide, within six (6) months after the first disbursement, evidence of the recruitment of : (a) a Project Manager, (b) a Climate Change Adaptation expert, (c) a procurement officer, (d) an accountant, and (e) a monitoring and evaluation expert, whose qualifications and experience shall be acceptable to the AfDB.

5.3. Compliance with Bank Policies

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

VI – RECOMMENDATION

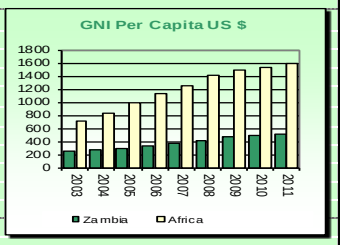
Management recommends that the Board of Directors approve the proposal for a SCF-PPCR grant of US$20.50 million and a SCF-PPCR loan of US$17.5 million to the Republic of Zambia to finance the project, in accordance with the conditions specified in this report.

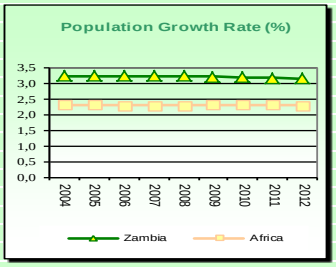
Appendix I. Country's comparative socio-economic indicators

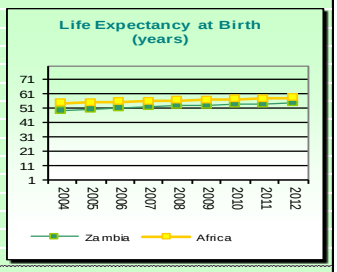
Zambia

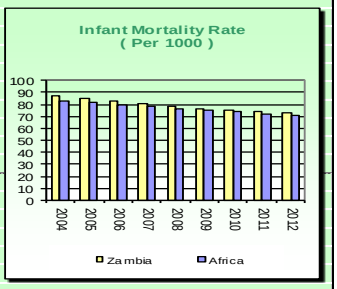
COMPARATIVE SOCIO-ECONOMIC INDICATORS

	Year	Zambia	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km²)	2011	753	30 323	98 458	35 811
Total Population (millions)	2012	13,9	1 070,1	5 807,6	1 244,6
Urban Population (% of Total)	2012	36,1	40,8	46,0	75,7
Population Density (per Km²)	2012	17,9	34,5	70,0	23,4
GNI per Capita (US $)	2011	1 160	1 609	3 304	38 657
Labor Force Participation - Total (%)	2012	40,0	37,8	68,7	71,7
Labor Force Participation - Female (%)	2012	45,7	42,5	39,1	43,9
Gender -Related Development Index Value	2007-2011	0,473	0,502	0,694	0,911
Human Develop. Index (Rank among 186 countries	2012	163	...	...	...
Popul. Living Below $ 1.25 a Day (% of Populatior	2006-2011	68,5	40,0	22,4	...
Demographic Indicators					
Population Growth Rate - Total (%)	2012	3,0	2,3	1,3	0,3
Population Growth Rate - Urban (%)	2012	3,6	3,4	2,3	0,7
Population < 15 years (%)	2012	46,7	40,0	28,5	16,6
Population >= 65 years (%)	2012	3,1	3,6	6,0	16,5
Dependency Ratio (%)	2012	99,0	77,3	52,5	49,3
Sex Ratio (per 100 female)	2012	100,6	100,0	103,4	94,7
Female Population 15-49 years (% of total populatic	2012	22,1	49,8	53,2	45,5
Life Expectancy at Birth - Total (years)	2012	49,4	58,1	67,3	77,9
Life Expectancy at Birth - Female (years)	2012	49,8	59,1	69,2	81,2
Crude Birth Rate (per 1,000)	2012	46,3	33,3	20,9	11,4
Crude Death Rate (per 1,000)	2012	15,0	10,9	7,8	10,1
Infant Mortality Rate (per 1,000)	2012	82,6	71,4	46,4	6,0
Child Mortality Rate (per 1,000)	2012	133,4	111,3	66,7	7,8
Total Fertility Rate (per woman)	2012	6,3	4,2	2,6	1,7
Maternal Mortality Rate (per 100,000)	2010	440,0	417,8	230,0	13,7
Women Using Contraception (%)	2012	45,9	31,6	62,4	71,4
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2004-2010	5,5	49,2	112,2	276,2
Nurses (per 100,000 people)*	2004-2009	70,6	134,7	187,6	730,7
Births attended by Trained Health Personnel (%)	2007-2010	46,5	53,7	65,4	...
Access to Safe Water (% of Population)	2010	61,0	67,3	86,4	99,5
Access to Health Services (% of Population)	2004	90,2	65,2	80,0	100,0
Access to Sanitation (% of Population)	2010	48,0	39,8	56,2	99,9
Percent. of Adults (aged 15-49) Living with HIV/AID	2011	12,5	4,6	0,9	0,4
Incidence of Tuberculosis (per 100,000)	2011	444,0	234,6	146,0	14,0
Child Immunization Against Tuberculosis (%)	2011	88,0	81,6	83,9	95,4
Child Immunization Against Measles (%)	2011	83,0	76,5	83,7	93,0
Underweight Children (% of children under 5 years	2007-2011	14,9	19,8	17,4	1,7
Daily Calorie Supply per Capita	2009	1 879	2 481	2 675	3 285
Public Expenditure on Health (as % of GDP)	2010	5,9	5,9	2,9	8,2
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2010-2012	117,3	101,9	103,1	106,6
Primary School - Female	2010-2012	117,0	98,4	105,1	102,8
Secondary School - Total	2010-2012	...	42,3	66,3	101,5
Secondary School - Female	2010-2012	...	38,5	65,0	101,4
Primary School Female Teaching Staff (% of Total)	2011	51,2	43,2	58,6	80,0
Adult literacy Rate - Total (%)	2010	71,2	67,0	80,8	98,3
Adult literacy Rate - Male (%)	2010	80,7	75,8	86,4	98,7
Adult literacy Rate - Female (%)	2010	61,7	58,4	75,5	97,9
Percentage of GDP Spent on Education	2008	1,3	5,3	3,9	5,2
Environmental Indicators					
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	28,7	40,4
Per Capita CO2 Emissions (metric tons)	2009	0,2	1,2	3,1	11,4









Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators; UNAIDS; UNSD; WHO, UNICEF, WRI, UNDP; Country Reports. *last update : May 2013*

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

Appendix II: Table of AfDB's portfolio in Zambia

Appendix III. Key related projects financed by the Bank and other development partners in the country

Donor Agency	Program Title	Project Coverage	Total Budget (USD)	Implementation Organisation	Project Status
AfDB	Small Scale Irrigation Project (SIP)	Chongwe, Mazabuka, Sinazongwe	13,100,000	Ministry of Agriculture and Livestock	On-going
	Lake Tanganyika Regional Development Programme (PRODAP)	Mpulungu, Kaputa	5,004,100	Ministry of Lands, Environment and natural Resources	On-going
	Community Water Management Improvement Project for traditional Farmers	Mkushi, Kapiri Mposhi, Masaiti and Chingola	942,140	Development Aid from People to people (DAPP)	On-going
Norway	Conservation Agricultural Program Phase II	AEZ 1&2	28,000,000	Conservation Farming Unit (CFU)	On-going
	Expanded Food Security Pack	AEZ 2	2,571,429	Min of Community Development. Mother and Child Health	On-going
	Community Markets for Conservation - COMACO	Eastern Province	8,600,000	Wildlife Conservation Society/COMACO	On-going
European Union	Agricultural Sector Performance Enhancement Programme	Nationwide	11,659,000	Ministry of Agriculture and Livestock	On-going
	Conservation Agriculture Scaling Up Project (CASU)	42 districts	14,541,000	Ministry of Agriculture and Livestock/FAO	New
FAO	Integrated Land Use Assessment II	Nationwide	3,953,096	Ministry of Land, Natural Resources & Environmental Protection Forestry Department	On-going
	UN-REDD Programme – Zambia Quick Start Initiative	Nationwide	2,180,000	Ministry of Land, Natural Resources & Environmental Protection Forestry Department	On-going
IFAD	Rural Finance Programme (RFP)	Nationwide	17,430,000	Ministry of Finance	closing
	Smallholder Livestock Investment Project (SLIP)	North-Western, Western, Southern, Eastern and Northern	14,990,000	Ministry of Agiculture and Livestock	On-going
	Smallholder Agribusiness Promotion Programme (SAPP)	20-30 districts	24,500,000	Ministry of Agiculture and Livestock	On-going
	Smallholder Productivity Promotion Programme (S3P) (co-financed by Finland)	Luapula and Northern Provinces	39,900,000	Ministry of Agiculture and Livestock	On-going
	Rural Finance Services Expansion Programme	nationwide	20,000,000	Ministry of Finance	pipeline
	Smallholder Livestock Investment Project (SLIP) - Supplementary financing	North-Western, Western, Southern, Eastern and Northern	4,500,000	Ministry of Agriculture and Livestock	pipeline
JICA	Rural Extension Service Capacity Advancement Project (RESCAP)	Northern, Western and Lusaka provinces	9,000,000	Ministry of Agriculture and Livestock	On-going
	Rural and Agriculture Development Advisor	Nationwide	1,300,000	Ministry of Agriculture and Livestock	On-going
	Food Crop Diversification Suport Project Focusing on Rice (FoDiS-R)	Muchinga, N/P& WP and follow up in EP, SP, WP & Lsk P	3,100,000	Ministry of Agriculture and Livestock	On-going
	Technical Cooperation Project for Community	Main Luapula, Northern and	5,800,000	Ministry of Agriculture and	On-going

Donor Agency	Program Title	Project Coverage	Total Budget (USD)	Implementation Organisation	Project Status
	based Smallholder Irrigation (T-COBSI)	Muchinga, Copperbelt and NorthWestern Provinces		Livestock	
USAID	Production, Finance & Technology (PROFIT +)	Eastern Province	24,000,000	ACDI/VOCA	On-going
	Food Security Research Project (FSRP), Phase III	Nationwide	12,499,501	Michigan State University (MSU), Indaba Agricultural Policy Research Institute (IAPRI)	On-going
	Expanding Impact in USAID Supported Value Chains	Eastern Province	1,998,519	Action for Enterprise (AFE)	On-going
	Horticulture Global Development Alliance	Eastern Province and Peri-urban Lusaka	4,800,000	ASNAPP, Freshmark, Freshpikt, Stellenbosch University and CETZAM	On-going
	Zambia Agriculture Research and Development Project	Eastern province	18,000,000	CGIAR: IITA, CIMMYT, ICRISAT, CIP, CIAT, World Fish Center, Harvest Plus,	On-going
	Better Life Alliance Global Development Alliance (GDA)	Eastern Province	6,626,605	COMACO; General Mills and Cargill.	On-going
	Zambia Economic Resilience for Improved Food Security (ZERS)		24,000,000	tbd	pipeline
World Bank	Agriculture Development Support Program	National	37,200,000	MAL	On-going
	Irrigation development and Support project	3 Sites	115,000,000	MAL	On-going
	Livestock Development and Animal health project	Selected provinces	50,000,000	MAL	On-going
WFP	Home grown school feeding programme	western, southern, north-western, northern, luapula, muchinga, central and eastern provinces	34,672,210	MoE, MAL	On-going
	Milk for schools		629,412	MAL	On-going
	Disaster Risk Management	nationwide	780,000	DMMU, FAO	On-going
	Food Security for vulnerable groups	nationwide	15,480,006	UNHCR,	On-going
DfID	Support to Musika - Making Agricultural Markets Work for Zambia	nationwide	7,144,000	Musika	on-going
	Access to Finance (includes rural finance)	nationwide	21,432,000	Bank of Zambia and FIs	on-going

PROJECT COST SUMMARY

Summary Project Cost by Component (ZMW/UA)

COMPONENTS	(ZMW Million)			(UA Million)			% FE	% B.C.
	Local	Foreign	Total	Local	Foreign	Total		
A. COMMUNITY-DRIVEN PARTICIPATORY ADAPTATION								
Integrated Community-Based Adaptation	30.19	41.82	72.02	3.78	5.24	9.02	58	39
Support to Participatory Adaptation	9.03	7.39	16.41	1.13	0.93	2.06	45	9
Subtotal	39.22	49.21	88.43	4.91	6.17	11.08	56	48
B. CONSTRUCTION AND REHABILITAITON OF CLIMATE RESILIENT ROADS	26.55	49.30	75.84	3.33	6.18	9.50	65	41
C. PROJECT MANAGEMENT AND COORDINATION	7.78	11.88	19.66	0.97	1.49	2.46	60	11
Total BASELINE COSTS	**73.54**	**110.39**	**183.93**	**9.22**	**13.83**	**23.05**	**60**	**100**
Physical Contingencies	4.54	8.20	12.74	0.57	1.03	1.60	64	7
Price Contingencies	6.05	3.44	9.49	0.76	0.43	1.19	36	5
Total PROJECT COSTS	**84.13**	**122.03**	**206.17**	**10.54**	**15.29**	**25.83**	**59**	**112**

Financing Plan of the project (US$/UA)

FINANCING SOURCES	(US$ Million)			(UA Million)			Financing %
	Local	Foreign	Total	Local	Foreign	Total	
SCF Grant	9.18	11.32	20.50	6.13	7.55	13.68	52.9
SCF Loan	6.38	11.12	17.50	4.26	7.42	11.68	45.2
Government of Zambia	0.24	0.48	0.72	0.16	0.32	0.48	1.9
Total	15.80	22.92	38.72	10.54	15.29	25.83	100.0

Appendix IV. Map of the Project Area