

AFRICAN DEVELOPMENT FUND



MALAWI

AGRICULTURAL INFRASTRUCTURE AND YOUTH IN AGRIBUSINESS PROJECT (AIYAP)

APPRAISAL REPORT

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Currency Equivalents

As of May 2016

1 UA	=	1.41733 USD
1 UA	=	970.428 MWK
1 USD	=	684.6874 MWK

Fiscal Year

1 July – 30 June

Weights and Measures

1 metric tonne	=	2204 pounds (lbs)
1 kilogramme (kg)	=	2.200 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

AfDB	.....	African Development Bank
ASWAp	.....	Agriculture Sector Wide Approach
CAADP	.....	Comprehensive African Agriculture Development Programme
EAD	.....	Environmental Affairs Department
EDO	.....	Environmental District Officer
EPA	.....	Extension Planning Area
ESMP/F	.....	Environmental and Social Management Plan/Framework
GoM	.....	Government of Malawi
GAFSF	.....	Global Agriculture and Food Security Programme
MGDS II	.....	Malawi Growth and Development Strategy II
M&E	.....	Monitoring & Evaluation
MoAIWD	.....	Ministry of Agriculture, Irrigation and Water Development
NAPA	.....	National Adaptation Program of Action
NGO	.....	Non-Governmental Organization
NPP	.....	National Procurement Procedures
O&M	.....	Operation and Maintenance
M&E	.....	Monitoring and Evaluation
PCT	.....	Project Coordination Team
PIPH	.....	Presidential Initiative on Poverty and Hunger
PS	.....	Principal Secretary
PY	.....	Project Year
SCPMF	.....	Smallholder Crop Production and Marketing Project
SIVAP	.....	Smallholder Irrigation and Value Addition Project
UA	.....	Unit of Account
USD/\$	.....	United States Dollars

Loan Information

Client's information

BORROWER:	Government of Malawi
EXECUTING AGENCY:	Ministry of Agriculture, Irrigation and Water Development

Financing plan

Source	Amount (UA)	Instrument
ADF	16.00 million	Loan
EU	1.60 million	Grant
Government	1.76 million	In- Kind
TOTAL COST	19.36million	

Important Financial Information (ADF Loan and EU Grant)

	ADF Loan	EU Grant
Grant/Loan Currency	UA	EUROS
Type of Interest	N/A	N/A
Interest Rate Margin	N/A	N/A
Commitment Charge/Fee	0.5%	N/A
Service Charge	0.75% on disbursement/outstanding loan	N/A
Tenor	40 years	N/A
Grace Period	10 years	N/A
FIRR, NPV (base case)	23%, NPV value at 18% (USD 3.8 million)	
EIRR (base case)	26%, NPV value at 12% (USD 7.2 million)	

Timeframe - Main Milestones (expected)

Concept Note Approval	February , 2016
Project Approval	September, 2016
Effectiveness	February, 2017
Completion	June, 2022
Last Disbursement	September, 2022
Last Repayment	

Project Summary

1 Project Overview

1.1 The Malawi Agricultural Infrastructure and Youth in Agribusiness Project (AIYAP) is to deploy irrigation infrastructure as an enabler and facilitator to address the twin problems of food insecurity and high rate of youth unemployment within the context of 2011-2016 Malawi Growth and Development Strategy (MGDS) which identifies agriculture and food security, irrigation and green belt initiatives as drivers of economic growth. Malawi's agriculture sector is highly vulnerable to the adverse impacts of climate change and extreme weather events, such as dry spells, droughts and floods. The sector is also characterized by low level of irrigation development, and low uptake of improved farm inputs. In addition, low profitability of smallholder agriculture is influenced by weak links to profitable markets which make value addition seemingly impossible because of lack of information between the farmers and the processors, high transport costs, weak farmer organizations, poor quality control, lack of market information, as well as limited participation of the youth in agricultural development and businesses. The proposed project, will develop two large scale irrigation schemes at Linga (Nkhata-Bay) and Dwambazi (Nkhotakota) covering 1945 hectares, targeting 10,000 beneficiaries with special focus on the youth (about 50%). The project is to use irrigation infrastructure as an enabler to scale up the production of maize, rice, sugar and horticulture production and value chain in project areas in particular and Malawi in general.

1.2 The project apart from mitigating the challenges arising from dependency on rain-fed production will also promote youth ownership of agribusiness, access to funding/credit through seed funds, loan facilities and risk sharing from Micro Finance Institutions, agro-processing, engaging in value addition, modern methods of crop diversification and market linkages. Socially, the project by introducing youth skill acquisition, entrepreneurship development and job creation will address social vices such abuse, prostitution, violent crime etc. In addition, the project will also reduce rural and urban migration as well as cross border migration of youth in the targeted areas. It is estimated that within four and half years the project will produce 500 Agripreneurs, train about 100 artisans for the maintenance of irrigation infrastructure, launching 175 new agribusinesses and employing about 4600 additional persons, including out-growers. It is expected that at least 50% of the beneficiaries will be female.

1.3 The project has four components namely (i.) Irrigation Infrastructure & Watershed Management, (ii.) Youth Entrepreneurship, market linkages, agro-processing and Value Addition (iii.) Agro-Cooperative Development and Enhancement and (iv) Project Management and Institutions Strengthening.

2 Needs Assessment:

The need for the Project is justified by the priorities in the Malawi Growth and Development Strategies II (MGDS II: 2011-2016) which emphasizes on agriculture, food security, irrigation and water development. As a consequence, there is an urgent need for transformation of the agriculture sector to enhance sustainable growth and break the cycle of food insecurity as espoused in the National Export Strategy, 2015 Irrigation Master Plan and Investment Framework and the draft National Irrigation Policy, Green Belt Initiative and the National Agriculture Policy focusing on commercialization of agriculture. In addition, the 2013-2018 Malawi National Export Strategy, identifies agriculture value chains driven by private operators including smallholder farmers, youth entrepreneurs, women's groups, MSMEs and large businesses to boost and diversify exports in order to improve Malawi's growth prospects as the bedrock of the economy. The Project is a direct response to GoM's desire to enhance agricultural productivity by promoting irrigated agriculture and dynamize the sector through active youth participation in agribusiness for job creation in order to meet the objectives of these policies.

3 Cost and Financing

The project total cost of AIYAP is estimated at \$US27.50 million (UA19.36million), to be financed by the Bank UA16 million ADF loan, EU €2 million grant (parallel financing) about UA 1.6 million and Government contribution in kind estimated at UA1.7 million.

4 Implementation

The project will have a PIU which staff will be externally recruited through a competitive process and serve on full time basis. The project will recruit competitively a Technical Adviser (TA) at the commencement of implementation ENABLE YOUTH sub-component of the project. The TA will work with the Lilongwe University of Agriculture and Natural Resources (LUANAR) for one year after which LUANAR will take over the full implementation of the component. The PIU will be reporting to the Principal Secretary for the Ministry of Agriculture, Irrigation and Water Development. There will be a Technical Committee comprising Directors of relevant Departments to assist with the implementation. The composition of the Committee will be determined by the Government. The Technical Committee will report to the Project Steering Committee chaired by PS MoAIWD which will approve the work plans and budgets and guide the project on policy matters.

5 Bank's Added Value

The Bank's intervention in this project will add significant value to the investments already made in agriculture and irrigation projects by the Government of Malawi, the Bank and other development partners. It will give impetus and acts as boost to the efforts/programmes of the GoM in youth development through entrepreneurship in agriculture value chains and agribusiness. The project is in line with the TYS 2013-2022 which focusses on inclusive growth and transitioning to green growth. The project focus on youth unemployment through skills development and entrepreneurship in is line with the TYS. Finally, the Bank's intervention has the multiplier effect on economic development through infrastructure development and private sector development in line with the Malawi Country Strategy 2013-2017 and is aligned to three of the five pillars of Bank's 'High 5' i.e. Feed Africa, Industrialise Africa, and Improved livelihood.

6 Knowledge Management

The knowledge gained through the implementation of several projects and studies in the sector in Malawi has been duly applied in designing this project. In the same pattern, the knowledge that will be generated by this Project will contribute significantly to the design and implementation of agricultural interventions within the Agriculture Sector Wide Approach (ASWAp) arrangement and build the capacity of the Ministry of Agriculture, Irrigation and Water Development (MAIWD) and other Ministries particularly the Ministries of Labour, Youth and Manpower Development, and Trade and Industries. Consequently, useful information will be generated for similar future interventions. AIYAP will, in addition to irrigation development, focus on agro-processing and value addition, agriculture cooperative development and agribusiness along agriculture value chains as well as building of entrepreneurship skills and generations of bankable projects in agriculture value chains which will provide lessons in the post-harvest management, processing and marketing of various crops to inform project designs of similar projects in the future. The Bank is a key member of the Donor Committee on Agriculture and Food Security (DCAFS) and the lessons learnt from this project will be shared with other Development Partners through DCAFS platform. ASWAp, through the Bank, will provide information generated from AIYAP to key stakeholders for knowledge sharing and coalition building through the agriculture sector working group. The results from the various studies and surveys, including the socio-economic impact study will inform the stakeholders on how to put the acquired knowledge attributes into practical use for better results-oriented achievements and sustained benefit flows.

Results Based Logical Framework

Country and Project Name: Malawi: Malawi Agricultural Infrastructure and Youth in Agribusiness Project

Purpose of the project: To increase agricultural productivity and incomes of households, develop youth entrepreneurs in agribusiness and poverty reduction in the project area.

RESULTS CHAIN		PERFORMANCE INDICATORS			MEANS OF VERIFICATION	RISKS/MITIGATION MEASURES
		Indicator (including CSI)	Baseline (2015)	Target (2019)		
IMPACT	To Improved standard of living through enhancement of income	. % Reduction in Poverty Level	Nkhotakota(44.5), Nkhata Bay (32.1)	Nkhotakota – (40.5), Nkhata Bay (28.1)		<p>Assumption: Sustained economic growth and good governance</p> <p>Risk #1. Poor Farmers Organisation Mitigation: Strengthen of farmers unions and cooperatives</p>
	2.1.Increased crop production and productivity	1.1.1 Crop production (t'000)	<p>Project Area (Baseline: 2015) 1.1.1 Maize (0.51); Beans (0.075); Rice (0.85); Tomato (0.135); Onion (0.2); /potato (0.125); Sugarcane (0) cassava (2.66). G/nuts (0.075), Banana (0).</p>	<p>Project Area (Targets by 2021) 1.1.1 Maize (4.192) Rice (9.981); Sugarcane (3.78); Tomato (2.9) Onion (0.775) G/nuts (0.32); Beans (0.18), Cassava (2660) & potatoes (0.705). Banana (256)</p>	National Statistical Office (NSO), Integrated Household & demographic survey Project monitoring reports, supervision missions, mid-term and end evaluations	<p>Risk 1: Unpredictability of agricultural markets due to trade restrictions and price controls on some items.</p> <p>Mitigation: The Government is being urged by DPs, to deregulate agriculture markets including removal of bans and pegging the price on some strategic crops such as maize. Enactment of the Goods Control Act would help to improve market predictability.</p> <p>4.5.2 <i>Volatility of the world commodity prices</i> Mitigation: The country enjoys accessibility to SADC market and the project lays emphasis on internal processing of raw materials and value addition.</p> <p>4.5.3 <i>Project Cost Overruns:</i> Project cost overruns due to exchange rate fluctuations, uncertainties in economic situation of Malawi and SADC and the rise in the cost of materials. Mitigation: Project is costed in USD and efficient procurement timing to address the increases, as well as adequate price contingencies</p>
OUTCOME		1.1.2 Crop yield (t/ha)	<p>1.1.2 Maize (2.7); Beans (0.75); Rice (3.0); Tomato (9.0); potato (.10.0); Sugar cane (12) Cassava (24.5) & G/nuts (0.75). Onion (10.5), Banana (15)</p>	<p>1.1.2 Maize (6.0); Beans (1.8); Rice (6.0); Tomato (20); Onion (15.5); potato (18); Sugar Cane (3.78) Cassava (28), G/nuts (2.0), Banana(30)</p>		
		1.1.3 %age value added for each crop	<p>1.1.3 Maize (6); Beans (1.5); Rice (6); Tomato (0); Onion (0); S/potato (20) Sugar cane (0) Cassava (20), G/nuts (2)</p>	<p>1.1.3 Maize (60); Rice (60) Beans (70); Tomato (20); Onion (20) S/potato (80); Groundnuts (90); Cassava (100); & Sugar cane (100), Banana (256)</p>		
	2.2 Increase in number youth engaging in farming and Agribusiness	2.2.1. No of youth in farming and agribusiness	<p>2.2.1 TBD(To be provided with baseline survey)</p>	<p>2.2.1 5000 (50% women)</p>		
	2.3.Increase in Household Income	2.2 Average annual incremental income of farmers (MK)	<p>2.3.1 MWK 791,349</p>	<p>2.3.1 MWK 1,575,120</p>		

OUTPUTS	<p>3. Component 1: Irrigation Infrastructure & Watershed Management 3.1 New Irrigation schemes developed. 3.2 Catchment Management</p> <p>4. Component 2: Value Addition and Youth Entrepreneurship, 4.1 Youth trained in agribusiness 4.2 Agribusiness incubations established 4.3. Youth Agribusiness Established 4.4 Market linkages promoted. 4.5 Agro-processing & value addition supported</p> <p>5. Component 3. Agro-Cooperatives Development for Employability 5.1 Youth networking formed 5.2 Cooperative societies developed and formed 5.3 Total land put into use 5.4 Total farmer trained 5.5 Total Artisans trained</p> <p>6. Component 4: Institutional Strengthening and Capacity Building 6.1 Public Sector staff supported 6.2 M & E established 6.3 Project Coordination</p>	<p>3.1.1 Size of land developed (ha)</p> <p>3.2.1 No of farmers adopting agro-forestry initiative 3.2.2 No of farmers adopting alternative livelihood technologies (% women and youth farmers) 3.2.3 No. of rain water harvesting and soil and water conservation structures 3.2.4 Number of alternative livelihood activities for women</p> <p>4.1.1 No. of youth coordinators trained 4.2.1 Youth Agripreneur trained 4.3.1 Number of Agribusiness established 4.4.1 No of private sectors/value addition entities networked 4.5.1 No of agro-processing centres developed.</p> <p>5.1 Number of youth market networks 5.2.1 Number of youth associations & cooperatives 5.2.2 Number of farmer associations and cooperatives 5.3.1 Rain fed crops (ha) 5.3.2 Irrigated crops (ha) 5.4.1 Number of staff trained 5.4.2 Number of farmers trained 5.5.1 number of local artisans trained</p> <p>6.1.1 No of staff and farmers trained 6.1.2 Consulting firm recruited 6.2 No. of M&E systems established and operational 6.3 Tech. asst., vehicles \$ equipment procured</p>	<p><u>Project Area (Baseline: 2015)</u></p>	<p><u>Project Area (Target Yr 2021)</u> 3.1.1 (1945ha)</p> <p>3.2.1 200 (50% female) 3.2.2 1500 (50% female) 3.2.3 500 3.2.4 3(Bee keeping, mushroom&livestock)</p> <p>4.1.1 Youth Coordinators (4 of which 50% female) 4.2.1 Youth Agripreneurs (500 of which 50% female) 4.3.1 New Agribusiness established (175 of which 50% female beneficiaries) 4.4.1 Number of marketing networks (2) 4.5.1 Centre (2)</p> <p>5.2 youth networks (2) 5.3.1 Youth WUAs (20); Youth cooperatives (20) Farmer WUAs (2); Farmer Cooperatives (2)</p> <p>5.3.1 Area (1945) 5.3.2 Area (1945) 5.4.1 Farmers (4,000 with at least 50% being women); Youth (5,000 with at least 50% being women) 5.5 Local artisans (50 with at least 50% being women)</p> <p>6.1.1 GOM staff (70), Health workers(10)Tech. Support(10) 6.1.2 Consulting firm (4) – including auditor 6.2 M&E system (1) 6.3 Project staff appointed (6), Vehicles and Equipment (4), Office Equipment(TBD)</p>	<p>QPR Project monitoring reports, supervision missions Project</p> <p>Completion Report, Audited financial reports</p>	<p>for the unavoidable increases will is provided in the project costing.</p> <p>4.5.4 <i>Reduced precipitation, increased temperature, change in length of rainy season, increased incidences of drought and floods, due to climate risks:</i> <i>Mitigation:</i> Training regarding vulnerabilities, assisting the communities to select various adaptation measures; e.g. rainwater harvesting, rotational grazing, using drought tolerant varieties e.g. cassava, sorghum etc.</p> <p>4.5.5 <i>Delay in providing counterpart funding:</i> <i>Mitigation:</i> The GoM contributions will largely be in kind in form of provisions of office spaces, furniture, salaries and wages.</p>
	<p>ACTIVITIES</p> <p>Component 1 : Irrigation Infrastructure and Watershed Management: Sub-component: 1.1 Irrigation Infrastructure, 1.2 Watershed management</p> <p>Component 2: Value Addition and Youth Entrepreneurship, 2.1 Youth entrepreneurship 4.2 Agro-processing 2.3 Market linkages</p>					<p>INPUTS</p> <p>Component 1 – UA 13.48 million Component 2 – UA 2.34 million Component 3 – UA 2.14 million Component 4 - UA 1.4 million</p> <p>■ TOTAL UA 19.36</p>
KEY ACTIVITIES	<p>Component 3 : Agro-Cooperatives Development for Employability <u>3.1 Formation and support to youth farmer cooperatives</u> <u>3.2 On farm training and extension services</u> <u>3.3 Provision of matching grants for value addition equipment</u> <u>3.4 Market access and strengthening business network</u> <u>3.5 Training of artisans for maintenance of irrigation schemes</u> <u>3.6 crop production</u></p> <p>Component 4 4.1 Public Sector and smallholder farmers supported 4.2 M & E 4.3 Project management</p>					

Project Time Frame

Year	2016				2017				2018				2019				2020				2021			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Initial Activities																								
Appraisal																								
Loan and Grant negotiations and approval																								
Signature of loan agreement and fulfilment of first disbursement conditions																								
Publication of the General Procurement Notice																								
Recruitment of project staff																								
Project Launching																								
Procurement of property goods works and services for the PIUs / PCUs																								
Signature of agreements with partner entities																								
Irrigation Infrastructure Development and Watershed Management																								
Award of contracts for the project supervision																								
Studies RFPs and bidding documents (BDs) preparation																								
Award of contracts for the construction of infrastructure																								
Award of contracts for the procurement of goods																								
Sensitisation and training of beneficiaries and communities on a number of issues, including on conflict management approaches																								
Construction infrastructure/management committee																								
Agro-Cooperatives Development for Employability Additions																								
RFPs and bidding documents (BDs) preparation																								
Award of contracts for the construction of infrastructure																								
Award of contracts for the procurement of goods																								
Sensitisation and training of beneficiaries and communities																								
Construction of infrastructure /management committee																								
Value Addition and Youth Entrepreneurship																								
Selection of Consultants/Identification of Intern Service Centres																								
Selection of Candidates for Training																								
Commencement of training																								
Award of contracts for the procurement of goods																								
Sensitisation and training of beneficiaries and communities																								
Departure of trainees																								
Monitoring of Youth Progress																								
Project Management And Capacity Building																								
Establishment of accounting system and preparation of procedures manual																								
Establishment of the baseline situation and the M&E system																								
Management, monitoring and evaluation and communication activities																								
Capacity building interventions including on institutions and resilience-building systems																								
Annual financial auditing																								
Mid-term review																								
Completion report																								

REPORT AND RECOMMENDATION OF THE MANAGEMENT OF THE AfDB GROUP TO THE BOARD OF DIRECTORS ON A PROPOSED LOAN TO THE REPUBLIC OF MALAWI FOR AGRICULTURAL INFRASTRUCTURE AND YOUTH IN AGRIBUSINESS PROJECT (AIYAP)

Management submits the following Report and Recommendation on a proposed ADF loan of UA16 million to finance the Malawi Agricultural Infrastructure and Youth in Agribusiness Project.

I STRATEGIC THRUST & RATIONALE

1.1 Project linkages with country strategy and objectives

1.1.1 The Malawi Growth and Development Strategy II, 2011-2016 has identified agriculture, irrigation and water development as some of the key priorities and drivers of economic growth and poverty alleviation. The Government formulated Agriculture Sector-Wide Approach (ASWAp 2011-15) as the priority investment plan for the agriculture sector which focusses on (i) food security and risk management (ii) commercial agriculture, agro-processing and market development and (iii) sustainable land and water management and support services. The Government is implementing a Farm Inputs Subsidy Program (FISP) to address the food security problem and developed a National Export Strategy to promote crop diversification, value addition and export of agro-based commodities. The National Irrigation Policy which is currently at the draft level is aimed at enhancing farmers' ownership through farmer managed irrigation and National Agriculture Policy, whose main objective is to commercialize the agriculture sector. In ASWAp, the Government also introduced a Green Belt Initiative (GBI) in order to promote irrigation and minimize reliance on rain-fed farming and achieve increased agricultural productivity for domestic and international markets. The Government is currently finalising a five year National Resilience Plan to break the cycle of food insecurity with irrigation as a key component. Regarding youth initiatives, the Government adopted the National Youth Policy in 2013 which recognises that the youth represent a vast human resource potential for promoting economic growth and if neglected it would be a lost opportunity. AIYAP will address the twin problems of food insecurity and high rate of youth unemployment using irrigation infrastructure as an enabler, which will substantially contribute to the achievement of the objectives of these policies and strategies.

1.1.2 The project is aligned with the Bank's 2013-17 Country Strategy Papers (CSP) Pillars focusing on (i) addressing infrastructure bottlenecks to competitiveness and growth and (ii) supporting actions to expand private sector investments. While the former covers irrigation infrastructure development and agricultural market infrastructures the latter Pillar covers private sector investment and entrepreneurship in agro-processing, crop diversification and value chain development which are articulated in AIYAP. The country socio-economic indicators are presented in Appendix 2 and it is envisaged that AIYAP will contribute to improving these indicators and ultimately achievement of the Sustainable Development Goals (SDGs).

1.1.3 Currently, only 26 percent (104,000 hectares) of the potential irrigable area (408,000 hectares) is under irrigation. In order to exploit this potential, Government has developed the National Irrigation Master Plan and Investment Framework (NIMPIF). The NIMPIF which was published in February 2015 confirmed that the plan will be implemented in three phases: Phase I (2015-2020), phase II (2021-2025) and Phase III (2026-2035) comprising of approximately 20,000 hectares, 28,500 hectares and 67,500 hectares of new irrigation schemes in Phases I, II and III respectively. The project is part of the Bank's efforts to support the government of Malawi in the implementation of the Irrigation Master Plan given that the targeted sites are among the priority sites identified in the Master Plan which objectives are to: (1) accelerate economic growth, (2) reduce rural poverty, (3) improve food security, and (4) increase exports.

1.2 Rationale for Bank's involvement

1.2.1 The Bank's Ten Year Strategy (TYS) 2013-2022, identify agriculture related infrastructure development as a key enabler for increased production, productivity and effective utilization of land resources. It also identifies agriculture and food security as an area of special emphasis. The 2016 Bank's Agriculture strategy: Feed Africa: Strategy For Agricultural Transformation in Africa 2016-2025 is targeted at executing the Comprehensive African Agriculture Development Programme (CAADP) goals of contributing to elimination of extreme hunger, malnutrition, poverty, and increased prosperity, in partnership with alliances including farmers, agribusiness, and civil society, and exploiting regional comparative advantages and opportunities for trade and collaboration. The Bank's Gender Strategy 2014-2018 calls for economic empowerment, knowledge and capacity building for women. Furthermore, the Bank's Fragility strategy "Addressing Fragility and Building Resilience in Africa, 2014 – 2019" which aims at effectively assisting countries build resilience to move forward towards more stable political and economic development with Youth employment as a special focus, as jobs are alternatives to rents or participation in illicit activities associated with fragile situations and thus help prevent the outbreak of violence related to critical unemployment.

1.2.2 This project addresses all of the above key Bank strategies and policies as part of broader development efforts to achieve sustainable growth and poverty reduction thus, (1) streamlining of the crops along value chains (economic crops) and crops to address food security as well as linking the agri-prenuers to the value chains, ensuring that sustainable incomes will be achieved for the beneficiaries in particular and the country at large, (2) focusing on youth with special emphasis on targeting women (at least 50% of beneficiaries) social and economic empowerment, while protecting the environment through various catchment activities, and (3) addressing the objectives of inclusive growth and transition to green growth by addressing infrastructure development, private sector development, and skills and technology adoption through promotion of irrigation for agriculture intensification and diversification.

1.2.3 The project also resonates with three of the five pillars of Bank's 'High 5' by addressing Feed Africa, Industrialize Africa, and Improved quality of life for the people of Africa. At country level, the project is aimed at contributing to increase in agricultural exports, import substitution, generation of the much needed foreign exchange and job creation especially for the youth.

1.3 Donor coordination

1.3.1 Malawi's recent progress towards the aid effectiveness agenda under Busan is mixed. Whilst donor alignment with national policies remains strong, the use of the national country system and aid on the budget has significantly reduced following suspension of budget support in 2013.¹ Development Partners (DPs) are instead channelling the resources earmarked for budget support or basket funding through other aid modalities and off budget.² The GOM is working with DPs to improve aid effectiveness guided by the new Development Cooperation Strategy launched late 2014. Successful outcome of on-going PFM reforms will be indispensable in encouraging DPs to increase the use of country systems. The current platform is on the Donor Committee on Agriculture and Food Security (DCAFS) as the key form for donor coordination, monitoring of sectoral plans and strategies and harmonizing interventions. The Bank is currently chairing the Irrigation Technical Sub-Group. With the provision of Euro 2.00 million EU funding for catchment management in the project, the Bank is leveraging on collaboration with other Development Partners in Malawi.

¹ According to the 2014 Global Partnership Monitoring Survey, Malawi's score on the aid on budget aid indicator declined from 62 in 2010 to 49 whilst that of use of national country system dropped from 65 to 50.

² 51 % of planned externally financed development expenditure for FY 2014/15 is off budget.

Table: 1.1 Donor Support to Agriculture 2015/2016

	Sector or subsector*	Size		
		GDP	Exports	Labor Force
	Agriculture	30	90	80
	Players - Public Annual Expenditure (average)**			
	Government	Donors	ADB WB	6% 25%
UA m	[UA 1000.3 m]	[UA 31.1 m]	DFID	12%
%	71	29	EU	17%
			USAID	12%
			Irish Aid	3%
			WFP	1%
	GIZ			2%
	WFP			1%
	IFAD			6%
	JICA			2%
	FICA			3%
	Level of Donor Coordination			
	Existence of Thematic Working Groups			[Y]
	Existence of SWAPs or Integrated Sector Approaches			[Y]
	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				

II PROJECT DESCRIPTION

Project Objectives: The specific objective of the project is to alleviate poverty in the project area in particular and the country in general by contributing to economic growth and food security through: (1) Deploying irrigation infrastructure to scale up improved crop production and productivity leading to improve net farm incomes of the project beneficiaries, (2) expansion of opportunities in agriculture and agribusiness among the rural youth in Malawi as a means to advance and improve rural livelihoods and economic development, (3) enhancement of import substitution through improved value additions and processing, (4) introduction of revolving loan for agriculture purposes will grow and build the cluster youth entrepreneurs in agribusiness and value chains, and (5) Using cooperative societies as a vehicle to transit the smallholders farmers to commercial farmers.

2.1 Project Components: AIYAP has four main components mainly; (1) Irrigation Infrastructure (Dwambazi 945 hectares and Linga 1000 hectares irrigation schemes) and Watershed Management, (2) Youth entrepreneurship and Value Addition, (3) Agro-Cooperatives Development and Enhancement, and (4) Project Management and Institutions Strengthening. Table 2.1 below provides a summary of the project components and related estimated cost, including contingencies.

Table 2.1: summary of the project components and related estimated cost

No	Component Name	Estimated Cost (UA) million	Component/Sub-component and Activity Description
<u>1</u>	Irrigation Infrastructure & Watershed Management	<u>13.48</u>	<p>Irrigation Development: (i) development of two (2) new gravity fed irrigation schemes: the works under this component will include construction of head works, main canal, secondary and tertiary canals, drainage system, and on farm roads as described in C.1.2 of the Technical Annex; Dwambazi (945 ha) and Linga (1000 ha), covering a total area of 1945ha;(ii) formation of two water Users' Associations (WUAs) with 50% women and youth representation; (iii) provision of capacity development for farmers (men and women), extension agents (tapping on female extension to reach women famers), and relevant government officials.</p> <p>•Catchment Management: (Detail activities in Annex C1) (i) improved catchment conservation and development programme; (ii) alternative livelihood support; and (iii) capacity building and indigenous knowledge management systems. The hot spot areas in the catchment will be demarcated in consultation with the communities during implementation.</p>
<u>2</u>	Youth entrepreneurship and Value Addition and	<u>2.34</u>	<p>•Youth Entrepreneurship, Storage Agro-processing and Value Addition</p> <p>•Youth Entrepreneurship (50% of female youth)</p> <p>•Market Linkages – trade facilitation, linking farmers with agro-processors, building bulk commodity network, eliminating middlemen, and exerting group effects on processors for better prices.</p>
<u>3</u>	Agro-Cooperatives Development for Employability	<u>2.14</u>	<p>•Formation and support to farmer cooperatives and to strengthening the participation of female youth in these cooperatives)</p> <p>•On farm training and extension services</p> <p>•Agriculture Production,</p> <p>•Market access and strengthening business network linkages between the cooperatives and youth processors, and exchange programme with other similar organisations in the region and the rest of Africa</p>
<u>4</u>	Project Management and Institutional Strengthening	<u>1.4</u>	<p>•Establish project implementation unit</p> <p>•Monitoring and Evaluation</p> <p>•Capacity building</p>

2.2 Technical Solution retained and alternatives explore

Table 2.2: project alternatives considered and reasons for rejection or acceptance

Alternative	Brief description	Reasons for rejection/Acceptance
Alternative 1	Invest in gravity fed irrigation system (technical solution retained)	Gravity fed irrigation system have proved to be more sustainable in terms of operation and maintenance with locally available material, requiring minimal training which translates to sustainability and profitability of the enterprise.
Alternative 2	Invest in rain water harvesting infrastructure such as small water holding structures scattered all over the selected districts for agriculture, livestock and domestic use	Rain water harvesting structures cannot sustain the impacts of climate change and their socio-economic impact will be spread out thinly. In addition, it cannot provide food and cash crops two to three times a year.
Alternative 3	Invest in pumped irrigation development by lifting water mechanically to higher ground for crop production	Pumped irrigation schemes were dropped on account of the complex nature of their operation and maintenance, costs are high and the capacity to maintain at small farm level does not exist. Further it contributes to carbon emission.
Alternative 4	Introduce spate irrigation system	Not sustainable due to variability of rainfall; non-efficiency and drudgery.

2.3 Project type

AIYAP is designed in the form of a stand-alone Investment Project with the main aim of supporting irrigation infrastructure development (civil works) as an enabler of scaling up of high value crop production, value chain development, youth skill development in Agribusiness and capacity building activities largely funded by ADF 13 Loan and EU Grant resources.

2.4 Project Cost and Financing Arrangements

2.4.1 The total project cost, including physical and price contingencies, is UA 19.36 million which will be financed by: (i) ADF loan (UA 16.00 million covering cost of infrastructure, purchase of vehicles, youth training and provision of seed capital, etc.), EU Grant (UA 1.60 million to finance catchment management) and (iii) the GoM and Beneficiaries (UA 1.76 million), through provision of office space and salaries for the counterpart staff on the project on the part of Government and provision of labour for maintenance of the irrigation infrastructures on the part of beneficiaries. The resources from EU will be made available to the project through parallel financing, since the Department of Irrigation will be responsible for the management of the resources using the EU procedures.

2.4.2 The ADF Loan will be used to finance both local costs and foreign costs. The project will finance local costs such as training, personnel and operating costs while most of the activities under infrastructure development will attract foreign costs as detailed in the summary tables below. The GoM does not have the capacity to finance most of the project activities and has therefore committed to contribute to the project in kind through staff and office space. The details are indicated in Tables 2.3, 2.4, 2.5 and 2.6 below.

Table 2.3: Project Cost Estimates

Component Name	MWK '000			UA '000		
	Local	Foreign	Total	Local	Foreign	Total
Infrastructure development	3,535,269	8,019,617	11,554,886	3,643	8,264	11,907
Market Linkages, Agro Processing and Value Addition	1,458,553	655,039	2,113,592	1,503	675	2,178
Agro-Cooperatives Development for Employability	1,737,066	225,139	1,961,235	1,790	232	2,021
Institutional Strengthening and Capacity Building	1,190,715	98,013	1,289,699	1,227	101	1,329
Sub Total	7,921,604	8,997,808	16,919,412	8,163	9,272	17,435
Physical Contingency	196,026	844,272	1,040,299	202	870	1,072
Price Contingency	390,112	437,663	827,775	402	451	853
Sub Total	586,139	1,281,935	1,868,074	604	1,321	1,925
Grand Total	8,507,742	10,279,744	18,787,486	8,767	10,593	19,360

Table 2.4: Sources of Finance

Source of Financing	Total Amount (UA '000) and Percentage Contribution (%)					
	Foreign		Local		Total	
	UA	%	UA	%	UA	%
ADF	11,200	70	4800	30	16,000	83
EU	319.2	20	1277	80	1,597	8
GoM	0	0	1763	100	1,763	9
Total	11,519		7840		19,360	100

Table 2.5: Project Cost by Categories of Expenditure

ADF and EU Categories of Expenditures (UA '000)						
Categories of expenditures	ADF			EU		
	Foreign	Local	Total	Foreign	Local	Total
Works	9,168	2,292	11,460	22.07	5.52	27.59
Goods	688	0	688	98.72	26.23	124.95
Services	762	1,778	2,540	0	1,369	1,369
Operation	0	1,312	1,312	0	78	78
Total	10,617	5,382	16,000	120.79	1,479.33	1,600.00

Table 2.6: Expenditure Schedule By Component and Year

Component	Totals in UA '000						
	PY1	PY2	PY3	PY4	PY5	Total	%
Irrigation and watershed management	3001	5409	4719	174	174	13476	70
Crop production, Value addition & Youth Entrepreneurship	251	1018	356	356	356	2336	12
Youth Skills Development in Agriculture	1287	221	217	211	208	2144	11
Project management & Institutional strengthening	366	259	261	259	261	1405	7
Total	4905	6907	5552	999	999	19360	

2.5. Project's target area and population:

2.5.1 Demographic Aspects: According to 2016 data from the Department of Statistics, Malawi has an estimated population of nearly 17 million people with women constituting about 51% of the population³. The population is characterised as follows: (i) 0 – 10 years (33%); (ii) 10 – 20 years (22%); (iii) 20 – 40 years (29%); (iv) 40 – 60 years (10%) and (v) those above 60 years comprise (6%). The districts of Nkhosha and Nkhosha Bay have populations of 229,460 and 164,761 respectively with combine total land mass of 8330km² representing 9% of country total land mass of 94,080km² (excluding Lake Malawi which covers an area of 24,404km²). The targeted beneficiaries are 10,000 households estimated at 6 person per household. In the two districts only 1 in 30 women and 1 in 10 men complete secondary education. However, 1 out of 7 women and 1 out of 9 men are unemployed.

2.5.2 Location: The project is located mostly in the Green Belt Zone covering a total of 2 Districts of Nkhosha-kota (Dwambazi) and Nkhosha-Bay (Linga) Districts in the Central Region. These Districts were selected because they were ranked among the Phase 1 projects in the Malawi National Irrigation Master Plan.

2.5.3 Climate: The climate in Malawi ranges from semi-arid in the Lower Shire Valley, semi-arid to sub-humid on the plateaux and sub-humid in the highland areas in the northern parts of the country. Average rainfall ranges from 763 mm to 1,143 mm per annum (p.a.) with only a few areas receiving over 1500 mm of rain annually. Such areas include Mulanje, Nkhosha Bay and the northern end of Lake Malawi. Rainfall (almost 90%) occurs between the months of December and March, with no rain at all between May to October over most of the country. Mean annual temperatures vary with altitude, ranging from 25° C in the Lower Shire Valley to 13° C in the highland areas.

2.5.4 The project area like other parts of Malawi is largely a semi-arid country hence greatly threatened by droughts and other negative impacts of climate change. The semi-arid nature of the country makes it highly fragile and susceptible to environmental degradation hence sustainable management of natural resources is not an option but a priority. The area is also prone to flooding which has been accelerated by extensive deforestation and tree cutting in most parts of the country which was highly experienced in the 1970s and the 1980s during which time annual deforestation rate was estimated at 3.5% per annum. Deforestation was and is still caused by (i) expansion for agriculture; (ii) demand for fuelwood for both domestic and other uses including industrial production. Soil erosion constitutes one of the major types of land degradation in Nkhosha-kota and Nkhosha-Bay area of Malawi.

³ Malawi is largely rural. Despite rapid urbanization, nearly 85 percent of the total population of Malawi lives in rural areas.

2.5.5 Water Resources: Water for the irrigation schemes is supplied from Dwambazi and Mazembe rivers. Dwambazi is a perennial river with a minimum monthly flow of 3,305 l/s indicating that the water available is more than sufficient for the development of Dwambazi irrigation scheme. Mazembe River with a minimum monthly flow of 224 l/s demonstrates the need for a water harvesting structure to harness the water required to irrigate the Linga scheme.

2.6 *Participatory process for project identification, design and implementation*

2.6.1 The ESIA:

2.6.1.1 During the project preparation, extensive public consultations were carried out to determine the environmental and social impacts of the project. The consultations were also aimed at identifying the key environmental challenges experienced in the project locations as well as project districts. Meetings were held with various departmental heads at the Ministry of Agricultural, Irrigation and Water Development, Ministry of Trade, Ministry of Gender and Ministry of Labour and Youth Development at the ministries' Headquarters in Lilongwe. Consultative meetings were also held with various heads of department at Nkhosang and Nkhosang Bay District Headquarters including with the District Commissioner of Nkhosang Bay District. Further meetings were held with Dwangwa Cane Growers Trust, Dwangwa Cane Growers Company Ltd and Senior Officers of Illovo Sugar Company Ltd. Other consultative meetings were held with various community leaders led by Senior Chiefs and their deputies together with community members, members and executives of Farmers Associations in Linga (Nkhosang Bay District) and in Dwambazi (in Nkhosang District).

2.6.1.2 The reasons for consultative meetings were: (i) to generate a good understanding of the project by all stakeholders within the project area; (ii) to enhance ownership of the project by local leadership, the community and local farmers; (iii) to understand people's and agency expectations about the project; (iv) to understand and characterise potential environmental, social and economic impacts of the project; (v) to acquire, but also advance local benefits that may accrue from the project; and (vi) to enable stakeholders involved in the project to provide views, hence participating in or refining project designs. In addition, site-specific investigations were also conducted to gain insight to the likely environmental, social, and economic impacts of the project.

2.6.2 Community Participatory Processes: The community participatory processes were organised by the officers from the Ministry of Agriculture, Irrigation and Water Development as well as the project team during the preparation and appraisal mission. Two town hall meetings at each project location were held where a range of issues including among others, project details, land issues, community development, choice of cropping, farmers associations –development, formations and operations, etc. were discussed and agreed upon. The team, also visited the projects sites and the existing farms on the land with a view for getting the understanding of the farmers, listen to their concerns – especially land distributions and beneficiaries of youth entrepreneurship, how to address them and incorporate them into the project design. Over half of the target population is youth and women who are already active in the agriculture sector. Most of the youth also own land that has been inherited or allocated by the traditional leaders in line with the customary land acquisition. Consultations also involved all relevant sector departments at the district and headquarter levels. The key players included the local administration structures spearheaded by the local chiefs headed by two Traditional Authorities, one of which is a woman and their assistants and included a significant proportion of the community members of which youth and women constituted more than 50%. The Mission met and held discussions with major private sector players among which are; Crown Ministries, Illovo Sugar Company, Farmers Engineering Services, Public Private Partnership Commission in Blantyre, the Malawi Chamber of Commerce, Industry and Cooperative and Telekom Networks Malawi Limited (TNM) – a mobile company quoted on Malawi Stock Exchange. The project team held sessions with Civil Society Organisations, and Non-governmental Organisations as well as youth entrepreneurship training institutions in Malawi

2.7 Bank Group experience, lessons reflected in project design

2.7.1 Experiences, challenges and lessons learnt in the implementation from the Bank's past and current agricultural projects in Malawi have been taken into account in the design of the current project. These include the need for proper project orientation, emphasis on farmer group approach, strong M&E and capacity building for staff which AIYAP has incorporated by including project launching, regular training for implementing staff, emphasis on Cooperatives and Water Users Associations and support to M&E. To avoid future land disputes as noted from some of the projects due to inadequate consultations, adequate consultations were held with the beneficiaries and other relevant stakeholders during preparation and the Bank has received a letter of comfort from the Government confirming the support of the locals for the project. In addition, beneficiary farmers registered their names to confirm that their pieces of land will be made available for the project activities. Non availability of full studies and designs have always led to delays in disbursements and project implementation. To address this problems, AIYAP locations were selected based on readiness of the designs, drawings and feasibility studies already prepared under the National Irrigation Master Plan. In addition, the sites were also selected on the least cost based among the sites which are ready for development. The need for a full time Project Coordination Unit was noted from almost all the previous projects, therefore, provision has been made for the recruitment of technical experts to support the Project Coordination Team under ASWAp Secretariat to fully focus on the planned activities.

2.7.2 Through the project team interaction with the DP and government officials it was noted that youth skill development program were bedevilled by; (1) Lack of transparency in the process of trainees selection, (2) In adequate or non-availability of financial support to raise start-up capital, and (3) Inadequate post training technical support, and (4) Uncoordinated monitoring processes. All these are taken into consideration in the design of AIYAP as a result, the selection processes of the trainees, the training as well as provision of seed capital will be carried out by an independent consultants/Financial Institutions. In addition the project has already confirmed with organised private sector – Ilovo, PressCane, etc. which have agreed to take the trainees as interns.

2.7.3 The issues of sustainability of the irrigation facilities after project completion in Malawi have been highlighted in all the reports. Irrigation is capital intensive and demanding in terms of technical capacity. Some of the old irrigation schemes in Malawi have had to be rehabilitated. By introducing value chains and agripreneur it is expected that the farmers will transit to commercial farmers who will be able to pay for the maintenance of infrastructure. The project has built in resilience of the facilities to the effect of climate change by addressing the issues of catchment management which will be specifically addressed with Euros 2million mobilised from EU. Furthermore, to enhance sustainability of other physical infrastructure, the facilities and resources to be provided for the youth after graduations will be on revolving loan basis. To address the issue of weak technical capacity to maintain the irrigation infrastructure, resources have been allocated to the training of technicians and artisans for maintenance of the infrastructure. More importantly, the project is designed to enhance ownership of the infrastructures by the farmers through Farmers Associations, improving capacities for O&M, and importantly, using climate-smart designs (flood regulation, sediment control etc.) which objective is to prolong the lifespan of the infrastructures.

2.7.4 Lessons from the Revised 2015 Country Portfolio Improvement Plan (CPIP) also highlighted the: (i) Weak Capacity in Financial Management, (ii) Weak Capacity of Project Implementation Units which are precipitated by the staffing configuration and modalities of assigning staff to project coordinating units, (iii) Project Start-Up Delays, and (iv) Weak Procurement Capacity. In order to address these challenges, the project has embedded (i) the need to ensure adequate stakeholders consultations during project design to ensure ownership and compliance during implementations phase; (ii) Project designs and detailed feasibility studies are already in place; (iii) training on the Bank's rules and procedures for consultants and contractors engaged in Bank's funded projects will be carried out as part of the project launch and on regular basis thereafter (iv) baseline and annual targets data are established within the first year of a project where this is not available (v) reporting would be based on results framework including gender disaggregated data, (vi) supervision missions' checklist to include

environmental and social management activities and projects' quarterly reports and (vii) frontloading of procurement activities by adopting advance contracting which have been agreed with government.. While addressing catchment vulnerability through the catchment management program is valid, this doesn't necessarily confront the challenge of weak technical capacities nor sustainability challenge of the irrigation infrastructure alluded to in this

2.8. Key performance indicators

2.8.1 The Project Results-Based Logical Framework contains key impact and outcome indicators for the monitoring of the performance of the Project. The main outcomes are expected are: (i) Increased crop production and productivity; (ii) Increase in number of youth engaging in farming and Agribusiness and (iii).Increase in Household Income. Progress towards achieving these outcomes will be monitored through the sector monitoring and evaluation system.

2.8.2 The Project Implementation Unit will prepare quarterly and annual project progress reports presenting the progress on output indicators disaggregated by gender where appropriate. Outcome indicators will be monitored through PIU's management system and national statistics. Indicators will be updated in the Implementation Progress Report (IPR) and necessary adjustments will be made as appropriate. A medium term report (MTR) and Project Completion Report (PCR) will be prepared. All of these reports are circulated widely within the Government, the Bank and to other development partners.

III PROJECT FEASIBILITY

3.1 Economic and financial performance.

3.1.1. Financial Analysis: At full operation, each farmer household will be making an income of MK 1,575,119.74 (US\$2300) per year from the current average income of MK 791,349.11 (US\$1150). The analysis at the project level has been carried out by comparing with and without project costs, on farm crop establishment and operational cost with the benefits. The analysis also covered the benefits and costs of processing some proportions of selected crops such as maize, rice, cassava and selected horticultural crops such as tomatoes, onions and bananas. The discounted cash flow (DCF) analysis carried out on the net cash-flow gave a Financial Internal Rate of Return (FIRR) of 23%, and a Financial Net Present Value (NPV) of USD 3.8 million at an opportunity costs of 18%. The opportunity cost of 18% takes into account the prevailing high interest rates on commercial loans in the country ranging between 42% and 47% with inflation rate of 23% and the bank interest rates on concessional loans. The high financial rates of returns are attributed to the benefits accruing to the project from the value chain development of three major crops namely rice, maize and sugarcane and other horticultural crops such as tomatoes, onion, bananas and chillies. In addition, there are other benefits such as employment generation along the value chains, spin off effects of the investments to boost local economy and other environmental benefits further justifies 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 26% and the economic Net Present Value is estimated at USD 7.2 million at an opportunity cost of 12%. The economic values for the goods and services were arrived at using a standard conversion factor of 1.1 for traded goods and services while the non-traded items were estimated using the market prices which were good estimates of the economic values under the liberalized market system in the country. The results show high economic internal rates of return due to the focus of the project on modernisation and commercialisation of farming in the project areas for the selected crops which include horticulture crops. The project will also attract the participation of more small medium scale enterprises mostly owned by the youth in the project. The project intervention will also enhance productivity through capacity building of the key stakeholders in the project. Sensitivity analysis on the effect of increasing investments costs by 10% and reducing crop prices by the same margin resulted into decrease of EIRR to 25 and 24 % respectively which means EIRR is more sensitive to crop produce price variation. See table 3.2 for details.

Table 3.1: Key Economic and Financial Figures

FIRR (base case) 23 %, NPV (base case)	USD 3.8 million
EIRR (base case) : 26 %, NPV (base case)	USD 7.2 million

Table 3.2: Results of the Sensitivity Analysis on the EIRR

Scenario	EIRR	NPV (USD million, 12%)
10% increase in crop prices	29	9.7
10% decrease in crop prices	24	4.7
10% increase in investment costs	25	5.9
10% decrease in investment costs	29	8.4

3.2 Environmental and Social impacts

3.2.1 Environment:

3.2.1.1 In accordance with the Bank's Integrated Safeguards Systems (ISS), the project has been validated as category 2 by ORQR. This implies that the anticipated negative impacts are minimal and can be readily managed in line with measures elaborated in the Environmental and Social Management Plan. The project will have both positive and negative environmental and social impacts. Positive impacts will include among others: (i) improved environmental and ecological conditions; (ii) increased agricultural activities and enhanced agricultural production and outputs; (iii) improved food security and nutrition; (iv) enhanced value of agricultural produce through value addition; (v) improved social and economic well-being of the beneficiaries through improved economic activities; (vi) enhanced agricultural production capacities and skills; (vii) enhanced entrepreneurial and agro-processing skills; (viii) improved better quality water flow downstream; (ix) increased employment opportunities; (x) improved infrastructure in designated project areas; (x) capacity building including institutional strengthening, environment and natural resources management. Negative impacts will include: (i) vegetation, habitat and biodiversity loss during the development and construction phase of the project; (ii) generation of solid wastes as a result of excavations during construction works; (iii) compaction of soils and destabilization of the geological balance; (iv) chances of threats of increased incidences of water-borne diseases and accidental deaths at the water conservation reservoirs; (v) dust, air quality and noise pollution; (vi) threats of occupational health and safety; (vii) soil, rivers and wetlands pollution from chemical fertilizers and other agricultural chemicals during the operational phase of the project; (viii) threats of transmissions of HIV/AIDs and other communicable diseases. The project ESMP for the two sites have been developed and posted on the Bank's website on 9 August 2016.

3.2.1.2 Though the environmental and social assessments of the project based on the African Development Bank's Integrated Safeguards System (ISS) and the Environmental and Social Assessment Procedures, validated the project as Category 2, however according to Schedule A of the Malawi's Environmental Impacts Assessment Guidelines of 1997, development of agricultural land of more than 10 hectares requires implementation of a full EIA, thus qualifying such projects under Category 1 Projects. However, this is annulled by Schedule B 2.1 and Schedule D (D.1, D2, D3, D4, D5, D6, D7, D8.1, D8.2, D8.5, D8.6, D8.8 and D10, of the Guidelines because the proposed project has limited and reversible negative environmental and social impacts.

3.2.2. Climate Change: The Project is classified Category 2 by the Bank's Climate Change Screening System. The design review includes climate change risks and proposal of adaptation measures. Risk management and adaptation options are integrated through promotion of gravity irrigation water flows. Catchment management programme has been incorporated as part of the climate change resilience programme. The proposed project interventions are imbedded with adaptation measures in the irrigation

and land and water management sub-sectors to secure and improve agricultural productivity against climate change impacts through enhancement of water supply and basin-wide management. Irrigation schemes will help address the challenges due to low rainfall while irrigation systems have been designed to control the flooding menace in the target areas. These measures are consistent with Malawi's National Adaptation Programme of Action (NAPAs) and these include: (i) improved early warning systems (ii) use of improved crop varieties and livestock breeds, (iii) improved crop and livestock management practices, and diversification of agricultural activities within single farm units, e.g. introduction of agro-forestry systems

3.2.3. Gender Analysis: Malawi has a high gender disparity between men and women. The 2014 female Human Development Index value for Malawi is 0.423 in contrast with 0.467 for males, resulting in a GDI value of 0.907⁴. Only 32% of individual holders of agricultural land in Malawi are women despite their significant contribution in the agriculture sector.⁵ Rural women in Malawi play an important role as subsistence farmers,⁶ and there is increasingly involvement of young female (91% of young males works and 96% of young female workers are employed in the agriculture activities).⁷ Yet their productive capacity is hindered by gender inequalities. The gender inequalities in the agriculture sector can be attributed to:

- (i) Limited access to land ownership and land tenure. This has led to gender implications mainly hinge around women's control over the land and agriculture inputs including improved technology, extension services, credit and finances. This has affected women's decisions over the agriculture sectors. Sensitisation meetings have been done to promote women participation and ensuring that farmer participation will be based on head of household rather than on gender. However, adequate safeguard will be put in place to ensure that at least 30% of the women are reached.
- (ii) Low education rate and skills among women's famers. Illiteracy is high among rural women and gender inequalities persist in secondary education, 1 in 30 women compare to 1 in 10 men completed secondary school (reference to point 2.5 in the report). Furthermore, for example adult literacy rate in Nkhata Bay is 91% to 76.8 %, male to female respectively. The situation is a bit different for youth but still there is differential of 18 % (age of 25 – 34). Addressing female education and knowledge in the project would be very crucial for their effective participation. Sensitization, extension support and business support services will be provided by the Government district officers including the youth and gender officers in order to promote youth and women participation and development. In addition, the project include program in capacity development in areas of functional literacy, book keeping, business formation etc.
- (iii) Inequalities in rural employment; rural women's participation in paid employment is hampered by a significant domestic work burden. Moreover, rural female workers face a greater burden combining domestic and probative workloads compares to their male counterparts, which further restrict their agriculture production capacity. Women generally have limited control over money generated from sales of agriculture produce. Moreover, men, more often than not, have the overall say on the selection of crop types to be produced which eventually impacts household food security. This creates constraints regarding agricultural investments, since in real terms, women tenure insecurity is one decisive factor constraining agricultural production.
- (iv) Gender mobility patterns; women are more likely to move shorter distances and within districts. This resulted in limited access to markets. The project will promote women participation in agri-business by providing business development services and also through collaboration with NGOs active in the area.

⁴Female – male respective: Life expectancy at birth (63.7 - 61.7). Expected years of schooling (10.8 - 10.7), Mean years of schooling (3.4 - 5.20) GNI per capita (0.679 - 0.815) HDI values (0.423 0.467). GDI value Malawi, 0.907. Major gap is realized in yeas if schooling, gross national income, and combine with low gender inequality index, which includes participation of women in decision-making. In 2014, the parentage of women in decision making position stands at i.e. women held 22.3% of seats in the national parliament.

⁵ Gender Inequalities in Rural Employment in Malawi: An Overview, FAO, 2011.

⁶ Ibid.

⁷ Ibid.

3.2.4 Finally, the project will take into account these factors and support women farmers in the decision making process. It is apparent that gender inequality is affecting the agricultural productivity in the targeted areas. Women farmers on average outnumber men farmers. However, women are not well represented in decision making positions in irrigation schemes in Malawi where women occupy as little as 25% of the decision making positions and are often deputies of men. For that reason the project will make a deliberate effort to ensure adequate participation of women (at least 40% of beneficiaries) in project implementation and will encourage committees and farmer-based groups to include a larger quota for women in management, training, community representation and decision-making, and other income generating activities. Women, will thus have the opportunity to participate in farm related income generating activities and contribute meaningfully to the socio-economic development of their communities. The gender perspectives have been integrated into project formulation in line with the Malawian Gender Equality Act, 2012 and the National Youth Policy, 2013, and also takes due cognizance of the Bank's Gender Policy.

3.2.5 Social The outputs of this project as contained in the logframe will translate into multiple positive economic and social outcomes whose indicators include: (i) increased agricultural activities and agricultural outputs whose net impacts will include improved living standards, food security and improved nutrition; (ii) increased employment opportunities both directly and indirectly by people employed during the development works as well as those who will be employed in agro-processing, marketing, sale of farm inputs, etc.; (iii) improved agricultural production skills through training; (iv) enhanced environmental management skills; (v) improved rural as well as on-farm infrastructure to ease transportation; (vi) minimized post-harvest losses through the development of farm and off-farm storage facilities as well as processing facilities that will help improve socio-economic well-being of the beneficiaries.

3.2.6 The youth profile in Malawi indicates that out of a population of 17 million people⁸, more than 40% are between 10 to 35 years old. Literacy rates within this age bracket is estimated at 81.8% with slightly more males (86.6%) than females (77%) being literate. Although youth constitute a significant proportion of the population, they lack basic opportunities that would enable them develop to their full potential. This has been compounded by the presence of a range of adverse conditions that impinge on the youth; the most perverse, being poverty. Discussions with youth groups indicated that lack of appropriate skills and training, limited access to land, lack of value addition equipment and lack of financial support are some of the major challenges facing the youth in Malawi. Therefore this project has built in activities that will help to address challenges being faced by the youth. The project will promote formation of youth farmer cooperatives to engage in agriculture as a business. The project will also provide training in entrepreneurship, promote entrepreneurship culture, enhance agro-processing and value addition and also improve access to finance through seed funds and credit schemes.

3.2.7. Involuntary resettlement: There is no involuntary resettlement foreseen under this project. The project identified sites do not require land acquisition. The areas are already designated for agricultural production. Settlements are outside the scheme areas except in Linga where there are a few homes found within the scheme area. These do not pose major problems for the scheme development since the designs have already isolated those few homes to be affected which will benefit from the project through livelihood activities embedded in the Catchment Management.

IV IMPLEMENTATION

4.1 Implementation arrangements

4.1.1 The project will be under ASWAp within MoAIWD, and will be implemented through the existing GoM structures. The MoAIWD is currently implementing six Bank's projects satisfactorily which did not have any problems in meeting the pre-condition for first disbursement. To fast track and kick start the preliminary key activities of the project, the Government had put in place an Interim Project Implementation Unit which comprised of - a Project Coordinator (a Chief Irrigation Engineer),

⁸ Population and Housing Census, 2008

a Procurement Specialists, a Project Accountant, a Monitoring and Evaluation Expert and a Desk Officer to support the project. However, in order to fast-track the implementation process, the Project Coordinator, Supervising Irrigation Engineer, Cooperative Officer and Procurement Specialist as well as the FM officer will be recruited competitively locally to serve on full time basis. The externally recruited staff will sign performance based contract with the GoM. The project has also allocated resources to recruitment a lawyer to guide the farmers on legal issues.

4.1.2 The Lilongwe University of Agriculture and Natural Resources will implement the ENABLE YOUTH sub-component. A Technical Adviser which will serve for one year will be recruited competitively at the commencement of ENABLE YOUTH to support the university after which the university will take over full implementation of the component. The project will partner with a financial institution licensed by Reserve Bank of Malawi on risk sharing of the ENABLE YOUTH sub-component of the project. The financial institution will be competitively recruited using Quality Based Method of Procurement.

The Ministry of Agriculture, Irrigation and Water Development will sign a memorandum of understanding with Lilongwe University of Agriculture and Natural Resources (LUANAR) for selection, training and evaluation of business proposals and recommendation of seed funds for the Agripreneurs. The Bank will only release resources for the funding of Youth Agribusiness on the recommendation of the LUANAR. A criteria for the selection of the youth will be developed which will include the minimum qualification of the Malawi Schools Certificate of Education and targeting the youth from the project areas. The Agripreneurs will be provided with modern farming production technologies on loan such as tractors and agro-processing equipment for the crops being promoted in the area through a Microfinance Institutions upon completion of the training at LUANAR

4.1.3 The PCT will ensure that project resources are properly accounted for and that all project targets are timely delivered. The PCT will be reporting to the Principal Secretary for the Ministry of Agriculture, Irrigation and Water Development. There will be a Technical Committee comprising of Directors of relevant Departments. The Technical Committee will report to the Project Steering Committee chaired by PS MoAIWD which will approve the work plans and budgets and guide the project on policy matters. At field level the PIU will work closely with the District Commissioners Office especially the District Agriculture Development Officers, Irrigation Officers and Youth Development Officers. Program Managers, Divisional Irrigation Services Officers from Salima and Mzuzu Agricultural Development/ISD will provide technical support to the project.

4.1.4 Steering Committee: The existing ASWAp Executive Management Committee in conjunction with members from the Department of Youth, LUANAR and Financial Institution to be recruited as risk sharing partner will act as the Project Steering Committee and will have the overall decision making responsibility. The Principal Secretary, MoAIWD will chair the Steering Committee.

Procurement Arrangements

4.1.5 Procurement of goods (including non-consultancy services), works and the acquisition of consulting services, financed by the Bank for the project, will be carried out in accordance with the "Procurement Policy and Methodology for Bank Group Funded Operations" (BPM), dated October 2015 and following the provisions stated in the Financing Agreement. Specifically, Procurement would be carried out following: (1) Borrower Procurement System (BPS): Specific Procurement Methods and Procedures (PMPs) under BPS comprising its Laws and Regulations as stipulated under 2003 Public Procurement Act (PPA) and 2004 Public Procurement Regulations (PPR using the national Standard Solicitation Documents (SSDs) or other Solicitation Documents agreed during project negotiations" for various group of transactions to be entailed under components 3 and 4 under the Project, and (2) Bank Procurement Policy and Methodology (BPM): Bank standard PMPs, using the relevant Bank Standard Solicitation Documents SDDs, mainly for components 1 and 2 for contracts that are either: (i) above the thresholds indicated in Annex B5, Para. B.5.3;2, or (ii) in case BPS is not relied upon for a specific transaction or group of transactions; and (iii) in case BPM have been found to be the best fit for purpose

for a specific transaction or group of transactions. In order to gain time and specifically to meet the requirements of PD2 of 2015, the Interim Project Implementation Unit put in place by the Government has commenced the preparation of the procurement documents. In addition, the Government has selected to use Advance Procurement.

4.1.6 Procurement Risks and Capacity Assessment (PRCA): the assessment of procurement risks at the Country, Sector, and Project levels and of procurement capacity at the Executing Agency (EA), were undertaken for the project and the output have informed the decisions on the procurement regimes (BPS and Bank) being used for specific transactions or groups of similar transactions under the project. The global rating of risk assessment was Substantial with possibility of reducing to moderate after the implementation of the mitigating measures. The appropriate risks mitigation measures have been included in the procurement PRCA action plan proposed in Annex B5, Para. 5.3.8.

Table 4.1 Procurement Table

<i>Project Categories</i>	UA '000				
	NCB	OCB	OTHERS	LCB	TOTAL
<i>Works</i>					
• <i>Infrastructure</i>		11050			11050
• <i>Building</i>		410			410
<i>Goods</i>					
• <i>Machinery & Equip</i>		585.03			585.03
• <i>Vehicles</i>	15.38			129.83	15.38
• <i>Office Equipment</i>					
<i>Services</i>					
• <i>Non Consulting</i>	1263				1263
• <i>Consulting</i>			989.35		989.35
• <i>Financial & Procurement</i>					
• <i>LUANAR</i>			124.49		124.49
• <i>TA</i>			364.57		364.57
• <i>TA –Fin.Inst.</i>			335		335
• <i>African Harvest</i>			350		350
			85.00		85.00
<i>Operating Expenses</i>			873.00		873.32
<i>Salaries and others</i>			991.26		991.26
	1278.38	12045.03	4112.26	129.83	17566.26

4.1.7 Financial Management Arrangements:

4.1.7.1 MOAIWD has prior experience in implementing projects financed by various development partners and currently manages a total of three projects funded by the Bank. The Bank-funded projects are mainstreamed within the Ministry but the financial management function is performed by Consultants working together with Government Accountants. The frequent rotation of Government Accountants has hampered the reinforcement of capacity within the Ministry thus necessitating the retention of Consultants to support the PIUs. The existing projects have had a number of financial management challenges related to the poor quality of quarterly reporting, delays in the preparation of annual financial statements, non-compliance with the Bank's audit submission deadlines, late submission of expenditure justification documents and inadequate controls at the district level.

4.1.7.2 In order to mitigate the identified FM risks based on prior experience, the project will recruit a Financial Management Specialist and an Accountant on a contractual basis to work together with the two Accountants designated by the Accountant General. The Financial Management Specialist will have primary responsibility for the FM aspects and report to the Project Manager and to the Director of Finance at MoAIWD. The contracted FM consultants will be subjected to annual performance evaluations to ensure that they support the borrower's compliance with the Bank's financial management requirements.

4.1.7.3 The project's FM will be centrally managed within the Project Implementation Unit (PIU) in MoAIWD. The PIU would coordinate all project FM-related issues. The overall conclusion of the assessment is that MoAIWD's capacity to handle all the FM aspects of the project, satisfies Bank minimum requirements as laid out in the Bank's FM guidelines subject to the recruitment on a contractual basis of a Financial Management Specialist and an Accountant. The overall FM risk for the project is assessed as Moderate (see Annex 1 – Risk Analysis summary).

4.1.8 Financial Reporting and Auditing Arrangement:

In accordance with the Bank's financial reporting and audit requirements, the project will be required to prepare and submit a quarterly progress report to the Bank not later than forty-five (45) days after the end of each calendar quarter. The project will prepare and submit annual financial statements, audited by the National Audit Office or an independent private audit firm, together with the auditor's opinion and management letter to the Bank not later than six (6) months after the end of the financial year. The detailed auditing arrangements are included in the Technical Annex B.4.

4.1.9 Internal Audit:

The Central Internal Audit Unit will be responsible for providing objective assurance and ensuring accountability in the utilization of public funds and assets. Various bank rules and guidelines (including procurement rules, FM guidelines and disbursement guidelines) would also provide additional guidance. The internal controls of the project will be spelt out in the project implementation manual which would include sections on accounting and administrative procedures and provide guidance on the day to day project FM issues. The internal control environment will be underpinned by the clear definition of roles and responsibilities allowing for segregation of duties.

4.1.10 Disbursement Arrangements:

The project would make use of the Bank's various disbursement methods including (i) Direct Payment, (ii) Special Account (SA) and (iii) Reimbursement methods in accordance with Bank rules and procedures as laid out in the Disbursement handbook as applicable. The Bank will issue a Disbursement Letter of which the content will be discussed and agreed with the Government of Malawi (GoM) during negotiations.

The government will open a special account which will be denominated in foreign currency, at a bank acceptable to the Bank for the Project's use. A related local currency account will also be opened for eligible local currency operating costs.

4.2 Monitoring

4.2.1 The established ASWAp results framework will be used for M&E of the project performance. Support will be provided by the MoAIWD and Ministry Labour, Youth and Manpower Development (MLYMD) to undertake their roles in leading the M&E process. The M&E Units will generate gender disaggregated data and also assess socio-economic impacts on the target groups. The Environmental District Officers and Land Resources Conservation Officers will monitor the social and environmental impacts of the project. Project effect and impacts on the target groups will be monitored by constituting cross-section samples of beneficiaries. The component will facilitate stakeholder consultations, farmer organisation, nutrition and HIV/AIDS messages, promotion of women participation, field demonstrations including competitions and short-term consultancies.

4.2.2 Milestones

Timeframe	Milestone	Monitoring process / feedback loop
Year 0	Preparation of procurement packages	GOM, AFDB
	Project Approval, launching, signature	AFDB Board, GOM
Year 1 – 5	Implementation	
Year 1 – 5	Oversight	Steering Committee ()
Year 1 – 5	Audit Reports	Annually by PCU
Year 3	Mid-Term Review	Bank and PCU to monitor
Year 5	Impact Study	PCU and Regions
Year 5	Project Completion Report	ASWAP and PCU to monitor; Bank to participate

4.3 Governance

4.3.1 The Agricultural sector in Malawi is repositioning itself to institutionalize transparency and good governance as evidenced in earlier detection by the management and ordering of full investigation of suspected salary fraud in the ministry. It should be noted that the MAIWD was not involved in the Malawi Cashgate of 2013. However, the requisite fiduciary management framework still pose a lot of challenges which include lack of qualified and experienced project accounting staff due to high turnover or attrition of accounting staff, weak internal controls and non-compliance with key internal control procedures within line ministry.

4.3.2 The 2015 report of Transparency International Corruption Perception Index showed that Malawi had slide from 37(88/176) to 31 (112/175) between 1912 and 2015. The overall score of 2015 was below Sub-Saharan average of 33 score. However, the overall average score for Malawi's Country Policy and Institutional Assessment (CPIA) Governance component has been improving slowly between 2004-2014 with intermittent slight decreases in 2010 (-0.1) and 2014 (-0.13). However, the theft of public funds amounting to about US Dollar 50 million in September, 2013 dubbed as Cash gate, exposed high level corruption and serious weaknesses in Malawi's PFM system. The current administration has since coming into power shown strong resolve to address the root causes of Cash gate and reform the PFM system. The Government is implementing the PFM Reform Action Plan to restore controls and integrity of the PFM system over the short term. The Government also is also implementing a broader Public Sector Reform Programme (PSRP) aimed at improving accountability and transparency in public service delivery. Steady progress in reforms is being made as evidenced by recent improvement in financial reporting and completion of pay roll audit. There are on-going efforts to strengthen the capacity of key governance institutions, such as the Anti-Corruption Bureau, Office of the Directorate of Public Procurement (ODPP) and the National Auditor General's Office.

4.4 Sustainability

4.4.1 The participatory approach adopted during the project design and envisioned to be extended during the implementation phase will enhance the ownership of project's activities and realizations by the main stakeholders ensuring its sustainability. The irrigation infrastructure will be operated and maintained by the Water Users Associations (WUAs) whose capacities will be developed through training. The project will ensure that at least 30% of women are represented in the irrigation management committees. Operation and Maintenance guidelines will be developed including tariff setting by the supervising consultant for the operation and maintenance of the schemes that takes into consideration past experiences in the management of irrigation schemes in the country. The WUAs are expected to cover the O&M costs from the contribution of farmers through water charges. Other sustainability of other components - Value Addition and Youth entrepreneurship and Agro-

Cooperatives Development for Employability are hinged on making paradigm shift of agriculture from development to business/commercial activities.

4.4.2 The project is financially sustainable. The analysis indicates 23% and 26% FIRR and EIRR respectively. It is evident that the farmers will be able to pay for the water usage (which is currently estimated at KWA50, 000 per annum) through the Water User Association given that farmers will be linked to processors who will be ready to buy their products. In order to strengthen the relationships between the two parties, provisions have been made for legal services. The project also makes provision for the training of artisans and technicians for the maintenance of the irrigation infrastructure. In addition regarding the irrigation infrastructure, marketing of value added products, provision of institutional support and development of strong farmer groups will work in synergy to ensure sustainability. In particular it is expected that, under AIYAP, the farmers who will be organized in Farmer Associations/Cooperative Societies will operate as farming businesses. Cooperative and Extension Officers will be recruited to provide technical supports in farms management, operation and maintenance. The analysis also indicates that the young entrepreneurs will be able to service their loans, as well as obtain handsome net profits for re-investments in running of their farms.

4.5 Risk management

4.5.1 One major risk is the unpredictability of agricultural markets due to trade restrictions and price controls on some items. The Government is being urged by DPs, for instance to deregulate agriculture markets including removal of bans and pegging the price on some strategic crops such as maize. Enactment of the Goods Control Act would help to improve market predictability. However, there is already a guaranteed market for sugarcane production by linking the farmers with Dwangwa Cane Growers Trust and Dwangwa Cane Growers Company Ltd.

4.5.2 Volatility of the world commodity prices

Mitigation: The country enjoys accessibility to SADC market and the project lays emphasis on internal processing of raw materials and value addition.

4.5.3 *Project Cost Overruns:* Project cost overruns due to exchange rate fluctuations, uncertainties in economic situation of Malawi and SADC and the rise in the cost of materials.

Mitigation: Project is costed in USD and efficient procurement timing to address the increases, as well as adequate price contingencies for the unavoidable increases will be provided in the project costing.

4.5.4 *Reduced precipitation, increased temperature, change in length of rainy season, increased incidences of drought and floods, due to climate risks:*

Mitigation: Training regarding vulnerabilities, assisting the communities to select various adaptation measures; e.g. rainwater harvesting, rotational grazing, using drought tolerant varieties e.g. cassava, sorghum etc.

4.5.5 Delay in providing counterpart funding:

Mitigation: The GoM contributions will be largely be in kind in form of provisions of office spaces, furniture, salary and wages, allowances (including per diem of staff), payment of all utility bills, office equipment and payment of hotel bills for staff seconded to the project.

4.6 Knowledge building

4.6.1 The knowledge gained and lessons learnt through the implementation of various agricultural projects in Malawi, government policies as well as studies carried out in the sector have been duly applied in designing this project. Similarly, the knowledge that will be generated through implementation of this Project will be synergised with other projects on ground such as SIVAP and AISP to achieve maximum result. The results from the various studies and other surveys, including the socio-economic impact study will inform the stakeholders on how to put the acquired knowledge into practical use for better results-oriented achievements and sustained benefit flows.

4.6.2 At the project level, the project implementation review, quarterly progress reports, audit, sector M&E and completion reports will also provide information on various aspects of the project for further diagnosis. The knowledge obtained will be shared within the Bank and with other development partners as well as with RMCs.

V LEGAL INSTRUMENTS AND AUTHORITY

5.1 *Legal instrument*

The Project will be financed by an ADF loan.

5.2 *Conditions associated with Bank's intervention*

5.2.1 Conditions Precedent to Entry into Force of the Loan Agreement: 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 Applicable to Loans and Guarantee Agreements of the ADF.

5.2.2 Conditions Precedent to First Disbursement of the Loan: The obligation of the Bank to make the first disbursement of the loan shall be conditional upon entry into force of Loan Agreement in accordance with 5.2.1 above and the submission by the Borrower of evidence in form and substance satisfactory to the Bank, of the opening of a special account in a bank acceptable to the Bank into which the proceeds of the Loan will be deposited.

5.2.3 Other Conditions: The Borrower shall cause the Executing Agency to: (a) establish a Project Implementation Unit (PIU) within six months of the entry into force of the Loan Agreement..

5.2.4 Undertaking: The Borrower shall cause the Executing Agency to implement the project in compliance with national legislations and in accordance with the Environmental and Social Management Framework (ESMF) and submit to the Bank on an annual basis an acceptable Environmental and Social Monitoring Report.

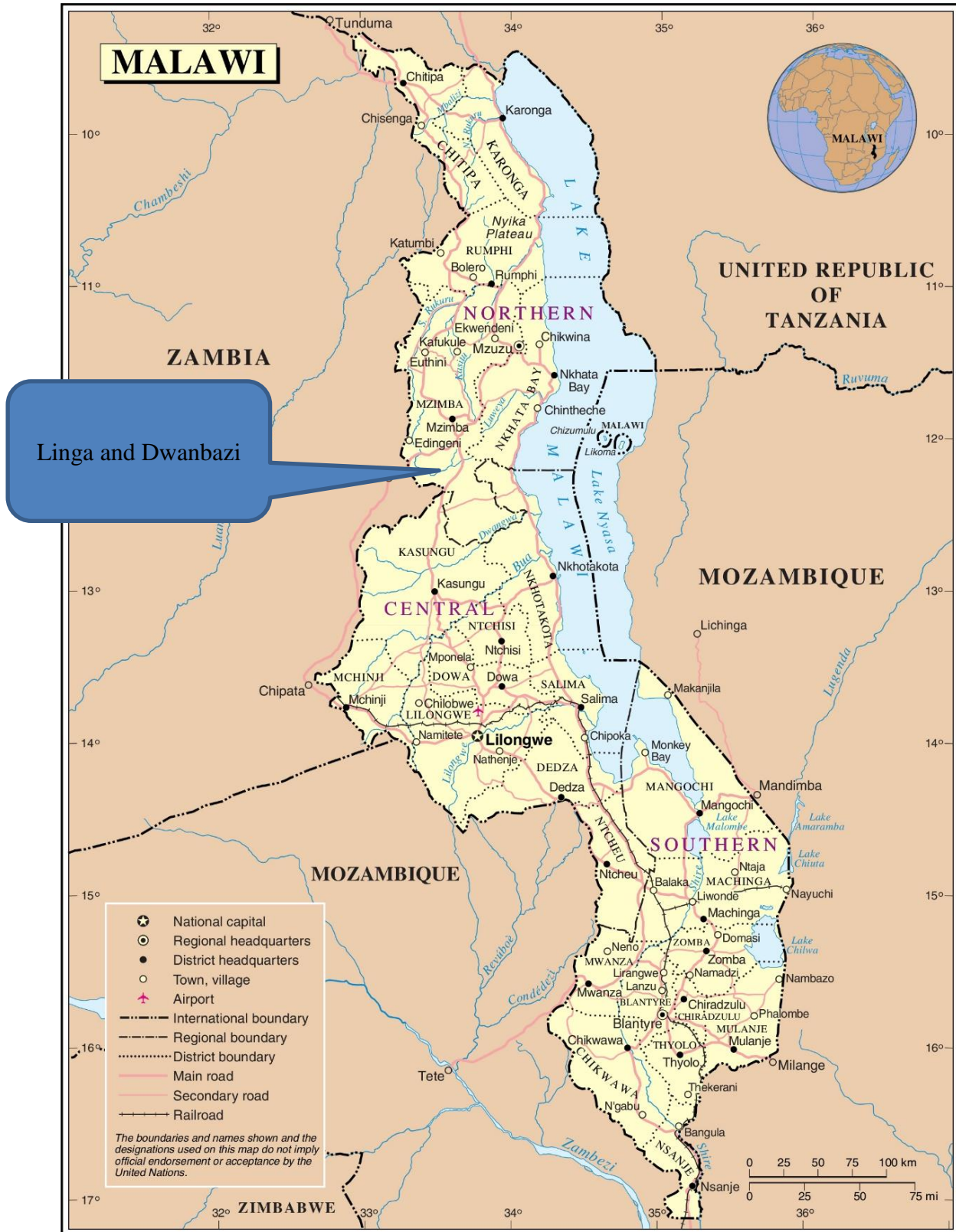
5.3 *Compliance with Bank Policies*

This Project complies with all applicable Bank policies.

VI RECOMMENDATION

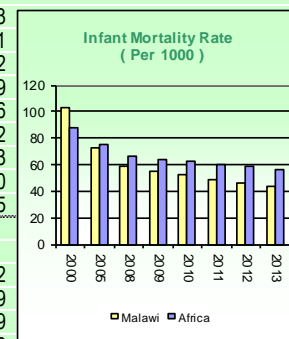
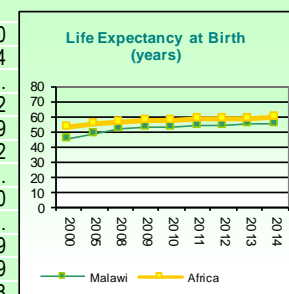
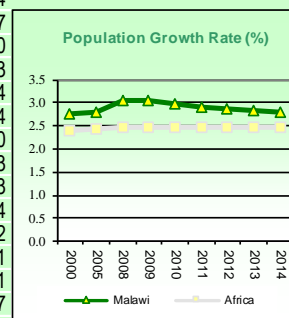
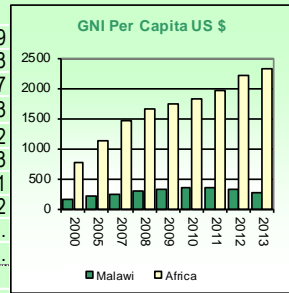
Management recommends that the Board of Directors approve the proposed ADF loan of UA16 million to the Government of Malawi for the purposes and subject to the conditions stipulated in this report.

APPENDIX 1. Map of Malawi showing Project Location



APPENDIX II. Malawi's Comparative Socio-Economic Indicators

	Year	Malawi	Africa	Developing Countries	Developed Countries
Basic Indicators					
Area ('000 Km²)	2014	118	30,067	80,386	53,939
Total Population (millions)	2014	16.8	1,136.9	6.0	1.3
Urban Population (% of Total)	2014	16.1	39.9	47.6	78.7
Population Density (per Km²)	2014	142.0	37.8	73.3	24.3
GNI per Capita (US \$)	2013	270	2 310	4 168	39 812
Labor Force Participation - Total (%)	2014	83.0	66.1	67.7	72.3
Labor Force Participation - Female (%)	2014	51.0	42.8	52.9	65.1
Gender -Related Development Index Value	2007-2013	0.891	0.801	0.506	0.792
Human Develop. Index (Rank among 187 countries)	2013	174	...	...	...
Popul. Living Below \$ 1.25 a Day (% of Population)	2008-2013	72.2	39.6	17.0	...
Demographic Indicators					
Population Growth Rate - Total (%)	2014	2.8	2.5	1.3	0.4
Population Growth Rate - Urban (%)	2014	3.8	3.4	2.5	0.7
Population < 15 years (%)	2014	45.0	40.8	28.2	17.0
Population >= 65 years (%)	2014	3.2	3.5	6.3	16.3
Dependency Ratio (%)	2014	96.7	62.4	54.3	50.4
Sex Ratio (per 100 female)	2014	100.6	100.4	107.7	105.4
Female Population 15-49 years (% of total populatic	2014	22.6	24.0	26.0	23.0
Life Expectancy at Birth - Total (years)	2014	55.8	59.6	69.2	79.3
Life Expectancy at Birth - Female (years)	2014	55.8	60.7	71.2	82.3
Crude Birth Rate (per 1,000)	2014	39.4	34.4	20.9	11.4
Crude Death Rate (per 1,000)	2014	11.1	10.2	7.7	9.2
Infant Mortality Rate (per 1,000)	2013	44.2	56.7	36.8	5.1
Child Mortality Rate (per 1,000)	2013	67.9	84.0	50.2	6.1
Total Fertility Rate (per woman)	2014	5.3	4.6	2.6	1.7
Maternal Mortality Rate (per 100,000)	2013	510.0	411.5	230.0	17.0
Women Using Contraception (%)	2014	50.1	34.9	62.0	...
Health & Nutrition Indicators					
Physicians (per 100,000 people)	2004-2012	1.9	46.9	118.1	308.0
Nurses (per 100,000 people)*	2004-2012	34.3	133.4	202.9	857.4
Births attended by Trained Health Personnel (%)	2009-2012	71.4	50.6	67.7	...
Access to Safe Water (% of Population)	2012	85.0	67.2	87.2	99.2
Healthy life expectancy at birth (years)	2012	50.0	51.3	57	69
Access to Sanitation (% of Population)	2012	10.3	38.8	56.9	96.2
Percent. of Adults (aged 15-49) Living with HIV/AIDS	2013	10.3	3.7	1.2	...
Incidence of Tuberculosis (per 100,000)	2013	156.0	246.0	149.0	22.0
Child Immunization Against Tuberculosis (%)	2013	96.0	84.3	90.0	...
Child Immunization Against Measles (%)	2013	88.0	76.0	82.7	93.9
Underweight Children (% of children under 5 years)	2005-2013	13.8	20.9	17.0	0.9
Daily Calorie Supply per Capita	2011	2 334	2 618	2 335	3 503
Public Expenditure on Health (as % of GDP)	2013	4.2	2.7	3.1	7.3
Education Indicators					
Gross Enrolment Ratio (%)					
Primary School - Total	2011-2014	141.3	106.3	109.4	101.3
Primary School - Female	2011-2014	143.8	102.6	107.6	101.1
Secondary School - Total	2011-2014	36.6	54.3	69.0	100.2
Secondary School - Female	2011-2014	34.9	51.4	67.7	99.9
Primary School Female Teaching Staff (% of Total)	2012-2014	39.9	45.1	58.1	81.6
Adult literacy Rate - Total (%)	2006-2012	61.3	61.9	80.4	99.2
Adult literacy Rate - Male (%)	2006-2012	72.1	70.2	85.9	99.3
Adult literacy Rate - Female (%)	2006-2012	51.3	53.5	75.2	99.0
Percentage of GDP Spent on Education	2009-2012	5.4	5.3	4.3	5.5
Environmental Indicators					
Land Use (Arable Land as % of Total Land Area)	2012	39.8	8.8	11.8	9.2
Agricultural Land (as % of land area)	2012	0.6	43.4	43.4	28.9
Forest (As % of Land Area)	2012	33.6	22.1	28.3	34.9
Per Capita CO2 Emissions (metric tons)	2012	0.1	1.1	3.0	11.6



Sources : AfDB Statistics Department Databases; World Bank: World Development Indicators;

last update :

July 2015

UNAIDS; UNSD; WHO, UNICEF, UNDP; Country Reports.

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

APPENDIX III. Table of ADB's Portfolio in Malawi as at 31st May 2016

Division	Long name	Loan Number	Project ID	Sector	Window	Approval date	Planned project completion date	Amount Approved (UA)	Amount Disbursed (UA)	Disbursement Ratio	Age (Years)
AWTF	SHIRE VALLEY IRRIGATION PROJECT FEASIBILITY STUDY	5600155003701	P-MW-AAC-008	Agriculture	[OTHERS]	12/18/2013	6/1/2018	1,427,866.1	0.0	0.0	1.6
OSAN1	AGRICULTURE DEVELOPMENT PROGRAMME - ISP	2100155016517	P-MW-AAA-004	Agriculture	[ADF]	9/9/2009	6/30/2016	15,000,000.0	5,438,828.1	36.3	5.9
OSAN3	SMALLHOLDER IRRIGATION AND VALUE ADDITION PROJECT (SIVAPIFUN	2100155024516	P-MW-AAO-026	Agriculture	[ADF]	3/13/2013	12/31/2018	253,000.0	26,769.7	10.6	2.4
OSAN3	SMALLHOLDER IRRIGATION AND VALUE ADDITION PROJECT (SIVAPIFUN	5570155000151	P-MW-AAO-026	Agriculture	[OTHERS]	3/13/2013	12/31/2018	28,151,792.2	4,577,009.0	16.3	2.4
				Agriculture				44,832,658.3	10,042,606.8	22.4	3.0
OSAN3	GEF CARLA CLIMATE ADAPTATION FOR RURAL LIVELIHOODS AND AGRIC	5550155000051	P-MW-COO-001	Environment	[OTHERS]	11/10/2011	6/30/2016	2,132,711.5	1,428,533.9	67.0	3.7
				Environment				2,132,711.5	1,428,533.9	67.0	3.7
OSGE2	PUBLIC FINANCE MANAGEMENT INSTITUTIONAL SUPPORT PROJECT	2100155025967	P-MW-KFO-002	Multi-Sector	[ADF]	10/8/2013	12/31/2017	2,980,000.0	803,564.1	27.0	1.8
				Multi-Sector				2,980,000.0	803,564.1	27.0	1.8
ONEC2	KOLOMBIDZO HYDRO POWER PROJECT FEASIBILITY STUDY	2100155024773	P-MW-FAO-001	Power	[ADF]	3/25/2013	6/30/2015	2,000,000.0	146,282.8	7.3	2.3
				Power				2,000,000.00	146,282.82	7.31	2.3
OSHD1	SUPPORT TO LOCAL ECONOMIC DEVELOPMENT	2100150017493	P-MW-IEO-002	Social	[ADF]	9/24/2008	12/31/2015	14,000,000.0	11,811,626.7	84.4	6.8
OSHD1	SUPPLEMENTARY LOAN LOCAL ECONOMIC DEVELOPMENT	2100150023643	P-MW-IEO-003	Social	[ADF]	12/9/2010	12/31/2015	3,162,000.0	2,608,508.2	82.5	4.6
OSHD1	COMPETITIVENESS AND JOB CREATION SUPPORT PROJECT	2100150025701	P-MW-IEO-004	Social	[ADF]	12/16/2011	12/31/2017	10,000,000.0	3,730,478.3	37.3	3.6
OSHD1	PROTECTION OF BASIC SERVICES	2100155029667	P-MW-IEO-005	Social	[ADF]	4/29/2015		19,000,000.0	0.0	0.0	0.2
OSHD2	SUPPORT TO HIGHER EDUCATION SCIENCE & TECHNOLOGY & TECHNICAL	2100150026296	P-MW-IAD-001	Social	[ADF]	2/8/2012	12/31/2018	9,050,000.0	2,050,339.8	22.7	3.4
OSHD2	SUPPORT TO HIGHER EDUCATION SCIENCE & TECHNOLOGY & TECHNICAL	2100155022172	P-MW-IAD-001	Social	[ADF]	2/8/2012	12/31/2018	10,950,000.0	777,730.4	7.1	3.4
OSHD2	SUPPORT TO HIGHER EDUCATION SCIENCE & TECHNOLOGY & TECHNICAL	2200160000939	P-MW-IAD-001	Social	[NTF]	2/8/2012	12/31/2018	6,500,000.0	1,170,075.9	18.0	3.4
				Social				72,662,000.0	22,148,759.2	30.5	3.7
OITC2	MALAWI TRUNK ROAD REHABILITATION: BLANTYRE-ZOMBA	2100150019845	P-MW-DBO-011	Transport	[ADF]	5/22/2009	12/31/2015	22,980,000.0	16,226,652.2	70.6	6.2
OITC2	MALAWI TRUNK ROAD REHABILITATION: BLANTYRE-ZOMBA	2100155015418	P-MW-DBO-011	Transport	[ADF]	5/22/2009	12/31/2015	1,124,000.0	87,024.6	7.7	6.2
OITC2	MALAWI: MZUZU-NKHATABAY ROAD REHABILITATION PROJECT	2100150028743	P-MW-DBO-012	Transport	[ADF]	3/13/2013	12/31/2015	21,890,000.0	307,875.8	1.4	2.4
OITC2	NACALA ROAD CORRIDOR PROJECT PHASE IV (LIWONDE-MANGOCHI) MA	2100150030794	P-Z1-DBO-084	Transport	[ADF]	12/3/2013	12/31/2018	42,360,000.0	0.0	0.0	1.6
				Transport				88,354,000.0	16,621,552.6	18.8	4.1
OWAS2	SUSTAINABLE RURAL WATER AND SANITATION INFRASTRUCTURE FOR IM	2100150031195	P-MW-E00-006	Water Sup/Sanit	[ADF]	4/30/2014	12/31/2019	15,000,000.0	33,274.9	0.2	1.2
OWAS2	SUSTAINABLE RURAL WATER AND SANITATION INFRASTRUCTURE FOR IM	2200160001289	P-MW-E00-006	Water Sup/Sanit	[NTF]	4/30/2014	12/31/2019	5,000,000.0	249,775.0	5.0	1.2
OWAS2	SUSTAINABLE RURAL WATER AND SANITATION INFRASTRUCTURE FOR IM	5800155001352	P-MW-E00-006	Water Sup/Sanit	[OTHERS]	4/30/2014	12/31/2019	2,787,245.6	8,583.9	0.3	1.2
				Water Sup/Sanit				22,787,245.6	291,633.8	1.3	1.2
				Grand Total				235,748,615.4	51,482,933.1	21.8	3.2

Appendix IV: Key Related Projects Financed by the Bank and Other Development Partners

Donor/Agency	Project Title	Project Coverage ⁹	Budget (USD m)	Implementing Organization	Project Status
African Development Bank	Agriculture Infrastructure Support Project (AISP)	KK, NE, NS, CK	22.0	ASWAp Secretariat	On-going
	Smallholder Crop Production and Marketing Project (SCPMP)	CP, KA, MZ, NB, RU, DZ, DA, KU, LL, MT, KK, NU, NT, BLK, CK, MHG, MH, NS & ZA	22.0	PIU	On-going
	Competitiveness & Job Creation Project for Private Sector	MZ, KU, NT, DA, LL, DZ, ZA, CZ, TO & MJ		MoIT	On-going
	Smallholder Irrigation and Value Addition Project (SIVAP)	KA, SA, MHG, CK, KK,	39.00	Irrigation Dept	On-going
	CLIMATE ADAPTATION FOR RURAL LIVELIHOOD AND AGRICULTURE (CARLA) PROJECT	KA, DZ, CK	3.00	Department of Environment	On-going
European Union (EU)	Food Security program	Country wide	22.06	PIU	On-going
	Farm Income Diversification Program (FIDP)	KA, CP, MZ, NB, KK, LL, SA, DA, TO, CZ, BLK and RU	25.53	Government (MoAFS)	On-going
World Bank	IRLADP (Irrigation, Rural Livelihoods and Agricultural Development Project)	NE, CK, BT, PE, ZA, DZ, LL, SA, NB, RU, CH	102.70	PIU - MoAFS	On-going
	ASWAp-SP (Agricultural Sector Wide Approach - Support Project)	Country Wide	68.00	Government (MoAFS)	On-going
	Shire River Basin Management Project	CK, NE, NU, MH, BLK, MN, NENO, BT, CZ, PE, MJ	131.00	Government (MoWDI)	On-going
International Fund for Agriculture Development (IFAD)	IRLADP	NE, CK, BT, PE, ZA, DZ, LL, SA, NB, RU, CH	8.00	Government through PIU	On-going
	SAPP	CK, KK, LL, CZ, BT, BLK	45.70	MoAFS/ASWAp	On-going
	RLEEP	DZ, MC, NS	16.70	MLGRD/PIU	On-going
	RLSP	TO, NS, CZ	14.80	MLGRD/PIU	On-going
US Aid for International Development (USAID)	Integrating Nutrition in Value Chains (INVC)	MC, LL, DZ, NU, MH, MHG, BLK	24.6	Development Alternatives Inc.	On-going
	Wellness and Agriculture for Life Advancement (WALA)	MJ, CK, ZA, MHG, NE, BLK, TO	80.93	Catholic Relief Services (CRS)	On-going
Irish Aid	Conservation Agriculture Project	KA, RU, MZ, KK, NE, LL, NU, BLK, MC, ZA, MJ	1.57	NASFAM	On-going
	Agroforestry Food Security Programme	SA, DZ, NU, LL, CK, MJ, KA, MHG, TO, NS, MZ	3.14	World Agroforestry Centre (ICRAF)	On-going
	Malawi Seed Industry Development Project	KA, MZ, MC KU, LL.	3.76	International Crops Research for the Semi-Arid Tropics-ICRISAT	On-going
Norway	ASWAp-SP	Country Wide	11.20	MoAFS	On-going
	NASFAM	Country Wide	15.80	NASFAM	On-going
Flemish International Cooperation Agency (FICA)	GDCP/MLW/001/FLA	KU, MZ	5.41	UN-FAO	On-going
	MMPA	Central & Northern Malawi	0.66	Malawi Milk Producers Association	On-going
	MZCPCU	CP, RU, MZ, NB	0.66	Mzuzu Coffee Planters Cooperative Union	On-going
	STP	KU, MZ	0.69	FUM, NASFAM, TAPP, Microloan,	On-going

⁹ Project coverage/Districts names' key: BLK = Balaka; BT = Blantyre; CP = Chitipa; CK = Chikhwawa; CZ = Chiradzulu; DZ = Dedza; DA = Dowa; KA = Karonga; KK = Nkhotakota; LL = Lilongwe; MJ = Mulanje; MZ= Mzimba; MN = Mwanza; MC = Mchinji; MH = Mangochi; MHG = Machinga; NB = Nkhata Bay; NE = Neno; NU = Ntcheu; NS = Nsanje; NS = Ntchisi; PE = Phalombe; RU = Rumphi; SA = Salima; TO = Thyolo; and ZA = Zomba.

Donor/Agency	Project Title	Project Coverage ⁹	Budget (USD m)	Implementing Organization	Project Status
				MOGA, DAMRA, MEJN	
	SAETS	KU, MZ	8.40	DAES, DAHL, Bunda College, NRC, SSLPP	On-going
	ASWAp-SP	Country wide	6.61	Government	On-going
Japan International Cooperation Agency (JICA)	Partnership on Community Based Irrigation Management Project to Dedza	DZ	0.37	Government - Department of Irrigation	On-going
	Sustainable Land Management Promotion Project	RU, MZ, NB	2.76	Government - Department of Land Resources	On-going
	The Technical Cooperation Project for Development of Medium Scale Irrigation	MHG, MJ	2.63	Government - Department of Irrigation	On-going
Food and Agriculture Organisation of the United Nations (FAO)	FAO-UNJPs Projects : (i) Cassava Commercialization and value addition: UNJP/MLW/046/EDF (ii) Reduction of Post-Harvest Losses through construction of Community Managed Grain Banks (Small stock production, Climate change & NRM)	KK, SA	6.45	PMU/FAO Contract Staff/MoAFS/Min of Youth	On-going
	FAO-ECU-Conservation Agriculture Coordination and Advocacy in Southern Africa	RU, KK, BLK, CK	0.12	PMU/FAO Contract Staff and MoAFS	On-going
	FAO-GDCP-FLANDERS-Improving Food Security and Nutrition Policies and Program Outreach	MZ, KU	5.30	PMU/FAO Contract Staff and District Assemblies	On-going
	FAO-GCP/INT/139/EC: Climate Smart Agriculture: Capturing the synergies between Mitigation, Adaptation and Food Security	Country wide	2.23	PMU/FAO/MoAFS-LRCD/Bunda College	On-going
United Nations Development Programme (UNDP)	Sustainable Land Management	NE, MN, BLK, BT	2.50	Ministry of Environment and Climate Change Management	On-going
World Food Programme (WFP)	Purchase for Progress	NS, MZ, MC, DZ, NU, ZA, KU, DA	17.59	WFP/GoM	On-going

Appendix V: FRAGILITY REPORT

1. Introduction

1.1 The country has few resources and is highly dependent on external aid. It is rapidly urbanizing and has high population growth and limited arable land. These challenges have manifested in unfavourable socio-economic indicators, including a high incidence of poverty.

Malawi's other main challenges include improving infrastructure mainly energy and water delivery which are adversely affecting private sector investment, addressing a scarcity of skilled human resources, provision of health care, reforming its public financial management (PFM) system, and the large and relatively inefficient public service including parastatals.

The **Agricultural Infrastructure and Youth in Agribusiness Project** is to address the twin problems of food security and high rate youth unemployment within the context of 2011-2016 Malawi Growth and Development Strategy (MGDS) which identified agriculture and food security, irrigation and green belt initiatives as drivers of economic growth. Agriculture in Malawi is highly vulnerable to the adverse impacts of climate change and extreme weather events, such as dry spells, droughts and floods.

1.2 The project Fragility Assessment Report (PFAR) of the Agricultural Infrastructure and Youth Skill Development in Agribusiness Project (AIYAP) is based on the Country Profile Report of 2016, which identified the key drivers of fragility of Malawi including: the country's dependence on a single agricultural export, High population density, Poverty reduction has been slow, Natural disasters and climate change, Weak financial sector development, Gender Inequality

2 Main Drivers of Fragility for Malawi

2.1 The country's dependence on a single agricultural export tobacco is a risk, there is a need of agricultural diversification and its success will depend on adequate infrastructures (road) access and relaxation of remaining trade restrictions.

2.2 High population density increases the land degradation and reduce agricultural productivity and damage infrastructure, and adversely affect human health and critical ecosystems.

2.3 Poverty reduction has been slow and low human development outcomes have been exacerbated by high household vulnerability to weather shocks and high population growth.

2.4 Natural disasters and climate change caused by land degradation, resulting from significant loss of soil fertility, soil erosion impacted severely the country through frequent occurrences of drought and floods, specifically for the majority of rural households who depend on the fragile natural resource base for their livelihoods.

2.5 Weak financial sector development as more than 50 percent of the population are not formally banked. Many key barriers to financial access like limited accessibility of financial service points; lack of collateral, high transaction costs; capacity constraints; crowding effect of the public sector, and the lack of market coordination and harmonization between public and private initiatives seeking to promote better access to financial services still.

2.6 Gender Inequality keep limiting women's access to agricultural inputs and their share in the benefits of production, as well as access to education, health, and other social services.

3 Assessment and conclusion

The project does not have dual objective on fragility nor specific fragility indicators for monitoring and evaluation but the design has duly incorporated the key drivers of fragility. The related interventions will help to address the key drivers of fragility as highlighted in the assessment