

Document of
The World Bank
FOR OFFICIAL USE ONLY

Report No: PAD2264

INTERNATIONAL DEVELOPMENT ASSOCIATION
PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED CREDIT
IN THE AMOUNT OF SDR 70.1 MILLION
(US\$95 MILLION EQUIVALENT)
TO THE
REPUBLIC OF MALAWI
FOR A
MALAWI AGRICULTURAL COMMERCIALIZATION PROJECT
May 2, 2017

Agriculture Global Practice
Africa Region

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

CURRENCY EQUIVALENTS

(Exchange Rate Effective March 31, 2017)

Currency Unit = Malawi Kwacha (MWK)

MWK 725 = US\$1

US\$1.357 = SDR 1

FISCAL YEAR

July 1 - June 30

Regional Vice President: Makhtar Diop

Country Director: Bella Bird

Senior Global Practice Director: Juergen Voegele

Country Manager: Laura Kullenberg

Practice Manager: Mark E. Cackler

Task Team Leader: Valens Mwumvaneza,

Co-Task Team Leaders Asa Margareta G. Hoglund Giertz, Efrem Zephnath
Chilima

ABBREVIATIONS AND ACRONYMS

ACB	Anti-Corruption Bureau
ACE	Agricultural Commodity Exchange
AGCOM	Agricultural Commercialization Project
AHCX	Auction Holdings Commodity Exchange
ASWAp SP	Agriculture Sector Wide Approach Support Project
CAS	Country Assistance Strategy
CSA	Climate Smart Agriculture
DA	Designated Account
DPO	Development Policy Operation
EFA	Economic and Financial Analysis
EIRR	Economic Internal Rate of Return
ENPV	Economic Net Present Value
Eoi	Expression of Interest
ERR	Economic Rate of Return
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FAO	Food and Agriculture Organization
FM	Finance Management
GAC	Governance and Anti-Corruption
GDP	Gross Domestic Product
GHG	Greenhouse gas
GRS	Grievance Redress Service
ha	Hectare
HACCP	Hazard Analysis and Critical Control Point
IDA	International Development Association
IFAD	International Fund for Agricultural Development
IFC	International Financial Corporation
IFMIS	Integrated Financial Management Information Systems
IFR	Interim Financial Reports
IPF	Investment Project Financing
IPMP	Integrated Pest Management Plan
IRLADP	Irrigation Rural Livelihoods Agricultural Development Project
IRR	Internal Rate of Return
ISO	International Organization for Standardization
M&E	Monitoring and evaluation
km	Kilometer
MBS	Malawi Bureau of Standards
MCCCI	Malawi Confederation of Chambers of Commerce and Industry
MFI	Microfinance Institution
MGDS	Malawi Growth and Development Strategy
MIS	Management Information System
MITC	Malawi Investment and Trade Centre
MoAIWD	Ministry of Agriculture, Irrigation and Water Development
MoFEPD	Ministry of Finance, Economic Planning and Development
MoITT	Ministry of Industry, Trade, and Tourism
MoLHUD	Ministry of Lands, Housing and Urban Development
MOU	Memorandum of Understanding
t	Metric ton
OBM	Opportunity Bank of Malawi
ODPP	Office of Director of Public Procurement

OP/BP	Operational Policy/Bank Procedures
PA	Productive Alliance
PCG	Partial Credit Guarantee
PDO	Project Development Objective
PIM	Project Implementation Manual
PIU	Project Implementation Unit
PLR	Performance and Learning Review
PO	Producer Organization
PP	Procurement Plan
PPD	Public Private Dialogue
PPSD	Project Procurement Strategy for Development
PS	Principal Secretary
PSC	Project Steering Committee
PTC	Project Technical Committee
RIA	Responsible Investment in Agriculture and Food Systems
SACCO	Savings and Credit Cooperative
SME	Small and Medium Enterprise
SPS	Sanitary and Phytosanitary
T&C	Trade and Competitiveness
TA	Technical Assistance
TIP-SWAp	Trade, Industry and Private Sector Development Sector Wide Approach
ToR	Terms of Reference
USAID	United States Aid for International Development
VGGT	Voluntary Guidelines on the Responsible Governance of Tenure
WTO	World Trade Organization
WUA	Water User Association
yr	Year



BASIC INFORMATION

Is this a regionally tagged project? No	Country(ies)	Financing Instrument Investment Project Financing
<input type="checkbox"/> Situations of Urgent Need of Assistance or Capacity Constraints <input type="checkbox"/> Financial Intermediaries <input type="checkbox"/> Series of Projects		
Approval Date 23-May-2017	Closing Date 31-May-2023	Environmental Assessment Category B - Partial Assessment
Bank/IFC Collaboration Yes	Joint Level Complementary or Interdependent project requiring active coordination	

Proposed Development Objective(s)

The Project Development Objective is to increase commercialization of agriculture value chain products selected under the project.

Components

Component Name	Cost (US\$, millions)
COMPONENT 1: BUILDING PRODUCTIVE ALLIANCES	62.00
COMPONENT 2: SUPPORT INVESTMENT ENABLING SERVICES	23.00
COMPONENT 3: CONTINGENT EMERGENCY RESPONSE COMPONENT (CERC)	0.00
COMPONENT 4: PROJECT COORDINATION AND MANAGEMENT	10.00

Organizations

Borrower : Ministry of Finance, Economic Planning and Development



Implementing Agency : Ministry of Agriculture, Irrigation and Water Development
Ministry of Industry, Trade and Tourism

Safeguards Deferral

Will the review of safeguards be deferred?

Yes No

PROJECT FINANCING DATA (IN USD MILLION)

<input type="checkbox"/> Counterpart Funding	<input type="checkbox"/> IBRD	<input checked="" type="checkbox"/> IDA Credit <input type="checkbox"/> Crisis Response Window <input type="checkbox"/> Regional Projects Window	<input type="checkbox"/> IDA Grant <input type="checkbox"/> Crisis Response Window <input type="checkbox"/> Regional Projects Window	<input type="checkbox"/> Trust Funds	<input type="checkbox"/> Parallel Financing
--	-------------------------------	--	--	--------------------------------------	---

Total Project Cost:
95.00

Total Financing:
95.00

Financing Gap:
0.00

Of Which Bank Financing (IBRD/IDA):
95.00

Financing (in US\$, millions)

Financing Source	Amount
International Development Association (IDA)	95.00
Total	95.00

Expected Disbursements (in US\$, millions)

Fiscal Year	2017	2018	2019	2020	2021	2022	2023
Annual	0.08	7.77	14.66	23.08	23.13	19.41	6.87



Cumulative	0.08	7.85	22.51	45.59	68.72	88.13	95.00
------------	------	------	-------	-------	-------	-------	-------

INSTITUTIONAL DATA

Practice Area (Lead)

Agriculture

Contributing Practice Areas

Gender

Jobs

Trade & Competitiveness

Social, Urban, Rural and Resilience Global Practice

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?

a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF

Yes

b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment

Yes

c. Include Indicators in results framework to monitor outcomes from actions identified in (b)

Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category

Rating

1. Political and Governance

● Substantial

2. Macroeconomic

● High

3. Sector Strategies and Policies

● Substantial

4. Technical Design of Project or Program

● High



5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● High
7. Environment and Social	● Moderate
8. Stakeholders	● Moderate
9. Other	
10. Overall	● High

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

Yes No

Does the project require any waivers of Bank policies?

Yes No

Safeguard Policies Triggered by the Project

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

Legal Covenants

Sections and Description

Schedule 2. Section I A. 1. (a): The Recipient shall designate, at all times during the implementation of the Project, the MAIWD to be responsible for prompt and efficient oversight and coordination of the implementation of



activities under the Project, and shall take all actions including the provision of funding, personnel and other resources necessary to enable the MAIWD to perform its functions, in consultation with MoITT, MoLHUD and other implementing entities under the Project.

Sections and Description

Article V. 5.01 (b): Project Implementation Unit: The Recipient, through MAIWD shall establish not later than the Effective Date, and thereafter maintain at all times during the implementation of the Project, a Project Implementation Unit (“PIU”) with a composition, mandate, staffing (including, Coordinator, Procurement Specialist and Financial Management)and other resources satisfactory to the Association. The PIU shall be responsible for day to day oversight and coordination of the implementation of activities under the Project, all in accordance with the provisions of the Project Implementation Manual.

Sections and Description

Schedule 2. Section I. A. 2: Project Steering Committee (“PSC”): The Recipient shall, not later than 45 days after the Effective Date, establish and thereafter maintain at all times during the implementation of the Project, a PSC with a composition, mandate, terms of reference and resources satisfactory to the Association, to be responsible for, inter alia, providing strategic and policy guidance on matters relating to the Project, all in accordance with the provisions of the Project Implementation Manual.

Sections and Description

Schedule 2. Section I. A. 3 (a): Partial Credit Guarantee Fund Agent (“PCGF Agent”): The Recipient shall not later than 120 days after the Effective Date, appoint and thereafter maintain at all times during the implementation of the Project, a PCGF Agent.

Sections and Description

Schedule 2. Section I. B. 3 (a): .Annual Work Plan and Budget: The Recipient shall prepare and furnish to the Association not later than May 31 of each Fiscal Year during the implementation of the Project, a work plan and budget containing all activities (including PO Sub-projects and Last Mile Sub-projects under the Project) proposed to be included in the Project during the following Fiscal Year, and a proposed financing plan for expenditures required for such activities, setting forth the proposed amounts and sources of financing.

Sections and Description

Article V. 5.01 (a): The Recipient has adopted a Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement.

Conditions

Type	Description
Effectiveness	The Recipient has established the Project Implementation Unit in accordance with



	the provisions of Section I.A.1(b) of Schedule 2 to the Financing Agreement.
Type Effectiveness	Description The Recipient has adopted a Project Implementation Manual in accordance with the provisions of Section I.B.1 of Schedule 2 to the Financing Agreement.

PROJECT TEAM

Bank Staff

Name	Role	Specialization	Unit
Valens Mwumvaneza	Team Leader(ADM Responsible)		GFA13
Asa Margareta G. Hoglund Giertz	Team Leader		GFA13
Efrem Zephnath Chilima	Team Leader		GTC01
Steven Maclean Mhone	Procurement Specialist(ADM Responsible)		GGO01
Trust Chamukuwa Chimaliro	Financial Management Specialist		GGO31
Adesimi Freeman	Peer Reviewer		GTC07
Angela Maria Lopes Delfino	Team Member	Legal team	LEGEN
Augustine Sangson Langyintuo	Team Member		GTCAF
Blessings Nyanjagha Botha	Team Member		GFA13
Boyenge Isasi Dieng	Safeguards Specialist	Safeguards Consultant	GSU07
Catherine Kadennyeka Masinde	Program Manager		GTCAF
Chikondi Clara Nsusa-Chilipa	Team Member		GFA13
Christine Heumesser	Team Member		GFAGE
Christine Makori	Counsel	Senior Counsel	LEGAM
David Tuchsneider	Peer Reviewer		GFA04
Dilnara Isamiddinova	Team Member	M&E	GFAGE
Gloria Pamela Chinguo	Team Member		AFMMW
Hawanty Page	Team Member		GFA13



Jane A. N. Kibbassa	Safeguards Specialist	Environmental Safeguards	GEN01
Juvenal Nzambimana	Team Member		GFA01
Maiada Mahmoud Abdel Fattah Kassem	Team Member		WFALA
Marc Peter Sadler	Peer Reviewer		GFAGE
Mary C.K. Bitekerezo	Safeguards Specialist	Social Safeguards	GSU07
Mercy Chimpokosera-Mseu	Team Member		GFA13
Srilatha Shankar	Team Member		GFA13
Stella Chepkorir	Team Member		WFALA
Steven R. Dimitriyev	Team Member		GTC01
Syed Estem Dadul Islam	Team Member	M&E	CDIG3
Tamara Juvenile Mwafongo	Team Member		AFMMW
Time Hapana Fatch	Team Member		GFA13
Toshiaki Ono	Team Member	Finance and markets	GFM3A
Extended Team			
Name	Title	Organization	Location
Abhinav Gupta	STC		Mumbai, India
Moses Siambi	Regional and Research Program Director	ICRISAT	Kenya



MALAWI
MALAWI AGRICULTURAL COMMERCIALIZATION PROJECT

TABLE OF CONTENTS

I. STRATEGIC CONTEXT	10
A. Country Context	10
B. Sectoral and Institutional Context	10
C. Higher Level Objectives to which the Project Contributes	13
II. PROJECT DEVELOPMENT OBJECTIVES	13
A. PDO	13
B. Project Beneficiaries	14
C. PDO-level Results Indicators	14
III. PROJECT DESCRIPTION	14
A. Project Components	14
B. Project Cost and Financing	21
C. Lessons Learned and Reflected in the Project Design	22
IV. IMPLEMENTATION	23
A. Institutional and Implementation Arrangements	23
B. Results Monitoring and Evaluation	24
C. Sustainability	25
D. Role of Partners	25
V. KEY RISKS	25
A. Overall Risk Rating and Explanation of Key Risks	25
VI. APPRAISAL SUMMARY	27
A. Economic and Financial Analysis	27
B. Technical	27
C. Financial Management	29
D. Procurement	30
E. Social (including Safeguards)	31
F. Environment (including Safeguards)	31
G. World Bank Grievance Redress	32



VII. RESULTS FRAMEWORK AND MONITORING	33
ANNEX 1: IMPLEMENTATION ARRANGEMENTS.....	44
ANNEX 2: PROJECT FIDUCIARY ARRANGEMENTS.....	52
ANNEX 3: DETAILED PROJECT DESCRIPTION.....	63
ANNEX 4: RESULTS FROM PRODUCTIVE ALLIANCE PROGRAMS IN LATIN AMERICA.....	79
ANNEX 5: ACCESS TO AGRICULTURAL FINANCE IN MALAWI.....	81
ANNEX 6: PROJECT’S CONTRIBUTION TO CLOSING GENDER GAPS.....	85
ANNEX 7: TRADE AND COMPETITIVENESS ADVISORY PROJECTS IN MALAWI	87
ANNEX 8: AGRICULTURAL RISKS, CLIMATE-SMART AGRICULTURE AND RESILIENCE	89
ANNEX 9: ECONOMIC AND FINANCIAL ANALYSIS.....	91
ANNEX 10. GREENHOUSE GAS ACCOUNTING ANALYSIS: ESTIMATING THE NET CARBON BALANCE WITH EX-ACT	104
ANNEX 11. AGRI-SPATIAL SOLUTION – A TOOL TO SUPPORT AGRIBUSINESS DEVELOPMENT AND COMPETITIVENESS.....	106
ANNEX 12: OPPORTUNITIES AND MARKET UPTAKE	109



I. STRATEGIC CONTEXT

A. Country Context

1. With 200 persons/km² and a population of 16.8 million, Malawi (a landlocked country bordering Tanzania, Zambia, and Mozambique) is one of Southern Africa's most densely populated countries, and its population is projected to reach 20 million by 2025. The great majority of Malawians live in rural areas (85 percent) and pursue small-scale, rainfed agriculture. The high level of subsistence farming is a key factor in Malawi's persistent poverty: absolute poverty nationwide declined only marginally between 2005 and 2011, from 52.4 percent to 50.7 percent,¹ masking a widening gap between urban areas (where poverty fell from 25.4 percent to 17.3 percent) and rural areas (where poverty rose from 55.9 percent to 56.6 percent).² Malawi ranks 173 of 188 countries in the 2014 Human Development Index.

2. Episodic and volatile growth has had little effect on poverty outcomes. In 2015, GDP per capita stood at US\$493.7.³ Over 2006–10, real GDP grew at 7 percent per year on average but slowed to 1.9 percent in 2012 because of persistent external imbalances, compounded by reduced donor inflows, fuel shortages, and low tobacco proceeds. Official Development Assistance budget support to Malawi was suspended in October 2013 owing to irregularities in public financial management. GDP growth was 2.8 percent in 2015 compared to 5.7 percent in 2014, after floods in the south and a countrywide drought caused agricultural setbacks. The uncertain macroeconomic outlook and strengthening US dollar caused the Malawi kwacha (MK) to depreciate by more than 30 percent in the second half of 2015. Inflation has neared or exceeded 20 percent for four straight years.

B. Sectoral and Institutional Context

3. In 2015, agriculture accounted for 30 percent of Malawi's GDP as well as 80 percent of export earnings.⁴ Between 2005–11 also, over 80 percent of Malawi's exports were agricultural commodities, primarily tobacco (about 60 percent of all exports), sugar, and tea.⁵ Agriculture employs 64.1 percent of the workforce,⁶ which consists mainly of subsistence farmers. Agriculture also contributes significantly to national and household food security and nutrition.⁷ In this regard, the Malawi Demographic and Health Survey (2016) reveals worrying rates of stunting (37 percent), underweight (12 percent), and wasting (3 percent). The Malawi National Nutrition Policy (2016–20) takes linkages among key sectors, including agriculture, into account for addressing nutrition problems.

4. Malawi's small farms operate alongside large agricultural estates and a growing number of medium-scale farms. Smallholders account for 80 percent of agricultural production and 70 percent of agricultural GDP.⁸ More than 99 percent of households engage in small and medium-scale production of food crops (maize, rice, legumes)

¹ GoM, 3rd Integrated Household Survey 2010–11, household socio-economic characteristics report (August 2012).

² However, IFPRI recently recalculated poverty lines to reflect changing consumption patterns and regional differences, finding that poverty fell by 8.5 percent in rural areas and 2.8 percent in urban areas, for an overall reduction of 8.4 percent.

³ World Development Indicators, GDP per capita (constant 2010 US\$).

⁴ 2013 Malawi Labour Force Survey.

⁵ 2015 Annual Economic Report.

⁶ 2013 Malawi Labour Force Survey.

⁷ Draft National Agriculture Policy (2016).

⁸ World Bank Support to Agriculture Strategy in Malawi.



as well as cash crops (tea, tobacco, sugarcane, coffee) on 6.5 million hectares—about 85 percent of cultivated area. Less than 1 percent of households (30,000 households) produce cash crops such as tobacco and tea on large estates covering 1.2 million hectares (15 percent of cultivated area). Estates contribute 20 percent of the agricultural production in Malawi. A pressing challenge is that 90 percent of estate land titles in Malawi have expired.⁹ The Ministry of Lands, Housing, and Urban Development (MoLHUD) is attempting to release valuable but underused estate land for new commercial agricultural investment and productive uses. Medium-scale holdings grew by 49.1 percent over 2005–15 to occupy more than 10 percent of cultivated area¹⁰ and contribute an increased share of marketed surplus. This expansion is remarkable in a context of acute land scarcity, where household poverty is highly correlated with small farm size. Medium-scale farmers tend to live in urban areas; they are often educated, current or former government employees who acquired land with non-farm income. They cultivate only 40 percent of their land, whereas smallholders (with 0–5 hectares) use almost 100 percent.

5. Agriculture production generally cannot meet growing demand from domestic and export markets. Yields of maize (the dominant crop in terms of area and food security) and oilseeds, for example, can be half as much as potential yields.¹¹ Productivity is low, especially for smallholders, due to constraints that range from weather variations (floods and dry spells), limited use of improved agricultural technologies, inputs, and practices, as well as poor access to credit and markets. The scarcity of land and fragmentation of holdings compound these problems. The availability of water is another concern. Malawi has a single agricultural cycle, dictated by rainfall patterns where irrigation is not available. Only 4 percent of cropland (104,000 ha) was irrigated in 2014. About 56,600 (3.3 percent) of smallholders have access to irrigation, which is central to food and nutrition security, incomes, and poverty reduction. Irrigation agriculture contributes 7–12 percent of agricultural GDP and 2–4 percent to the economy as a whole.¹²

6. Growing domestic demand has catalyzed the production of horticultural crops and increased prospects to substitute for imports. Even so, agricultural commercialization, especially in rural areas, is hampered by inadequate marketing infrastructure, limited access to marketing services, poor service provision, and inconsistencies in policy. Only 18 percent of the nation's 4.2 million smallholders belong to a functional farmer organization.¹³ National strategies recognize the need to support agricultural growth and commercialization through market liberalization, development of rural marketing infrastructure and agricultural market information systems, agro-processing and value added, and the establishment of commodity exchanges. These strategies include the second Malawi Growth and Development Strategy (MGDS) (2011–16), the National Export Strategy (2013–18) (focusing on oilseeds, sugarcane, and manufactured products), the Agriculture Sector-Wide Approach (ASWAp) (2011–16), and National Agricultural Policy (2016). A Contract Farming Strategy aims to create the enabling environment for efficient, competitive, and fair contract farming.

7. Private sector investments and opportunities for structured trade are increasing, albeit slowly, and include options to use commodity exchanges, a network of certified warehouses, and a warehouse receipt system. Tobacco, sugar, and tea still dominate national exports, which move through the ports of Dar es Salaam (Tanzania), Nacala and Beira (Mozambique), and Durban (South Africa, is still Malawi's largest trading partner).

⁹ Multi Use Satellite Imagery for Agriculture and Land Management Applications in Malawi.

¹⁰ Anseeuw et al. (2015).

¹¹ National Agricultural Policy (2016). Average maize yields are 3–8 metric tons per hectare (t/ha) compared to potential yields of 5–10 t/ha; oilseed yields are approximately 1 t/ha versus potential yields of 2 t/ha.

¹² Malawi Irrigation Master Plan and Investment Framework (2015).

¹³ MoAIWD.



Trade in agricultural commodities is dominated by a very small number of large firms that transport commodities by road. The cost of trade is high, owing to high tariffs, non-tariff barriers, regulatory costs, border challenges, and high transportation costs.

8. A weak investment, business, and regulatory climate inhibits development of agricultural enterprises and value addition. Limited public and private investments in transport, storage, electricity, financial products, and quality standards reduce agricultural efficiency and competitiveness in local and international markets. Poor access to finance is the top obstacle for businesses. The financial sector is small and focuses on a narrow range of products. Interest rates remain very high—around 40 percent per year for commercial banks and 50–80 percent per year in the microfinance and informal banking systems. Enterprise surveys also reveal that few firms have a line of credit and use banks to finance investments. The national electrification rate is less than 10 percent (2 percent in rural areas).

9. Recognizing that access to land and secure land tenure encourage investment and the development of commercial agriculture, Malawi passed new land legislation and reviewed related legislation to improve tenure security.¹⁴ The new laws address land access and equity issues and allow for the registration of customary land that is important for agriculture—around 15 percent of the land in Malawi is either privately or publicly held, whereas around 85 percent is held under customary arrangements.¹⁵ Malawi is also a signatory to the Voluntary Guidelines on the Responsible Governance of Tenure (VGGT) and the Principles for Responsible Investment in Agriculture and Food Systems (RIA).

10. Gender and youth issues present significant challenges for agricultural growth and agribusiness. Malawi ranks 67 of 144 countries in the 2016 Global Gender Gap Index of the World Economic Forum, yet significant and costly gender gaps remain in agriculture. The gross value of output per hectare from plots managed by women is 25 percent less than from plots managed by men—a difference that adds up to US\$100 million¹⁶ annually. Youth unemployment (15 percent in 2011) exceeds unemployment for the rest of the population, and young people, particularly those in rural areas, have few prospects and skills to secure a job or engage in entrepreneurship.

11. Other concerns arise from the changing and more variable climate patterns, marked in Malawi by later onset or cessation of rains, a longer dry season, and a shorter growing season. Climate-related production risks are a serious concern for stakeholders, investments, and overall development in the agricultural sector. The National Resilience Master Plan focuses on developing new irrigation schemes, diversifying agricultural production, promoting the integration of smallholder farmers into agricultural value chains, and promoting small-scale agro-processing. Climate-smart agriculture (CSA) practices are a priority investment area in the National Climate Change Investment Plan. An agricultural risk management strategy is expected to come into effect later in 2017.

¹⁴ Four bills (related to land, physical planning, land surveys, and customary Acts) were passed by the Parliament and assented to by the president in 2016. Six bills (related to registered land, land acquisition, forest land, local government, public roads, and Malawi housing) were passed in late 2016 and assented to by the president in early 2017.

¹⁵ USAID, 2010. "USAID Country Profile, Property Rights and Resource Governance Malawi." Available at http://www.usaidlandtenure.net/sites/default/files/country-profiles/full-reports/USAID_Land_Tenure_Malawi_Profile.pdf.

¹⁶ See Annex 6.



C. Higher Level Objectives to which the Project Contributes

12. The proposed Malawi Agricultural Commercialization Project (AGCOM) is integral to achieving Outcomes 1.2 (“promoting a supportive environment that will enhance inclusive private sector growth and competitiveness”) and 1.3 (“increased productivity and commercialization of agriculture and sustainable management of water resources for multiple uses”) of Thematic Area 1 (“promoting sustainable, diversified, and inclusive growth”) of the Malawi Country Assistance Strategy (CAS) Report No: 74159-MW (2013–16) extended to 2017 through the Performance and Learning Review (PLR) Report No. 95178-MW dated March 25, 2015. AGCOM also aligns with the MDGS II theme of Sustainable Economic Growth by contributing to the achievement of agricultural growth targets, which are critical for maintaining strong GDP growth. MDGS II emphasizes enhanced provision of extension services, improved livestock and fisheries productivity, more diversified agricultural production for domestic and export markets, greater dietary diversity, improved functioning of agricultural markets, increased national food storage capacity, and reduced postharvest losses. Activities under the proposed project will also contribute to National Agriculture Policy outcomes—increased agricultural production, productivity, diversification, and marketed surplus; increased use of irrigation and mechanization; increased agro-processing and value addition; increased access by producers and consumers to well-functioning markets; and increased engagement by women, youth, and vulnerable groups in agricultural policy, processes, and programs. Project activities also directly address the National Export Strategy’s priority areas for developing Malawi’s productive base of farm and agribusiness products to foster export competitiveness and economic empowerment. AGCOM also reflects development policies articulated in the ASWAp (particularly in commercial agriculture, value addition, and processing), as well as other policies/strategies to promote commercialization, such as the Industrialization Strategy, Best Buy Malawi Strategy, National G8 Alliance on Food and Nutrition Security, and the National Land Policy. Finally, aside from supporting the national goal of attaining gender balance in all sectors and programs, the project contributes to the higher-level objectives of poverty reduction and improved resilience of production.

13. The proposed project is part of a multipronged effort by the World Bank Group to help Malawi break the cycle of vulnerability unleashed by two years of drought induced by El Niño and a severe food security crisis. The resulting package of investment and development policy financing operations balances short-term emergency recovery efforts with longer-term investments and policy reforms to boost private investment in diversified agriculture. To that end, AGCOM was prepared in close alignment with an Agricultural Support and Fiscal Management Development Policy Operation (DPO) to catalyze investment financing by addressing binding policy constraints that have amplified Malawi’s vulnerability to climate-induced shocks. AGCOM was also developed in close synergy with the Bank’s prospective Shire Valley Irrigation Transformation Project, a big-growth-pole project supporting large-scale, intensive, and inclusive development of irrigated commercial agriculture in southern Malawi (Chikwawa and Nsanje Districts). The productivity and commercialization goals of that project align closely with those of AGCOM and, if successful, will go a long way in contributing to a sustained supply of marketable products for domestic and export markets.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

14. The Project Development Objective (PDO) is to increase commercialization of agriculture value chain products selected under the project. The PDO refers explicitly to *value chain products selected under the project*



because the value chains to be supported, are not determined in advance; AGCOM is purposely designed to allow the market to decide which value chains and buyers have strong prospective commercial linkages. This approach prevents the project from confining its impact at the outset to a small number of producers in particular value chains. *Agricultural value chain products* are products of farms and agribusinesses, including crop, livestock, and fisheries products sold domestically or exported, with or without processing, depending on market requirements. *Commercialization* refers to the proportion of marketed production from targeted farms and the proportion of marketed agribusiness products from the selected value chains.

B. Project Beneficiaries

15. The beneficiaries are various value chain actors, including producers (farmers and farmer producer organizations), buyers (processors, retailers, exporters, and aggregators), and Financial Institutions that will be lending to the agribusiness sector in the country. The project will ensure that youth and women are well represented in its interventions. The project will have national coverage.

C. PDO-level Results Indicators

16. The following indicators will measure progress toward the PDO (detailed descriptions in Annex 1):
- 1) Increase in yield of selected commodities by producer organizations participating in productive alliances (crops, livestock, and fisheries, etc.)
 - 2) Selected agricultural value chain products linked to markets
 - Producer groups that meet market specifications defined by off-takers (% of members women)
 - 3) Increased value of gross sales by producer groups for products of agricultural value chains supported by the project

III. PROJECT DESCRIPTION

A. Project Components

17. The project has four components: (1) Building Productive Alliances, (2) Support Investment Enabling Services, (3) Contingency Emergency Response Component, and (4) Project Coordination and Management.

COMPONENT 1: BUILDING PRODUCTIVE ALLIANCES – SDR 45.7 MILLION (US\$62 MILLION)

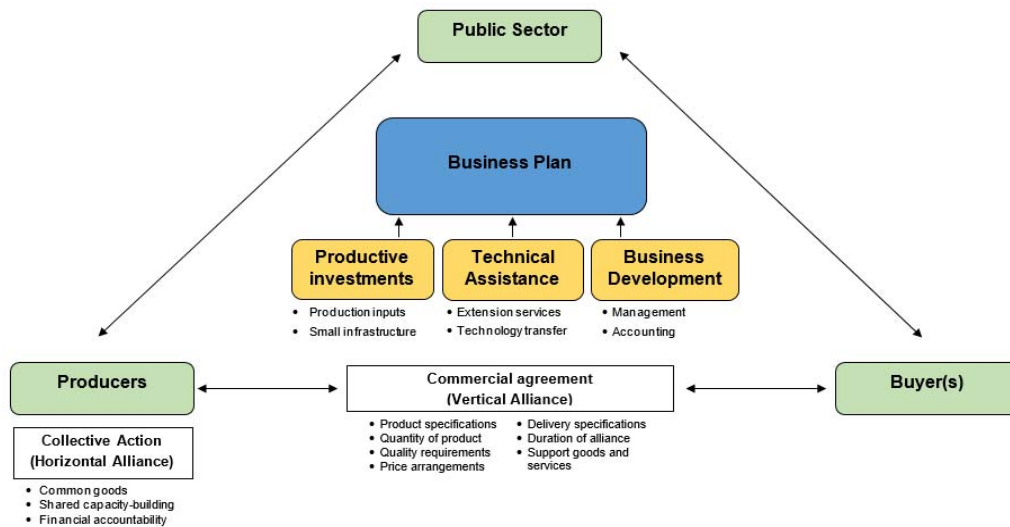
18. This component supports the integration of small-scale and emerging farmers (defined as farmers cultivating not more than 8 ha) into value chains by improving their capacity to finance and execute productivity-enhancing investments and respond to the requirements of end-markets and buyers (off-takers). To that end, the project will implement the high-impact Productive Alliances (PAs) approach described in Annex 3. A PA is based on a commercial agreement between a project-supported producer organization and a commercial off-taker. The project will seek to “match” organized and creditworthy anchor enterprises (off-takers) with aggregated groups of producers (including smallholder associations and producer cooperatives). Figure 1 depicts PA stakeholders. Project support to PAs will be complemented by last-mile infrastructure investments in targeted areas.

19. Component 1 will finance: (a) organization and capacity building of Producer Organizations (POs) and PAs (approximately US\$10 million); (b) matching grant investments in POs (approximately US\$30 million); (c) a Partial Credit Guarantee Fund (approximately US\$3 million); and (d) last-mile public good infrastructure to facilitate



operations by the selected POs and PAs (approximately US\$18 million). In this way, Component 1 addresses several constraints: inefficiencies along value chains caused by inadequate integration of actors, information asymmetries, and coordination failures among stakeholders; unreliable access to quality raw material; poor rural access roads connecting producers to markets; and limited access to finance in agricultural value chains. Addressing these constraints through PAs has proven to increase incomes, productivity, and commercial viability; prospects for generating employment; and the integration of youth and women (Annex 4).

Figure 1: Stakeholders in Productive Alliances



Subcomponent 1.1: Horizontal Alliances (PO Formation, US\$10.3 million)

20. A key output of this subcomponent is the formation of formal POs that effectively enter PAs. The project will give special attention to forming POs among women and youth. Successive **communication and dissemination campaigns** will inform potential stakeholders about the scope and rules of AGCOM through local workshops and mass media campaigns in English and the principal local languages in each project region. The campaigns will accompany successive calls for proposals to form PAs and will help small producers, potential buyers, and providers of goods and services to learn about opportunities presented by the project, will clarify the rules of participation, and will ensure that applicants have realistic expectations. The project will give particular attention to reaching women and young people by disseminating information at weekly markets and broadcasting radio spots at times when these groups are more likely to be listening.

21. **Capacity-building** is the other critical element of this subcomponent. Interested groups of farmers that meet the criteria will be selected to form POs. Interested farmers who are already part of informal farmer groups and meet the criteria will be assisted to formalize their POs. The new POs will receive training and capacity building based on a needs assessment to identify gaps in assets and skills. The specific needs of women and youth for effective participation will also be assessed. Capacity building will include basic accounting and financial management, corporate governance, business plan management, leadership training for the management committee, and procurement. This assistance should help producers and their organizations to manage their businesses and improve their marketing skills in ways that enable them to enter effectively into PAs. Special training and assistance will also be provided to design, negotiate, manage, and execute PA business plans



(“subprojects”) to improve the probability of accessing matching grant funds provided through Subcomponent 1.2. The institution-strengthening techniques used with these local POs will be culturally appropriate.

Subcomponent 1.2: Productive Alliances (US\$33.3 million)

22. Under this subcomponent, matching grant financing, combined with technical assistance (TA) and credit, will enable POs and off-takers to form alliances. POs will receive TA to improve production and management of their organizations, matching grants for technical and infrastructure investments, and support to access commercial loans. The TA costs are fully financed by the project; inputs and other working capital will be financed by the POs and by financial institutions supported with a Partial Credit Guarantee (PCG) Fund. Matching grants will cover up to 70 percent of the investment costs. The rest will be self-financed through cash and/or in-kind contributions and the difference (if any) through financial institutions, which should be involved from the outset to gain deeper knowledge of the POs and appraise PA subprojects. Subprojects with external financing are strongly preferred, although it is not a prerequisite. An independent group will evaluate and select PA business plans for funding based on technical and financial feasibility, in line with terms and conditions detailed in the Project Implementation Manual (PIM). Business plans will identify key risks associated with each value chain, including risks related to weather and climate, and measures to mitigate those risks. The project will seek opportunities to support new income-generating value chains that are better adapted to climate risks, for instance through the adoption of climate-smart farming systems.

23. The government financial incentive for POs will be capped at US\$2,500 per producer household¹⁷, based on typical subproject costs and current per capita income in Malawi. The financial incentive will be used for investment expenditures, operational costs, TA, and certifications (the PIM will detail the incentive mechanism). Any partnership is expected to include at least 20 emerging farmer households, and at least 80 percent of those households need to meet the project’s definition of an “emerging poor farmer”—a market-oriented producer with the capacity to produce beyond subsistence, based on hectares under cultivation (or amount of livestock), total assets, and annual income where available. As noted, female- and youth-based POs will receive particular attention. The POs will be allowed to include a few medium-scale farmers as leaders/organizers, where appropriate, in line with best practice developed with PAs in Latin America. The objective is to have 300+ PA partnerships in operation by Year 5 and reach approximately 100,000 farmer households. For specific implementation arrangements for PAs see Annex 1; for guiding principles of this subcomponent, see Annex 3.

24. Some subprojects will need productive inputs (seed, fertilizer) that may require external financing if the POs lack funds. The PCG Fund (US\$3 million) will reduce risk for selected financial institutions in supporting new borrowers and commodities by providing guarantees for their loans to the project POs. A competitively selected third-party entity will manage the PCG on behalf of the Project Implementation Unit (PIU). PCG fees will be priced to cover the fund’s operating costs to ensure that it remains sustainable after the project ends. The guarantee will be offered on a first-come, first-served basis and cover up to 70 percent of the risk pari-passu for loans to smallholder borrowers, including project-supported POs. The guarantee will cover all administrative costs and risks involved. To ensure high use of the PCG, the project will provide tailored TA support to financial institutions, covering value-chain financing in general and specific technical areas such as risk analysis, product development and delivery, and coordination with other value-chain actors.

¹⁷ Each producer household is allowed to participate in one subproject over the life of the project.



25. Subcomponent 1.2 will have a special window focusing on youth POs and PAs. This window will also support Mhub Technology Innovation¹⁸ and similar business incubators to develop successful youth entrepreneurs through training, skill development, and mentoring in entrepreneurship, as well as by facilitating negotiations with industry (targeting agribusiness and horticultural value chains).

Subcomponent 1.3 Last-mile Infrastructure for Productive Alliances (US\$18.4 million)

26. Subcomponent 1.3 invests in last-mile public good infrastructure to enable the creation of more PAs. Although this subcomponent is designed to enable PAs, it will be managed separately from the direct investments in PAs provided through matching grants. Support will focus on infrastructure that has a prohibitively high cost for PAs but yields benefits that extend beyond project PAs to reach surrounding rural communities. The infrastructure investments will enable otherwise unfeasible PAs to become sustainable and profitable, and they will help POs to manage risk, especially related to drought, and hence reduce the vulnerability of participating farmers. Activities supported through this subcomponent include: (a) developing/rehabilitating small-scale irrigation infrastructure benefiting POs in PAs to accelerate the diversification, intensification, and commercialization of agricultural production; (b) constructing/rehabilitating feeder roads to improve access to agricultural areas; (c) improving access to electricity in project areas; and (d) providing access to clean water for value addition where required.

27. The project will **assess the feasibility of last-mile infrastructure interventions**, clearly presenting evidence justifying the public investment (market failure, for instance) and specifying how it will be sustained. Investment proposals will include a detailed plan indicating how the facilities and equipment will be operated, managed, and maintained. To further ensure the sustainability of this infrastructure, the project will consider: (a) engaging beneficiaries in determining what infrastructure is needed and forming community maintenance clubs; (b) monitoring the quality of the investments through the PIU and required TA; and (c) working with the government and other key stakeholders to establish the maintenance strategy for the infrastructure. The project will enter active agreements with POs and the government to ensure that the infrastructure is of good quality, meets the intended objectives with a sustainable operating and maintenance plan.

28. The **small-scale irrigation infrastructure** will be a strong enabler of highly productive POs and PAs. The Project will rehabilitate small-scale irrigation systems, do spot improvement works and provide small pumps or develop new small-scale systems and drainage structures to benefit PAs. Schemes will be selected based on several criteria, including: (a) the investment and associated activities have a business orientation; (b) readiness for investment; (c) stakeholder interest and commitment; (d) proximity to market and/or potential to enter into a PA; (e) technical, environmental, and social sustainability; and (f) economic rate of return (ERR). Support will include strengthening farmers' capacity to incorporate climate risks.

29. **Last-mile rural feeder roads** will strengthen producers' links to clients. Interventions will include small-scale rehabilitation and spot improvement works for short links, including drainage structures. The PIU will implement this activity in close liaison with the Ministry of Transport and Public Works and the Ministry of Local Government and Rural Development through District Councils. The detailed selection criteria will be developed in the PIM. The beneficiary PO will have primary responsibility for maintaining these infrastructures, and members will establish maintenance clubs together with rest of the community and be trained by the project.

¹⁸ mHub is Malawi's first ever technology hub. An incubator for technology startups with a special focus on building young technology entrepreneurs through training, skills development and mentorship.



30. Investments to improve **access to electricity** will be capped at US\$200,000 per subproject; the average investment is expected to be in the US\$10,000–20,000 range. These investments must fall under the predefined list of investment options disclosed beforehand in project safeguard documents. Investments will be selected based on their alignment with existing PAs and their ERR, as well as other criteria, procurement arrangements, and monitoring and evaluation (M&E) requirements detailed in the PIM. For POs constrained by a lack of electricity, the project will finance step-down transformers and low-voltage extension lines to cover no more than 3 kilometers and cost no more than US\$20,000, *and only if all other alternatives have been exhausted*. The project will also investigate off-grid-solutions that serve the same purpose.

31. Investments to improve **access to water** for POs and PAs will focus on connecting processing facilities to sources of potable water. If such a connection is not feasible, this subcomponent will support the provision of a borehole and all other connecting accessories such as submersible pumps, solar panels, and tanks. The project will carry out an Environmental and Social Impact Assessment (ESIA) and develop an Environmental and Social Management Plan (ESMP) for the site. This activity will be implemented by the PIU for selected beneficiaries in close liaison with the Department of Water and the Department of Environmental Affairs.

COMPONENT 2: SUPPORT INVESTMENT ENABLING SERVICES – SDR 17.0 MILLION (US\$23 MILLION)

32. Whereas Component 1 helps to organize POs, develop PAs, and advance access to markets (especially for mature PAs), Component 2 supports improvements in the investment and trade environment that will both deepen and sustain market linkages and improve financing for PAs and POs. By promoting dialogue between the government and private sector, this component supports interaction on subjects leading to the formation of PAs (contracts and enforcement) and improved access to markets (trade facilitation, regulatory inefficiencies, improved agribusiness product standards, and certification for PAs). Component 2 will also pilot some of the new land laws, which contain provisions for more secure land tenure, with PAs and POs.

Subcomponent 2.1: Access to Agricultural Financing (US\$7.3 million)

33. Warehouse receipt financing (described in Annex 5) has been growing in Malawi, but commercial banks still have limited capacity to deal with agricultural commodities and manage warehouse receipts. Participating banks generally limit the risk of handling and storing agricultural commodities by charging higher interest rates, which deter farmers from taking advantage of warehouse receipt financing. Smallholders also generally lack capacity to participate in the system.

34. To strengthen the credibility of the warehouse receipt system, Subcomponent 2.1 will finance TA to assess the critical challenges of the current system, examine international experience, and identify concrete engagement models to encourage farmers as well as small and medium enterprises (SMEs) to use warehouses to improve incomes and financing. For example, international experience indicates that insurance and/or an indemnity fund are useful for protecting the value of stored commodities from various risks, including losses in quality and quantity. Because most warehouses are concentrated in major cities owing to the perceived risks in investing in rural warehouses, the TA will also explore strategies for increasing farmers' and SMEs' access to warehouses in rural areas. Key considerations include the development of (a) an appropriate incentive structure to enhance trust among the various players, (b) a common mechanism to cover commodity exchanges in Malawi, and (c) a mechanism to ensure sustainability beyond the life of the proposed project. Based on the assessment, the project will implement the solutions identified by consensus among stakeholders.



Subcomponent 2.2: Access to Land for Commercial Agriculture (US\$7.3 million)

35. This subcomponent supports the policy and regulatory environment for increasing access to land and tenure security for commercially oriented smallholder and commercial farmers, and other actors in agricultural value chains. Under this subcomponent, the project will pilot aspects of the new land laws—including Customary Land (2016), Registered Land (2017), and Acquisition of Land (2017)—and other international land principles. This activity sets the pace for the project’s production and investment activities, because farmers receiving matching grants must have secure land tenure to access finance. Specifically, this subcomponent supports TA to strengthen the capacity of stakeholders—MoLHUD, Ministry of Industry, Trade, and Tourism (MoITT), Malawi Investment and Trade Centre (MITC), Ministry of Agriculture, Irrigation, and Water Development (MoAIWD), and private institutions—to implement the new land laws within the context of PAs. The VGGT and RIA principles will be duly integrated into this capacity building. In line with the new laws, the project will work closely with MoLHUD to register plots and provide titles to the respective POs, covering the costs of all procedures required to ensure that this happens. The project will give particular attention to protecting and strengthening land rights for women and youth. In addition, this subcomponent will support MITC in its mandate to make land available for commercial investments in agriculture, in line with the new land laws. MITC will be connected to the Land Information and Management System. MoLHUD is conducting a study of estates that may identify land for possible reallocation. The project will strengthen multisectoral linkages and operationalization of the Land Information and Management System by providing TA and equipment to MITC and MoLHUD.

Subcomponent 2.3: Support for Business Enabling Services (US\$8.4 million)

36. Subcomponent 2.3 supports improvements in the regulatory environment to facilitate agribusiness and the commercialization of agriculture, focusing on public-private dialogue (PPD) and on standards and certification. Because trade facilitation is also vital to the commercialization of agriculture, it is addressed under a separate IFC advisory project that complements this work.

37. Key challenges to successful PPD are ineffective representation of micro, small, and informal enterprises and inadequate capacity to research, analyze, and frame issues to make a compelling case for reform. With those considerations in mind, this subcomponent will support the economy-wide PPD Forum¹⁹ and create an agribusiness-specific taskforce to address issues of commercialization, prioritize key challenges, and identify international good practice that can be adapted to the Malawian context. The Trade and Industry Sector Wide Approach (TIP-SWAp) and ASWAp technical working groups (TWGs) will also be supported to improve dialogue on challenges related to the commercialization of agriculture, promote inter-ministerial coordination on key agribusiness issues, and support the implementation of reforms. The project will provide TA (through domestic and international experts) to analyze aspects of agribusiness identified by the PPD Forum and agribusiness taskforce, and it will provide funds to MoITT and MoAIWD to translate dialogue and analysis into reforms in agricultural production and agribusiness.

38. The Malawi Bureau of Standards (MBS) will receive support to improve its operations and regulations related to agribusiness standards and certification by introducing risk assessment, improved market surveillance, and incentives for agribusinesses to assume greater responsibility for compliance with standards and regulations; improving the efficiency of testing and certification; strengthening, coordinating, and improving the implementation of technical regulations in MBS and other ministries or agencies; and automating certification processes. MBS will also receive support to assist POs and PAs in obtaining various types of certifications for their

¹⁹ Previously supported under ASWAp-SP.



products and processes—for example, Sanitary and Phytosanitary (SPS) certification, GlobalGap, Rainforest Alliance, Halal certification, Fair Trade certification, and HACCP. At least three Malawian manufacturing firms with horizontal links to POs or organized farmers will be supported to obtain ISO certification. This work will be complemented by World Bank Group advisory services to recommend changes in policy and procedures as needed. Standards and certifications will be analyzed to determine if they pose different constraints for men and women, and restrictive standards and practices will be addressed.

39. This subcomponent also builds on activities by the Bank-funded Southern Africa Trade and Transport Facilitation Program (which supports investments to modernize trade systems in Malawi), as well as the IFC advisory project on Trade Facilitation. Activities will address low capacity in MoITT and MITC to promote and facilitate export-oriented PAs, remove cumbersome procedures that discourage agribusiness and trade in products that PAs will produce for domestic and export markets, simplify and modernize international trade practices affecting those products, and remove challenges to cross-border trade that complicate exports of those products. These activities will be implemented by MoITT. MoITT will receive TA to review legal, regulatory, and technical issues affecting the attractiveness of the investment climate in Malawi to domestic and foreign investors, especially agribusiness investors. This subcomponent will also build capacity in MITC and MoITT to identify agri-spatial solutions for removing barriers to the development of PAs (Annex 11), undertake market demand assessments, and assess the feasibility of commercial sites. The Project will also support MITC on initiatives to promote and facilitate trade and investments in Malawi.

COMPONENT 3: CONTINGENT EMERGENCY RESPONSE COMPONENT (US\$0 MILLION)

40. In accordance with OP/BP 10.00, this zero-budget component establishes a disaster recovery contingency fund that may be triggered in the event of an eligible natural or human-induced crisis or emergency that has had (or is likely to have) major adverse socio-economic impacts during the life of the project. If approved by the Bank, resources may be drawn from the unallocated expenditure category and/or the government may request the Bank to re-categorize and reallocate financing from other project components to cover emergency response and recovery costs. See details in Annex 3.

COMPONENT 4: PROJECT COORDINATION AND MANAGEMENT – SDR 7.4 MILLION (US\$10 MILLION)

41. This component finances the PIU, which—given the multisectoral nature of the proposed project, numerous stakeholders, and participation of multiple government ministries—will play a pivotal role in project coordination and management. The PIU will oversee the implementation of project activities, ensure sound fiduciary management of the project (both procurement and financial management), comply with World Bank fiduciary reporting requirements (including submission of a semi-annual project implementation progress report), carry out M&E, ensure compliance with social and environmental safeguards, and engage in communication and reporting. The PIU is also responsible for implementing calls for proposals and administering the matching grant program. Aside from supporting these functions, Component 4 finances research and analysis²⁰ to orient implementation, provide opportunities for learning, and develop a growing evidence base to inform future operations. Annex 1 provides details on implementation, including PIU activities and staffing.

CROSS-CUTTING ISSUES

42. The project mainstreams the cross-cutting issues of gender, nutrition, and CSA and resilience throughout its components. With regard to **gender**, the project will help close gaps in productivity and access to agricultural

²⁰ Research and analysis will review the value chain context, analyze emerging opportunities/constraints for SMEs, analyze market opportunities, and draw lessons from experiences.



inputs and services. It will also seek innovative ways to reduce women’s work burden (for instance, labor-saving technologies and childcare). Activities targeting women will be demand-driven and based on an analysis of women’s and men’s constraints and opportunities under each component. The project will ensure that both men and women are enabled and encouraged to participate in, and benefit from the actions it undertakes (see Annex 6). The results framework will include indicators to monitor outcomes of the gender actions and permit corrective actions to be taken. Project decision-making bodies at all levels will include women and men.

43. In line with the National Nutrition Plan, the project supports interventions contributing to **nutrition**, such as diversified crop and livestock production (including irrigated production); the identification, validation, and dissemination of nutrient-dense crop and livestock technologies; increased attention to storing and processing foods to retain their nutritional quality; and promoting awareness of nutrition issues at the household level.

44. The project will support CSA and resilience through climate-smart and environmentally friendly practices in the agri-food sector, with the primary objective of minimizing weather-related risks and strengthening the resilience of project investments. Support for POs will focus on sustainable intensification to increase yields and productivity, and on improving the resilience of producers and production practices. The adoption of practices such as conservation agriculture, agroforestry, and sustainable intensification will have mitigation co-benefits (reduced GHG emissions and improved soil carbon sequestration). The project will systematically ensure that all activities and investments include climate-smart and good environmental management practices, and that technical support and financial incentives provided by the project facilitate their wide adoption. Climate-smart practices to minimize production risks and enhance resilience will be part of the selection criteria applied to business plans under the matching grant program.

B. Project Cost and Financing

Project Components		Project Cost (US\$)	IDA Financing (US\$)
1	Building Productive Alliance	62.00	62.00
1.1	<i>Horizontal Alliances (PO Formation)</i>	<i>10.30</i>	<i>10.30</i>
1.2	<i>Productive Alliances</i>	<i>33.30</i>	<i>33.30</i>
1.3	<i>Last-mile Infrastructure for Productive Alliances</i>	<i>18.40</i>	<i>18.40</i>
2	Support Investment Enabling Services	23.00	23.00
2.1	<i>Access to Agricultural Financing</i>	<i>7.30</i>	<i>7.30</i>
2.2	<i>Access to Land for Commercial Agriculture</i>	<i>7.30</i>	<i>7.30</i>
2.3	<i>Support for Business Enabling Services</i>	<i>8.40</i>	<i>8.40</i>
3	Contingent Emergency Response Component	0.00	0.00
4	Project Coordination and Management	10.00	10.00
Total Project Costs		95.00	95.00
Physical Contingencies*		1.20	1.20
Price Contingencies*		1.80	1.80
Front End Fees		0.00	0.00

* Physical and price contingencies have been included in components costs.



C. Lessons Learned and Reflected in the Project Design

45. As noted, the design of AGCOM reflects priorities of the National Agriculture Policy, which aims to transform the agricultural sector to deliver substantial increases in agricultural production, productivity, and real farm incomes. The project also aligns with the National Export Strategy and draws on lessons from previous Bank-funded projects to maximize overall impact. The key lessons are outlined here:

- *Multisectoral and cross-sector programming requires intense coordination with respective line ministries, strong guidance from a multisectoral Project Steering Committee (PSC), and a well-resourced PIU.* The PIU must include the necessary skill sets and expertise to balance its role as project coordinator and provide oversight and resources for implementation on the ground. Relevant policy platforms already exist (sector reviews, technical working groups) to promote dialogue and coordination.
- *Experiences with irrigation in numerous Bank projects provide evidence of best practices for increasing smallholders' productivity and strengthening institutional capacity for long-term irrigation development.* One such practice, which the proposed project will take care to implement, is the development and strengthening of Water User Association (WUAs). Another lesson is that efforts to strengthen smallholders' productivity need to consider the key challenges of effective capacity in POs, limited extension and input supply services, and poor access to reliable markets. A coherent and coordinated approach is needed to tackle these challenges—not isolated, piecemeal interventions.
- *A key mechanism to increase producers' access to services and markets is to support farmer's groups, formal or informal.* Even so, supporting group-based initiatives is a complex effort, requiring a long-term commitment from group members and support services to maximize the likelihood that groups will be sustained. Groups are most successful when the socio-economic status of members is similar and when they have a sound business plan, strong market linkages, and strong management, along with consistent and continual technical support. Groups need to have a good vision and the capacity to sustain their operations. The proposed project will adopt practical lessons from other projects on facilitating women's access to and participation in farmer groups.
- *Improvements in the business environment are critical to facilitate effective commercialization and trade.* Malawi has enacted policy and legal reforms to strengthen the business environment, facilitate trade, promote agricultural exports, and improve access to finance; these efforts have improved its Doing Business ranking. Export promotion, trade facilitation, and PPD also lift barriers to effective business and trade. Improved rural infrastructure (such as roads) has also proven effective in removing barriers to markets for various commodities.
- *Cross-cutting issues require specific interventions with clear targets to gauge progress, because mainstreaming these issues in the project design may not ensure that they receive sufficient attention to contribute to a project's success.* Accompany the mainstreaming of critical cross-cutting issues (gender, youth, nutrition, CSA, and capacity development) with specific actions (for example, awareness and capacity building related to climate-smart technologies or dietary diversity; strategies to ensure female and youth participation), close attention, sufficient resources (including staffing), and rigorous monitoring.
- *Lessons on irrigation infrastructure derive mostly from the Irrigation Rural Livelihoods Agricultural Development Project (IRLADP) and relate to factors that foster sustainability.* Irrigation schemes are more likely to be sustainable if they are developed over the long term and benefit from: committed



farmer groups with strong leadership, a reliable permanent water source, access to markets, and skills to market the surplus. Key agreements must be recorded and shared with the beneficiaries and the project team. (In IRLADP, for instance, community sensitization and participatory agreements between districts and beneficiaries clarified expectations for both parties). Secure land tenure is critical for the sustainability of irrigation schemes. In some schemes, landowners and WUAs sign agreements in which they hand over customary rights during the irrigation season. This innovative approach seems to work well in most schemes. Simmering land tenure conflicts or landowners demanding some form of payment have also been reported, however, and as the agreements are not legally binding, these issues can cause problems if not well managed.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

46. **Project Implementation and Coordination:** MoAIWD will implement the proposed project in close collaboration with MoITT. An independent PIU will be established to oversee project implementation, monitor progress, and coordinate and account for the utilization of project funds. The PIU staff will comprise experienced, competitively recruited professionals, with expertise to effectively manage and follow up all work streams of the PAs. The PIU will be headed by a Project Coordinator and include the following key professionals: Procurement Specialist, Financial Management Specialist, M&E Specialist, Communication Specialist, Agribusiness Specialist, Trade Facilitation Specialist, Institutional Development Specialist, Irrigation/Civil Engineer, Resilience and CSA Specialist/Environmental Specialist, and Social Development Specialist. The PIU reports directly to the Principal Secretary (PS) of MoAIWD. Under the guidance of the PSC, the PIU will hire other required specialists or support staff to enable it to deliver adequately on Project Implementation.

47. A **Project Steering Committee (PSC)** will be established as the project's highest-level oversight body, responsible for providing general policy guidance and approving annual budget and work plans and progress reports, including audit reports. The PSC will meet semi-annually and will include representatives of MoAIWD, MoITT, MITC, MoLHUD, Ministry of Gender, Children, Disability and Social Welfare (MoGCDSW); Ministry of Youth, Sports and Culture (MoYSC) and Ministry of Finance, Economic Planning, and Development (MoFEPD) (all at the PS level or as delegated by the PS) as well as from Malawi Confederation of Chambers of Commerce and Industry (MCCCI) and Farmers Union of Malawi (FUM). The PS MoAIWD will chair the committee; the PS MoITT will be the co-chair. The Project Coordinator will serve as secretary to the PSC.

48. A **Project Technical Committee (PTC)** will be established just under the PSC to provide technical oversight of project implementation, review and recommend the project workplans and budget to the PSC, and carry out M&E of project activities. The PTC will include representatives of the project implementing agencies (the private sector, financial institutions, POs, implementing ministries and government departments, brokers, and PA service providers). It will be headed by the Director of Planning, MoAIWD and co-chaired by the Director Private Sector Development Division in MoITT. The PIU will function as the secretariat for both the PSC and the PTC.

49. Because the project takes a PA approach, it will involve a wide range of players (producers, off-takers, service brokers, TA and business services providers, independent evaluators, financial institutions, and so on), some of whom will be contracted as service providers. The PIU will facilitate the contracting of competent



individuals or entities (on a competitive basis) through memorandums of understanding (MOUs) that clearly specify their roles and responsibilities, to be detailed in the PIM. The project will also support investments in last-mile infrastructure to support PA business plans; an independent evaluation team will review the proposed investments. To improve dialogue and coordination, the proposed project will make use of existing policy dialogue forums (Joint Sector Reviews for agriculture and trade, TWGs, the PPD Forum). Annex 1 provides more detail on implementation arrangements, which will be fully described in the PIM.

B. Results Monitoring and Evaluation

50. The project will support the PIU to develop and implement a strong M&E system and framework to monitor progress toward the PDO and intermediate indicators. A full-time M&E Specialist will lead the results measurement exercises, with guidance from the World Bank team. The PDO indicators include key outcomes documenting the expected results with regard to increased production and sales revenue of POs, increased sales revenue of beneficiary SMEs, and share of commodities exported. These indicators are designed to capture the incremental changes related to the project among its direct beneficiaries. Intermediate indicators will track periodic progress toward the PDO. The M&E system will focus explicitly on disaggregating results by gender and age (youth) for key performance indicators wherever possible. Annex 1 includes the complete list of indicators for Components 1 and 2, the frequency of data collection for each, and the entity responsible for collecting the data. The M&E system will feature a Management Information System (MIS), spot checks, evaluations, and beneficiary assessments to gather accurate data on the indicators. The MIS will record all information related to project activities, including (a) basic information on POs, (b) details on business plans and PAs, (c) subproject information (such as physical and financial progress), (d) the financial management data from which Statements of Expenditure will be provided to the World Bank, and (e) project management information for the semi-annual progress reports.

51. The PIU will be responsible for the M&E system, including reporting on progress for key performance indicators in accordance with World Bank requirements. The system will draw upon consultants to accompany project implementation and provide information for the project's M&E plan, to be funded under Component 3. It is a priority to ensure that these consultants are well trained and supervised to ensure consistent data collection, particularly when facilitating participatory financial evaluations with PO members. The PIU, with World Bank support, will be responsible for periodically analyzing data on results as part of the project's communication strategy with key stakeholders, including POs, commercial actors, participating financial institutions, and others. In addition, the PIU will be responsible for supporting the baseline survey, midterm evaluation, and project impact evaluation. Citizen engagement will be measured through beneficiary assessments, which will include (a) focus groups and a participatory analysis methodology; (b) semi-structured interviews (sex-disaggregated data will be collected) with producer households, PO leaders, and buyers; and (c) life stories of producer household families. The relevance of project activities related to PAs, business development services, grants, and other elements of Component 1 will be assessed with regard to capacity, market access, productivity, and incomes. Further, the PPD Forum will be used for citizen engagement.

52. The preparation and design of the proposed project benefited from broad citizen engagement, including with a number of POs, the National Smallholder Farmers' Association of Malawi (NASFAM) and the Farmers' Union of Malawi. To ensure continued citizen engagement in the project, a full-time communications specialist will join the PIU, and a comprehensive communications strategy will be developed and implemented throughout the project to ensure proper coordination, dissemination, and stakeholder feedback.



C. Sustainability

53. **Building institutional capacity and ownership of project investments:** AGCOM will use a holistic and systematic approach with PAs to build capacity (leadership, organizational, managerial, financial, and technical skills) at various levels. These capacities will enhance the roles of PAs as service providers and thus improve their sustainability. An important part of the PA proposals financed by the project is a risk management strategy, which should also bolster the sustainability of the investments. Similarly, capacity building for POs, including their capacity to maintain audited financial records and effective governance structures, will ensure that best practices are embedded in project investments and support their sustainability. The project also specifically supports WUAs—the key institutions for managing, maintaining, and thus sustaining irrigation infrastructure. The matching grant approach, in which the project and beneficiaries jointly finance investments, will increase beneficiaries’ ownership of investments and accountability for sustaining them.

54. **Environmental sustainability:** Activities under AGCOM will be screened through an Environmental and Social Management Framework (ESMF) to ensure that interventions are environmentally sustainable. Particular activities, such as support to install solar water pumps or to adopt CSA practices, will also contribute positively to environmental sustainability, especially in regard to climate change.

D. Role of Partners

55. The project will be implemented with the International Finance Corporation (IFC) and other development partners. IFC will provide advisory services for agribusiness operations, particularly with respect to securing effective linkages between off-takers and POs. The World Bank and Government of Malawi will undertake joint implementation support missions on a bi-annual basis to provide guidance to project implementation teams.

V. KEY RISKS

A. Overall Risk Rating and Explanation of Key Risks

56. The overall risk of the proposed project is rated **High**. The main risks are listed in Table 1 below and explained in the paragraphs that follow.

Table 1: Key risks identified for the proposed project

Risk Category	Rating
1. Political and governance	Substantial
2. Macroeconomic	High
3. Sector strategies and policies	Substantial
4. Technical design of project or program	High
5. Institutional capacity for implementation and sustainability	Substantial
6. Fiduciary	High
7. Environment and social	Moderate
8. Stakeholders	Moderate
Overall	High



57. **Political and governance risks (Substantial):** Political economy relationships may slow reforms to promote commercialization, in particular for new entrants to be supported under the project. The 2019 presidential and parliamentary elections could inject uncertainty into the continuity of reforms. The project will put clear criteria into place to foster private sector support, as well as a grievance redress mechanisms and increased capacity of beneficiaries to demand accountability from project implementers.
58. **Macro-economic risks (High):** The weak macroeconomic environment (inflation, exchange rate instability, and continued depreciation) and high costs of borrowing have undermined private sector development. The project will mitigate the high cost of credit by creating opportunities for the private sector to obtain loans at interest rates lower than commercial rates. Other development partners²¹ are considering a similar endeavors.
59. **Sector strategies and policies (Substantial):** The elements of a national framework are in place to promote commercial agriculture,²² and now the key risk is that the policies and strategies will not be implemented. The 2016 land acts will be piloted by the project to ensure tenure security for Project beneficiaries and this also presents significant challenges. To mitigate that risk, the project will support efforts to develop a policy and legal framework for implementation.
60. **Technical design of the project (High):** The project is complex, involving the coordination of multiple stakeholders and solutions across various sectors, and potentially challenging to implement. This risk will be mitigated by ensuring that the project retains an independent PIU, uses qualified technical assistance, and focuses on attaining specific results, and takes advantage of wide consultation with stakeholders during preparation. Due to the complexity of the PCG, the following residual risks still exist: (a) a suitable PCG manager may not be identified; (b) the PCG may not be fully used by financial institutions; and (c) the PCG becomes financially unsustainable due to the large number of claims and payouts. In cases (a) and (b), the project may need to reallocate funds assigned to this component. If (c) should occur, the Government of Malawi may lose its contributions to the PCG. The project is designed for six years to allow better implementation of the investments over a realistic timeframe.
61. **Institutional capacity and sustainability (Substantial):** The capacity of Malawian institutions to implement the project is low, implying a risk of failure in coordinating the project, especially among (and between) sector ministries, state and non-state institutions, and private agribusinesses, and POs. This risk will be mitigated by establishing a dedicated, independent PIU to coordinate the project, guided by an inclusive PSC.
62. **Fiduciary (High):** The main risks relate to weak financial management, particularly within the public sector. To a certain extent this risk will be reduced by placing experts in financial management and procurement in the PIU, and by support for building capacity in fiduciary issues.
63. **Environmental and social (Moderate):** The environmental and social risks stem from the provision of infrastructure to support commercialization. The project will put all necessary safeguard policies in place and will include dedicated safeguard experts. The risk of adverse impacts on domestic agricultural production caused by weather will be mitigated by integrating CSA technologies within the production systems of the selected value chains and by providing support for irrigation infrastructure.

²¹ For instance, the European Investment Bank in conjunction with the European Union; see Annex 5.

²² Notably the National Agriculture Policy, National Export Strategy, Industrialization Policy, Best Buy Malawi Strategy, and ASWAp, although a number of ancillary policies, strategies, and legal frameworks are not aligned with those efforts or one another, some are not enacted, and others are under review.



64. **Stakeholders (Moderate):** Some stakeholders could oppose the project, and it may prove difficult to reach others (women and youth, for instance). The project will take the needs of men, women, and youth into account through consultation, including the creation of opportunities to generate feedback, promote accountability, and target actions to women and youth.

VI. APPRAISAL SUMMARY

A. Economic and Financial Analysis

65. A cash flow model was used to assess the efficiency of the project investment ex-ante. Annual cash flows are estimated as the difference between without-project and with-project net benefits for direct beneficiaries (as detailed in Annex 9). Efficiency indicators include economic net present value (ENPV) and the economic internal rate of return (EIRR), as well as the impact on farm productivity, household incomes, and employment. Based on information compiled during preparation, gross margins and representative farm models were developed for selected crop and livestock production systems in the project area.

66. Incremental net benefits are estimated for 80,000 small-scale producers to be integrated into value chains through enhanced productivity (Component 1). Investment enabling services (including access to finance) and project coordination and management (Components 2 and 4) are also necessary to achieve the net benefits captured in other components, so their costs are included in the analysis. Based on a 25-year net benefit analysis using a 5 percent discount rate, the project yields an ENPV of US\$372 million (MK268 billion) and has a benefit-cost ratio of 4.7. The EIRR is 51 percent. The payback period is 7 years. The undiscounted annual average net benefit from the project is US\$32 million, which is 0.5 percent of national GDP and 1.7 percent of agricultural GDP. Project interventions are assumed to lead to higher crop yields and gross margins while reducing the share of production consumed at home on market-oriented farms. Smallholder farmers are expected to increase home consumption of their production and avoid reducing their intake to save cash. Estimates for representative farms indicate that project interventions can increase annual farm income by 40–100 percent.

67. The planned investment project is expected to yield significant returns even when considering key risk factors such as adoption rates, crop prices, and project delays, particularly because additional potential net benefits have not yet been quantified. Going forward, several potential net benefits from the project could be added to this analysis, and current assumptions in the model could be verified by collecting more data. The main expected net benefits that cannot yet be quantified include postharvest infrastructure, feeder roads, nutrition, access to land for commercial agriculture, access to other business enabling services, and impacts on the carbon balance from changes in agricultural production.

B. Technical

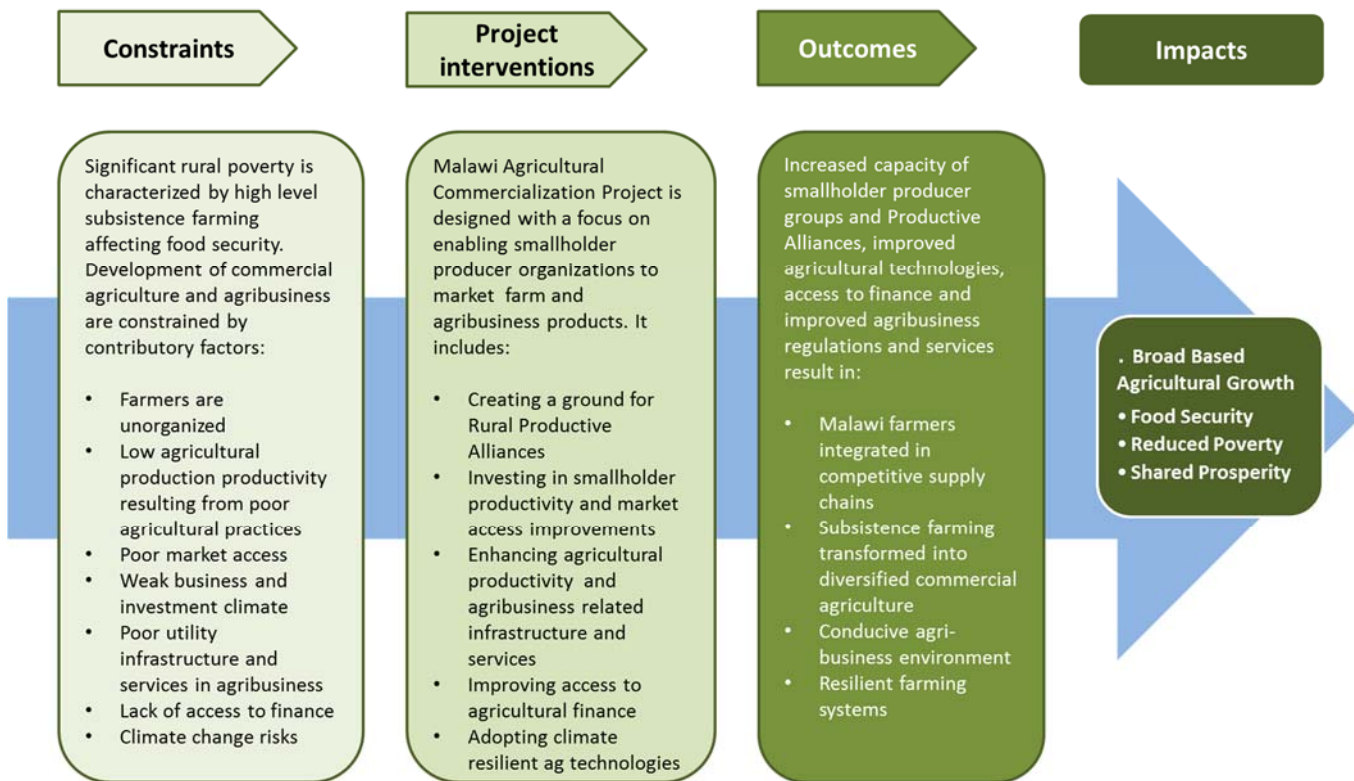
68. The project has a complex design, addressing a number of critical aspects of the agricultural commercialization agenda. The complexity stems partly from the number of activities envisioned, although none of the investment areas are, by themselves, technically complex in design or implementation. The challenge therefore lies in the implementation structure, including the coordination of activities and the capacity of the implementing agencies. The project has adopted an adequate approach and resources to address this challenge by hiring a service provider to build capacity.



69. The project addresses important challenges faced by small-scale and emerging producers (see Section IB) by using PAs to improve their productivity, develop their market linkages, and improve their integration with off-takers through the provision of infrastructure and services. By establishing the PCG Fund, the project will improve producers’ access to finance for investing in technologies that enhance production and productivity (including climate-smart technologies). The project will also create a conducive environment for producers and agribusinesses to participate in value chains. Through the implementation of this project, a high proportion of small scale subsistence producers are expected to enter commercial production and form part of competitive value chains. All of these results should contribute to broad-based agricultural growth, improve household and national food security, reduce poverty (especially for rural households), and improve shared prosperity. Figure 2 illustrates the Theory of Change for the proposed AGCOM Project.

70. The project features an appropriate combination of infrastructure and service provision. Irrigation infrastructure has proven effective in transforming rural livelihoods, and infrastructure for storage and value addition should support the project’s objective of agricultural commercialization. Infrastructure investments will be supported by investments in institutional capacity, including the formation of WUAs and POs and support for farmers to introduce higher-value crops on newly irrigated land. The on-farm and postharvest skills of POs will be strengthened so that smallholders can meet the demands of commercialization. Two other aspects of the project—ensuring that market linkages are formed and that the capacity of MoAIWD and MBS improves—are vital for achieving the government’s commercialization goals.

Figure 2: Theory of Change for the proposed project



71. Because agriculture has a pivotal role in addressing the cross-cutting issues of gender, nutrition, and CSA, the project contains specific activities related to each issue, with corresponding funding and implementation



arrangements. For example, it is envisaged that youth and women will be given preference in accessing competitive matching grants.

72. The project will constitute a net carbon sink. Preliminary analysis based on the Ex-Ante Carbon-balance Tool (EX-ACT) indicates that the project can constitute a sizeable net carbon sink of –224,634 tons of CO₂ equivalent (tCO₂e) over 20 years (–11,232 tCO₂e annually) owing to the introduction of improved crop management practices and CSA practices (Annex 10).²³

C. Financial Management

73. **The financial management (FM) assessment (undertaken at MoAIWD) revealed strengths and weaknesses:** MoAIWD's strengths are that it has adequate experience with Bank-financed projects, adequate budgeting arrangements, and has already developed an FM Manual for the ASWAp, which contains comprehensive accounting and financial procedures for proper management of project funds. That said, public FM processes are weak at the central and district level. Control weaknesses in the IFMIS at the central level led to massive theft of funds, and at the district level, project resources usually are not processed in the computerized IFMIS. As a result of weak internal controls, noncompliance with procedures was widespread and ineligible expenses were incurred. Weak remedies for noncompliance exacerbated the impact of weak internal controls. Weak audit committees rendered the internal audit function ineffective. Corruption and fraud deterrence mechanisms were lacking, and the fiduciary staff experienced high turnover.

74. **The Bank also conducted comprehensive FM reviews of the Agriculture Development Program Support Project (ADP-SP-P105256) and Agriculture Sector Wide Approach –Support Project (ASWAp SP-P148964) at the central and district level:** The major weaknesses are the lack of (or inadequate) supporting documentation for payments, duplicate payments, failure to follow procurement procedures, improper payment of allowances, delays in liquidation of advances, failure to properly account for fuel expenses, and failure to prepare back-to-office reports.

75. **The overall FM risk is High:** MoAIWD will be required to implement the agreed measures described below to address the fiduciary weaknesses identified during the FM assessment and comprehensive reviews to satisfy the Bank's minimum requirements under OP/BP 10.0. The measures will include FM arrangements that are capable of providing, with reasonable assurance, accurate and timely information on the financial status of the project required by the Bank.

76. **Mitigation measures recommended to be incorporated in the project design:** The major FM mitigation measure for the proposed project is use of the PIU, which will include qualified and experienced FM staff that will be responsible for the overall FM arrangements for the project, and which will be established at project effectiveness. The FM staff will be contracted at effectiveness (this measure is a condition for effectiveness). Other mitigation measures are also recommended: (a) the project will acquire and install an accounting package for processing project transactions and reporting; (b) the PIM will incorporate enhanced fiduciary controls, including eligibility and red flags; (c) the project will have exclusive U.S. dollar and Malawi kwacha bank accounts;

²³ These results should be interpreted with caution. The analysis needs to be updated with data on increased fertilizer and chemical consumption as well as changes in irrigated rice management as a result of the project. Note also that EX-ACT cannot account for the effects of increased transport arising from improved market access and increased competitiveness. Thus the net carbon balance could be underestimated.



(d) project regional offices will be set up to cater for district-based project activities (one regional office will cater for several districts); (e) the project will incorporate social accountability mechanisms, including public reporting and use of community volunteers and civil society organizations in social audits and disclosure of project information; (f) the project will incorporate corruption prevention and reporting mechanisms and will coordinate with the Anti-Corruption Bureau (ACB); (g) regular community awareness and capacity building will be undertaken on fiduciary and social accountability measures; (h) internal auditors will be designated for the project, preferably managed by the Central Internal Audit Unit, given the multisectoral nature of the project; and (i) terms of reference (ToRs) for the external audit will be agreed.

77. **Accounting and reporting:** The project will prepare an FM manual that outlines procedures to be followed when using project resources. The manual will include operations at the district and community level. As noted, the project will acquire and install accounting software. Reporting will be in the form of unaudited interim financial reports (IFRs) for calendar quarters, due 45 days after the end of each quarter.

78. **Internal controls and internal audit:** The FM manual will detail controls and procedures to be followed in using project funds. The project will need a strong internal audit function.

79. **Budgeting:** The PMU will consolidate the annual workplans and budgets submitted by various project components.

80. **Disbursement and funds flow:** The project will open a U.S. dollar Designated Account (DA) with the Reserve Bank of Malawi or commercial bank acceptable to IDA. Funds will flow from IDA to the DA. The project will also open a kwacha operating account with a commercial bank acceptable to IDA. If required the project may open, with the agreement of the World Bank, more accounts in districts where the project's regional offices are located. For kwacha expenses, funds will flow from the DA to the kwacha operating account. The disbursement method will be IFR based.

81. **Fraud and corruption:** Efforts to prevent fraud and corruption should start with enhanced social accountability mechanisms to increase public awareness of project activities. These mechanisms will require the involvement of community volunteers, civil society organizations, and other stakeholders, including the ACB. Governance and Anti-Corruption (GAC) interventions will form part of FM capacity building across all stakeholders, and GAC mechanisms will be incorporated into the FM social accountability structures. These social accountability mechanisms are part of the project design and assist in preventing or detecting corruption, reporting fraud, and whistle blowing.

82. **External auditing:** The audited annual financial statements will be prepared using the international public sector accounting standards that have already been adopted by the Institute of Chartered Accountants in Malawi. ToRs for the audit will be agreed with the World Bank. The audit will be done by the Auditor General or a private firm subcontracted by the Auditor General based on agreed ToRs.

D. Procurement

83. Procurement under the proposed project will be carried out in accordance with the World Bank Procurement Regulations for Investment Project Financing (IPF): Goods, Works, Non Consulting and Consulting Services dated July 1, 2016 and the provisions stipulated in the Financing Agreement and the Malawi Public



Procurement Act (No. 8 of 2003). As the project will be using IPF Regulations, the Government of Malawi has prepared the mandatory Project Procurement Strategy for Development (PPSD) which details how procurement in IPF operations support the development objectives of the project and deliver value for money. The IPF core procurement principles of value for money, economy, integrity, fit for purpose, efficiency, transparency, and fairness will be observed throughout the procurement process. MoAIWD will set up a PIU with fiduciary and other technical staff. A procurement assessment was undertaken to identify risks and mitigation measures were identified. Based on the assessment, the overall Project Procurement Risk is **Substantial**. The following risks have been identified under the project and mitigation measures have been proposed (see Annex 2).

E. Social (including Safeguards)

84. The scope of activities and potential scale of impacts for the proposed project and their impacts have been rated **Moderate** as the environmental and social impacts are not irreversible or unprecedented and can be mitigated and remedied. The project is not expected to have significant environmental and social impacts. The initial appraisal of the project indicates that the project activities would trigger the following environmental and social safeguards policies: Environmental Assessment (OP4.01), Pest Management (OP4.09), and Involuntary Resettlement (OP4.12). These policies are triggered by Subcomponents 1.3 and 2.1, which include rehabilitation and new construction of irrigation structures, market centers, storage facilities, facilities for agro-enterprises, and agro processing units. Social and environmental safeguards issues will be managed through the provisions and mitigation measures of the Project ESMF, Integrated Pest Management Plan (IPMP), and a Resettlement Policy Framework RPF). These safeguards instruments have been disclosed prior to project appraisal, on 16 March 2017.

85. The government has established a safeguard implementation unit, which spearheads the implementation of environmental and social safeguard measures. As of 2015, the Environmental Affairs Department (District Environmental Officers) has some technical expertise to prepare detailed environmental and social safeguard instruments. Government Environmental District Officers, District Environmental Inspectors, and District Lands Officers have been trained in environmental and social management issues. At the district level, a District Environmental Sub Committee coordinates natural resource management, including environmental and social safeguards at the local level.

F. Environment (including Safeguards)

86. The project is classified as **Category B** and will trigger Environmental Assessment (OP4.01) through the construction and rehabilitation of small scale irrigation systems and Pest Management (OP/BP4.09) owing to crop production activities. Environmental safeguard issues will be managed through the preparation and implementation of an ESMF and IPMP. As noted, the Government of Malawi has established an effective safeguard implementation unit, which spearheads implementation of environmental and social safeguard measures, and the Environmental Affairs Department has technical expertise to prepare detailed environmental and social management plans for site-specific subprojects. Malawi has good safeguards management capacity at the national and district levels, and the project will also strengthen specific institutions that will be involved in the monitoring of safeguards compliance, including the Department of Environmental Affairs and MBS.



G. World Bank Grievance Redress

87. Communities and individuals who believe that they are adversely affected by a World Bank–supported project may submit complaints to existing project-level grievance redress mechanisms or the World Bank’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project-affected communities and individuals may submit their complaint to the Bank’s independent Inspection Panel, which determines whether harm occurred, or could occur, as a result of World Bank non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank’s attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the GRS, see <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, see www.inspectionpanel.org.



VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

COUNTRY : Malawi

Malawi Agricultural Commercialization Project

Project Development Objectives

The Project Development Objective is to increase commercialization of agriculture value chain products selected under the project.

Project Development Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 1) Increase in Yield of commodities by supported Producer Organizations participating in Productive Alliance		Percentage	0.00	50.00	Annual	Records from Producer Organization and Project MIS	PIU
1.a Increase in Yield of crops by supported Producer Organizations participating in Productive Alliance (disaggregated by cereals, pulses and horticulture)		Percentage	0.00	50.00	Annual	Records from Producer Organization and Project MIS	PIU



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
1.b Increase in Yield of livestock products (milk, meat, eggs) by supported Producer Organizations participating in Productive Alliance		Percentage	0.00	50.00	Annual	Records from Producer Organization and Project MIS	PIU
1.c Increase in Yield of fishery products by supported Producer Organizations participating in Productive Alliance		Percentage	0.00	50.00	Semi-Annually	Records from POs	PIU
<p>Description: This indicator tracks the increase in production of commodities produced by the members of the productive alliances. If a PO switches to a new commodity when entering the alliance, the increase in yield will be benchmarked against the national average of that specific commodity.</p>							
Name: 2) Producer groups that meet market specifications defined by off-takers		Number	0.00	300.00	Semi-Annual	Records of Producer Organizations	PIU
2.a Proportion of women based producer organization that meet market specification defined by off-takers		Percentage	0.00	50.00	Semi Annually	Records from Producer Organization	PIU
2.c Producer groups that		Number	0.00	180.00	Annaul	Records from Producer	PIU



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
sustainably meet market specifications defined by off-takers for at least two years.						Organization and Project MIS	
2.b Proportion of youth based producer organizations that meet market specifications defined by off-takers.		Number	0.00	50.00	Semi Annual	Records from Producer Organization and Project MIS	PIU
<p>Description: This indicator tracks the number of POs that meet agreed meeting market specifications according to contract requirements over the period of at least one year in the the life of the project. By meeting agreements, POs will able to access to high value markets through off takers. The total number of members in producer groups is sex-disaggregated.</p>							
Name: 3. Value of gross sales from agriculture value chain products supported by the Project		Amount(USD)	0.00	85000000.00	Quarterly	Sales records from Producer Organizations and other value chain actors	PIU
<p>Description: This indicator tracks the gross sales from Producer Organization supported in the PAs as a well as sales from other value chain actors supported by the Project.</p>							



Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 4. Productive alliances established		Number	0.00	200.00	Semi -annual	Project MIS	PIU
<p>Description: This indicator tracks number of productive alliance (PA) established by the project. A PA is a commercial agreement between a project supported producer organization and a commercial off-taker. A producer organization is a formal organization of a group of smallholder farmers.</p>							
Name: 5. Number of subprojects financed with matching grants.		Number	0.00	250.00	Semi- Annual	Project MIS	PIU
5.a Number of Youth based PO accessing the matching grants		Number	0.00	30.00	Semi-Annual	Project MIS	PIU
<p>Description: This indicator tracks number of business plans of PAs financed through matching grants</p>							
Name: 6. Buyers who fulfill their obligations under the commercialization agreement or business plan of PA		Number	0.00	100.00	Semi-Annual	Project MIS	PIU
<p>Description: This indicator tracks number of buyers who meet the terms described in the commercialization agreement or business plan</p>							



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
Name: 7. Number of loans from Financial Institutions supported by the partial credit guarantee fund (PCGF)		Number	0.00	150.00	Semi- Annual	Reserve Bank of Malawi	PIU
7.a Value of loans disbursed by FIs with support of the partial credit guarantee fund		Amount(US D)	0.00	12000000.00	Semi- Annually	FI& Reserve Bank of Malawi	PIU
Description: This indicator tracks new loans processed supported by Financial Institutions under the PCGF.							
Name: 8. Number of last mile infrastructure subprojects implemented		Number	0.00	50.00	Semi-Annual	Project MIS	PIU
Description:							
Name: 9. Number of agricultural actors that receive FI loans by using warehouse receipt		Number	0.00	60.00	Semi-Annual	Records from Commodity Exchanges and Project MIS	PIU
9.a Proportion of women members of PO that receive FI loans by using warehouse receipt		Percentage	0.00	40.00	Semi-Annual	Records from ACE and AXHL and Project MIS	PIU



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
9.b Total Value of loans received using Warehouse receipt system for project beneficiaries		Amount(US D)	0.00	4200000.00	Annual	Financial Institutions and Reserve Bank of Malawi	PIU
Description:							
Name: 10. Number of warehouses that introduced warehouse receipt system		Number	0.00	60.00	Annual	Records from Commodity Exchanges and Project MIS	PIU
Description:							
Name: 11. Project supported Agro-business organizations that obtained one or more certifications (disaggregated by type of certification)		Number	0.00	50.00	Semi-Annual	Project MIS	PIU
Description: This indicator tracks number of project beneficiaries such as POs and SMEs obtained certifications such as SPS certification, MBS, global gap, rain forest, halaal, fair trade, HACCP, and ISO							
Name: 12. Smallholders/farmers/beneficiaries (male and female farmers or businesses) satisfied with services		Percentage	0.00	80.00	Every 2 years	Survey	PIU



Indicator Name	Core	Unit of Measure	Baseline	End Target	Frequency	Data Source/Methodology	Responsibility for Data Collection
provided by the project							
12.a Female farmers satisfied with services provided by the project, % of all respondents		Percentage	0.00	50.00	Every 2 years	Survey	PIU
<p>Description: This indicator tracks level of satisfaction POs and SME beneficiaries with regard to responsiveness of the project in reflecting their views and need to the project implementation. Representatives of POs, SMEs, Civil society and government officials will regularly participate public-private and inter-ministerial dialogue on key issues around agriculture. The result will be sex-disaggregated.</p>							
Name: 13. Farmers reached with agricultural assets and services.		Number	0.00	70000.00	Semi Annual	Project MIS	PIU
13.a Female farmers reached with agricultural assets and services		Number	0.00	30000.00	Semi-Annual	Project MIS	PIU
<p>Description: This indicator will track the number of beneficiaries reached by capacity building services, grouped into PO's, accessing financial, value addition and/or marketing services and other services offered by the project.</p>							
Name: 14. Number of Agriculture Business related reforms undertaken		Number	0.00	20.00	Semi Annual	MOITT Reports	MOITT PS Department
<p>Description: This indicator will measure regulatory reforms that improve the business environment for agriculture.</p>							

**Target Values****Project Development Objective Indicators**

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
1) Increase in Yield of commodities by supported Producer Organizations participating in Productive Alliance	0.00	0.00	10.00	25.00	35.00	45.00	50.00	50.00
1.a Increase in Yield of crops by supported Producer Organizations participating in Productive Alliance (disaggregated by cereals, pulses and horticulture)	0.00	0.00	10.00	25.00	35.00	45.00	50.00	50.00
1.b Increase in Yield of livestock products (milk, meat, eggs) by supported Producer Organizations participating in Productive Alliance	0.00	0.00	10.00	25.00	35.00	45.00	50.00	50.00
1.c Increase in Yield of fishery products by supported Producer Organizations participating in Productive Alliance	0.00	0.00	10.00	25.00	35.00	45.00	50.00	50.00
2) Producer groups that meet market specifications defined by off-takers	0.00	20.00	80.00	150.00	240.00	280.00	300.00	300.00
2.a Proportion of women based producer organization that meet	0.00	10.00	25.00	35.00	45.00	50.00	50.00	50.00



Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
market specification defined by off-takers								
2.c Producer groups that sustainably meet market specifications defined by off-takers for at least two years.	0.00	15.00	40.00	70.00	100.00	160.00	180.00	180.00
2.b Proportion of youth based producer organizations that meet market specifications defined by off-takers.	0.00	5.00	15.00	25.00	35.00	45.00	50.00	50.00
3. Value of gross sales from agriculture value chain products supported by the Project	0.00	2000000.00	8000000.00	20000000.00	45000000.00	70000000.00	85000000.00	85000000.00

Intermediate Results Indicators

Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
4. Productive alliances established	0.00	5.00	25.00	80.00	130.00	170.00	200.00	200.00
5. Number of subprojects financed with matching grants.	0.00	10.00	40.00	50.00	70.00	60.00	20.00	250.00
5.a Number of Youth based PO accessing the matching grants	0.00	2.00	8.00	15.00	20.00	25.00	30.00	30.00
6. Buyers who fulfill their obligations under the commercialization	0.00	5.00	20.00	45.00	70.00	90.00	100.00	100.00



Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
agreement or business plan of PA								
7. Number of loans from Financial Institutions supported by the partial credit guarantee fund (PCGF)	0.00	0.00	20.00	60.00	90.00	120.00	150.00	150.00
7.a Value of loans disbursed by FIs with support of the partial credit guarantee fund	0.00	0.00	1400000.00	3300000.00	5700000.00	8600000.00	12000000.00	12000000.00
8. Number of last mile infrastructure subprojects implemented	0.00	0.00	10.00	20.00	35.00	45.00	50.00	50.00
9. Number of agricultural actors that receive FI loans by using warehouse receipt	0.00	0.00	10.00	25.00	35.00	50.00	60.00	60.00
9.a Proportion of women members of PO that receive FI loans by using warehouse receipt	0.00	0.00	20.00	30.00	35.00	35.00	40.00	40.00
9.b Total Value of loans received using Warehouse receipt system for project beneficiaries	0.00	0.00	588000.00	1400000.00	2500000.00	4200000.00	4200000.00	4200000.00
10. Number of warehouses that introduced warehouse receipt system	0.00	3.00	15.00	30.00	40.00	50.00	60.00	60.00
11. Project supported Agro-business organizations that obtained one or more certifications (disaggregated by	0.00	0.00	8.00	20.00	30.00	40.00	50.00	50.00



Indicator Name	Baseline	YR1	YR2	YR3	YR4	YR5	YR6	End Target
type of certification)								
12. Smallholders/farmers/beneficiaries (male and female farmers or businesses) satisfied with services provided by the project	0.00		40.00		70.00		80.00	80.00
12.a Female farmers satisfied with services provided by the project, % of all respondents	0.00		35.00		40.00		50.00	50.00
13. Farmers reached with agricultural assets and services.	0.00	5000.00	15000.00	30000.00	50000.00	70000.00	70000.00	70000.00
13.a Female farmers reached with agricultural assets and services	0.00	2000.00	7000.00	15000.00	24000.00	30000.00	30000.00	30000.00
14. Number of Agriculture Business related reforms undertaken	0.00	3.00	6.00	10.00	14.00	17.00	20.00	20.00



ANNEX 1: IMPLEMENTATION ARRANGEMENTS

Malawi Agricultural Commercialization Project

PROJECT IMPLEMENTATION ARRANGEMENTS

Project Implementation and Coordination

1. The project will be implemented by MoAIWD in close collaboration with (MoITT). An independent **Project Implementation Unit (PIU)** will be established to oversee day-to-day project implementation, monitor progress, and coordinate and account for utilization of project funds. The PIU will be headed by the Project Coordinator and include the following key professionals: Procurement Specialist, Finance Management Specialist, Monitoring and Evaluation Specialist, Agribusiness Specialist, Trade Facilitation Specialist, Institutional Development Specialist, Irrigation/Civil Engineer, and Environmental/Social Development Specialist. The PIU staff will be constituted by experienced, competitively recruited professionals. The PIU will report directly to the PS, MoAIWD. Under the guidance of the PSC, the PIU will hire other required specialists or support staff to enable it to deliver adequately on Project Implementation.
2. A **Project Steering Committee (PSC)** will be established to provide overall strategic guidance and will comprise representatives of MoAIWD, MoITT, MITC, MoLHUD, MoGCDSW; MoYSC and MoFEPD, all at PS level or delegated, and representatives from MCCI and FUM. The PSC will be chaired by the PS for Agriculture, and co-chaired by the PS for Ministry of Trade. The PSC will be the highest oversight body responsible for providing general policy guidance to the project. The Project Coordinator will serve as secretary to the PSC, which will meet bi-annually.
3. A **Project Technical Committee (PTC)** will be established under the PSC and comprise implementing agencies of the project (private sector, financial institutions, PO representatives, directors of relevant implementing ministries and government departments, brokers, and relevant PA service providers). The PTC will provide technical oversight of project implementation. This structure will be chaired by the Director of Planning in MoAIWD and co-chaired by Director of Planning in MoITT. The PIU will function as the secretariat for both the PSC and the PTC. The PTC will meet on a quarterly basis in the initial years but later bi-annually.
4. The project will utilize existing **policy dialogue forums** to improve dialogue and coordination. Such platforms include Joint Sector Reviews (under ASWAp), TWGs (Commercial Agriculture and Market Development of ASWAp, and other relevant TWGs under the National Export Strategy). The project will also utilize the existing PPD Forum and other relevant commodity platforms.
5. As the project has adopted a **Productive Alliance Model**, various players will be involved, such as producers, off-takers, brokers, TA and business service providers, independent evaluators, and financial institutions. The PIU will facilitate the contracting of competent stakeholders (on a competitive basis) through MOUs with clear roles and responsibility, to be detailed in the PIM. For instance, the service brokers will support the producer organizations to develop sensible business plans to be evaluated by an independent evaluator group. Other service providers will be contracted to perform various functions as stipulated in the business plan of the productive alliance—for example, productive investments, TA and business development—while strengthening the horizontal and vertical alliance as applicable to the



existing PA model. The service providers will be selected through a competitive tender managed by the PIU, which will select the service providers to whom contract will be awarded. The project will also support other investments in form of last-mile infrastructure, which will be reviewed by an independent evaluation team, in line with the value chains of the respective business plans of the POs.

Partnership Arrangements:

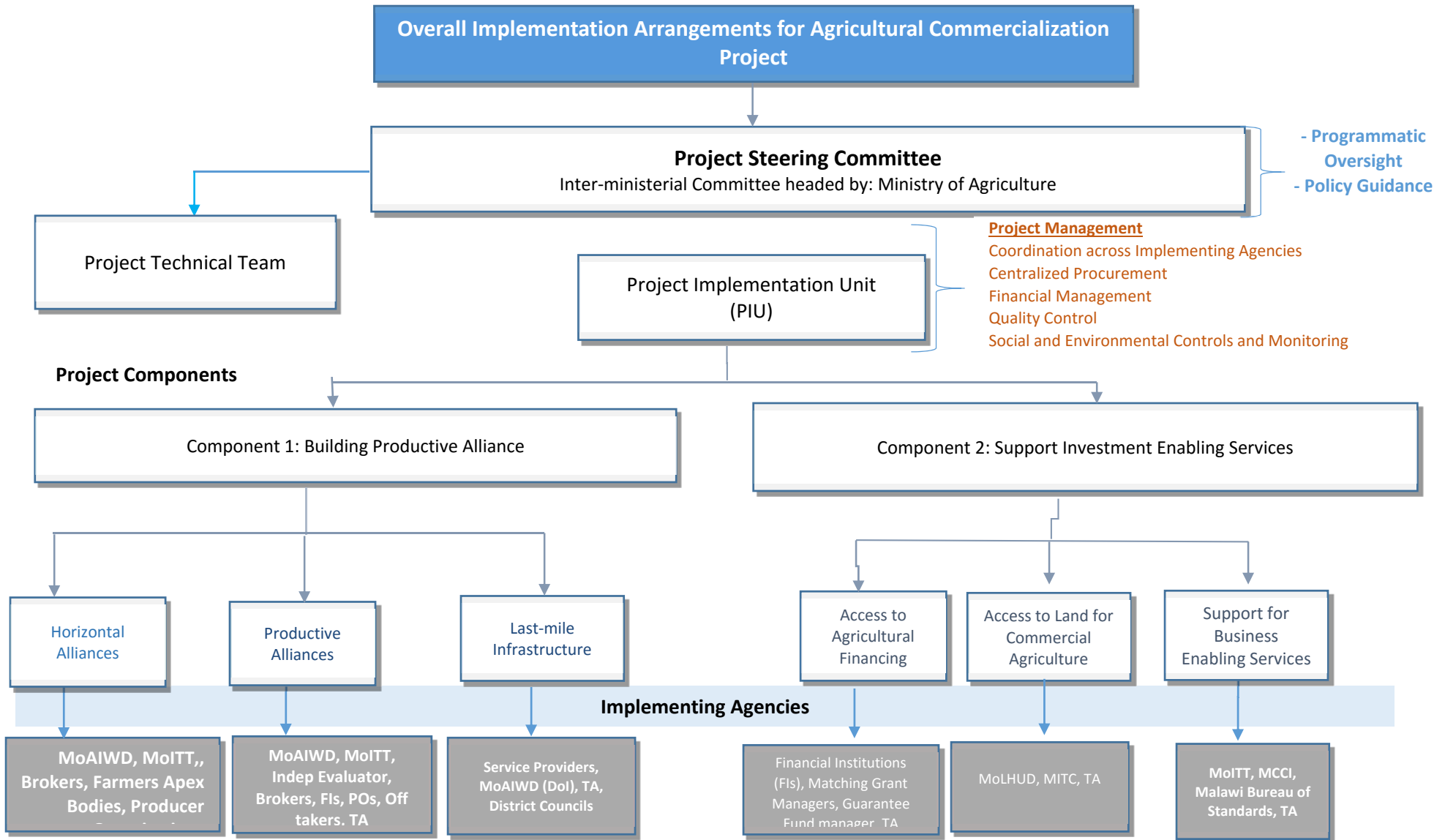
6. The project will be implemented in collaboration with IFC and other development partners. IFC will provide advisory services on operations of agribusiness work, and required tools for ensuring an effective linkage between off takers and producer organizations. The World Bank and Government of Malawi will undertake joint implementation support missions on a bi-annual basis to provide guidance to project implementation teams.

PROJECT INSTITUTIONAL ARRANGEMENTS

7. The key institutions responsible for implementation of the Agricultural Commercialization Project in Malawi are: (a) MoAIWD; (b) MoITT; (c) MoLHUD; (d) MITC; and (e) Productive Alliance stakeholders.

8. MoAIWD will have overall responsibility for implementation of the project. It will work hand-in-hand with its respective government departments to coordinate specific project activities. The Land Resources and Conservation Department will be responsible for ensuring integration of CSA, while the Department of Agricultural Extension will ensure strong integration of gender within the project. The Trade and Marketing Unit, which sits in the Department of Planning of MoAIWD, will be responsible for supporting the marketing environment for the agricultural commodities while working closely with MoITT. At the implementation level, the project will work with respective District Councils and work closely with respective POs.

9. MoITT will co-lead implementation of the project, with responsibility for promoting trade and private sector development and especially for championing the creation of a conducive environment for marketing and trading commodities. MoITT will work closely with its department for private sector development in promoting efforts to strengthen off-takers' linkages with POs. On the latter, the cooperative unit of the Ministry of Trade will provide support for strengthening horizontal linkages to make sure that various POs in the form of cooperatives are properly registered and conform to the expected standards. MoITT will participate in and co-chair the PSC meetings (PS level) and PTC (at Director level).





10. **MITC**, as the lead agency for trade and inward investment promotion, will provide specialized support to investors in all prioritized sectors for industrializing Malawi and promoting and facilitating export products and services of Malawi. Within the context of recently enacted land bills, the agency has been given the mandate to make land available for commercial investments in the agriculture sector. MITC will therefore work closely with MoLHUD to remove bottlenecks in accessing land in order to promote agricultural commercialization. Designed to be a one-stop shop, MITC will also build links between foreign buyers and investors and Malawian products. MoLHUD will create a conducive environment to promote access to land as well as tenure security. In operationalizing the new land bills, particular emphasis will be given to strengthening land tenure security for vulnerable women and youth, while also ensuring efficiency and utilization of idle estate land.

11. **Productive Alliance stakeholders:** Producers will be an organized group of smallholder farmers involved in producing commodities for commercialization through particular value chains. Producers' primary role is therefore to generate the products for commercialization, based on market demand as expressed by off-takers (buyers). The off-takers will purchase products from the POs, to which they may be formally or informally linked. The off-takers will determine which requirements the products must meet (volume, quality, and pricing, for example). Brokers will be involved to facilitate and strengthen the linkages between POs and off-takers, and they will play a key role in working with PO to develop sound and competitive business plans, while ensuring that expected capacity is in place. Other service providers will offer TA, access to finance, act as facilitators to POs and off-takers, and offer other services that will ensure the development of an effective PA. Once business plans are developed by the POs, an independent evaluator (panel of experts) will be engaged to assess the plans and shortlist those that can be supported by the project.

SPECIFIC IMPLEMENTATION ARRANGEMENTS FOR PROJECT SUBCOMPONENTS

Subcomponent 1.1: Horizontal Linkages (Formation of Producer Organizations)

12. The project will work with organized producer associations and also assist groups of smallholders to form associations, with the aim of creating a PA. The project will carry out mass communication campaign to ensure that producers and POs are aware of the project, and then launch calls for proposals that will be open to all. The calls for proposals will invite POs to express their interest by preparing a business plan with off-takers and submitting it to the PIU. Note that many existing POs will be eligible to apply in the first call for proposals, while newly formed POs will submit plans after subsequent calls for proposals.

Subcomponent 1.2: Building Productive Alliances in Malawi

13. Service providers will be contracted by the PIU on a competitive basis, based on competency criteria to be detailed in the PIM, to perform a "brokerage function" and support delivery of the PAs and disbursement of funds. These service providers will also raise awareness of the project and facilitate linkages between producer associations and off-takers. Producers will be informed about the program and encouraged to participate either in an existing group or association or in an association formed for the purpose of entering a PA. Producer associations will be provided with business support to prepare their business plans and liaise with off-takers to agree on contractual terms and conditions. The project will rely on an institutional contractor who has the fiduciary responsibility to support TA and assist producer associations in procurement and financial management. An independent evaluator (expert selection panel) will be selected on a competitive basis to review business plans submitted from the POs and recommend their suitability for inclusion in the program, based on a range of criteria:

- Technical feasibility (for example, production capacity and quality).



- Financial viability (for example, financial sustainability beyond duration of project support).
- Market linkage strength (for example, quality of market analysis, identification of TA needs, participation in marketing events).
- Alliance partners' capacity (for example, quality of production planning, quality control, identification of production bottlenecks).
- Social aspects (for example, potential for job creation, belonging to a disadvantaged group).
- Environmental sustainability and management of production risks (for example, promotion of improved or climate-efficient production practices of the proposed subproject).

14. The projects will support successful business plans (subprojects) in the form of grants for TA and matching grants for capital investments (up to 70 percent of total investment costs, as a single-time grant). Working capital will need to be financed by POs, which the project will link to financial institutions to obtain the external finance they require.

15. A PCG Fund will be established to reduce the risk exposure of financial institutions in financing POs. The PCG Fund will be structured based on the lessons learned from the past World Bank projects and other PCGs.²⁴ The key features of the PCG include:

- Assuming that 200 POs out of 300 will require an average loan of US\$55,000,²⁵ the total loan amount will be US\$11 million, of which US\$5.5 million will be guaranteed by the PCG (50 percent coverage). With the multiplier of 2x, capital of US\$2.75 million will be required to back the guarantees.²⁶ Additional financial resources will be made available to cover some initial management costs of the PCG, as well as TA for participating financial institutions on agricultural finance and PCG.
- The capital can be invested in highly liquid and safe assets that generate some income for the PCG.
- A competitively selected third-party organization will manage the PCG on behalf of the PIU. The PCG manager will appraise the guarantee applications based on the selection criteria (for example, loans to POs for PA activities). With the clearance of the manager and the selection panel of the PAs, PIU will issue the guarantees. The first 10 guarantees will be subject to prior review by the Bank.
- Initially three to four partner financial institutions will be selected based on criteria that will include demonstrated experience in financing POs, institutional capacity, and other requirements.
- The PCG will provide guarantees to individual loans, not loan portfolios. The guarantee fee is expected to be a maximum of 2 percent, according to the best practices in other counties. The details will be defined in the PCG Operational Manual and will consider the risks of loans, the management cost of the PCG, and potential market distortions.
- The claim settlement process will be transparent and streamlined to build confidence among partner financial institutions.

²⁴ See the Principles for Public Credit Guarantee Schemes for SMEs (<http://www.worldbank.org/en/topic/financialsector/publication/principles-for-public-credit-guarantee-schemes-cgss-for-smes>).

²⁵ It is assumed that US\$47,500 will cover working capital requirements and be repaid within one year. The rest is loans for capital investment with longer duration. Most POs will continue to finance working capital through financial institutions throughout the project, although some will self-finance.

²⁶ A multiplier of 2x is rather conservative compared to international experience and should be reviewed and adjusted during implementation.



- The PCG will be designed and managed to achieve financial self-sustainability by the end of the project period so that there will be an option to make the PCG a longer-term mechanism to support access to finance (for instance, income from the investment and the guarantee fees cover the management costs and the payout for the claim).
- The PCG will be closely monitored by the PIU and World Bank based on a robust M&E framework, and adjustments will be made as needed during the implementation. Other details of the PCG will be described in the Operational Manual.

16. The sequence of key steps for the establishment of the PCG is as follows: (1) issuance of a call for Expression of Interest (EoI) to identify potential PCG managers; (2) assessment of potential PCG structures based on the EoIs received; (3) selection of the PCG manager through a competitive process; and (4) development of the PCG Operational Manual. The project funds for the PCG will be disbursed in tranches to the PIU. The initial tranche will be provided upon completion of the PCG Operational Manual and it will be US\$1.4 million, approximately 50 percent of the PCG funding required. Subsequent disbursements will be calculated based on PCG utilization. To ensure successful implementation of the PCG, the above gradual approach and close monitoring by the PIU and the World Bank are required.

17. Due to the complexity of the PCG, the following residual risks still exist: (a) a suitable PCG manager may not be identified; (b) the PCG may not be fully used by financial institutions; and (c) the PCG becomes financially unsustainable due to the large number of claims and payouts. In cases (a) and (b), the project may need to reallocate funds assigned to this component. If (c) should occur, the Government of Malawi may lose its contributions to the PCG.

Subcomponent 1.3: Last-mile Infrastructure for Productive Alliances

18. This subcomponent includes investment in last-mile infrastructure that will help to address key bottlenecks to successfully carrying out activities in the PAs. Such investments have to be public and not private, and might include connectivity to markets (roads), access to water facilities, energy, electricity, and so on. The types of public investments eligible for support under the project will be detailed in the PIM. POs will need to submit their last-mile investment requirements for effectively implementing their business plans. The last-mile infrastructure will have to be assessed to ensure that it meets criteria for public investment—such as addressing a market failure related to the proposed business plan of the PA. The business plans as well as the last-mile infrastructure will be assessed by an Independent Evaluator (panel of experts).

Subcomponent 2.1: Access to Agricultural Financing

19. The PIU will identify and engage a specialized technical expert/agency to assess the warehouse receipt system, review international experience, and recommend suitable risk mitigation mechanisms to strengthen the Malawian system. The project will also provide TA on warehouse receipt systems for POs, other farmer organizations, and SMEs. The project will also explore potential solutions to increase access of farmers and SMEs to warehouses in the rural areas.

Subcomponent 2.2: Access to Land for Commercial Agriculture

20. To promote access to land for commercial agriculture, the project through the PIU will engage TA (consultants) to train POs and MoLHUD officials on the VGGT and implementation of the new land bills, including RIA. The project will also work with MoLHUD to support land tenure security to POs supported under the PA (based on need), which will entail land consolidation and registration, and ultimately lease



agreements (deeds). All POs under the PA interested in registering their land will be provided equal opportunities. At the national level, the project will support the capacity of MITC to make land available for commercial investors, and ensure that they are connected to the Land Information System. The PIU will work closely with this TA and MoLHUD to support operationalization of the land information system. This intervention complements efforts under the ASWAp-SP, where TA is being used to develop the land information system.

Subcomponent 2.3: Support for Business Enabling Services

21. The project will support business enabling services directed at promoting agricultural commercialization. The key services will include:

- (a) Complementary World Bank Group TA, using IFC-administered funds to support policy and legal reforms to support agricultural commercialization. This effort might include capacity building, based on demand, as well as advisory services.
- (b) The PPD Forum requires additional support to ensure that it continues its momentum to meet on a quarterly basis. MoITT will be directly responsible to achieve this objective, working closely with the Malawi Confederation of Chambers of Commerce and Industry (MCCCI) and the PIU. The project will create a taskforce within the PPD Forum dedicated to promoting agricultural commercialization. The project will also endeavor to support existing commodity value chain platforms. The project will support dialogue platforms and TWGs under the National Export Strategy, based on relevance to the value chains supported under the PA.
- (c) Direct support will be provided to MBS for ensuring effective standards and certification, in line with requirements of the World Trade Organization (WTO). The PIU will carry out a capacity needs assessment which will be used as a basis for a capacity development plan. The PIU will work directly with TA to support standards and certification at the PO level and coordinate with MBS on effective implementation. Additional support will be provided by the project to support POs in meeting various certification standards.
- (d) MoITT will be responsible for efforts to facilitate agricultural trade, aimed at increasing trade transparency and simplifying trade procedures. MoITT will work closely with the PIU to do so. The expected outcome from this effort will be increased international trade, especially at the regional level.
- (e) TA support will be provided to MITC to review regulatory and technical issues underpinning country's investment for domestic and foreign investors, as it relates to agricultural commercialization.

Component 3: Contingent Emergency Response Component

22. This component is included in accordance with OP/BP 10.00, paragraphs 12 and 13, for situations of urgent need of assistance. It allows rapid reallocation of project proceeds in the event of a natural or man-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact. To trigger this component, the government needs to declare an emergency or provide a statement of fact justifying the request for the activation of the use of emergency funding. To allocate funds to this component, the government may request the Bank to reallocate project funds to support response and reconstruction.

23. If the World Bank Group agrees with the determination of the disaster and associated response needs, this component would draw resources from the unallocated expenditure category and/or allow the



government to request the Bank to re-categorize and reallocate financing from other project components to cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available as a result of an emergency.

24. Disbursements would be made against a positive list of critical goods or the procurement of works, and consultant services required to support the immediate response and recovery needs. A specific Emergency Response Operations Manual will apply to this component, detailing financial management, procurement, safeguards and any other necessary implementation arrangements.

Component 4: Project Coordination and Management

25. This component finances the PIU, which will oversee the implementation of project activities, ensure sound fiduciary management of the project (both procurement and financial management), comply with World Bank fiduciary reporting requirements (including submission of a semi-annual project implementation progress report), carry out M&E, ensure compliance with social and environmental safeguards, and engage in communication and reporting. The PIU is also responsible for implementing calls for proposals and administrating the matching grant program. Aside from supporting these functions, Component 4 finances research and analysis to orient implementation, provide opportunities for learning, and develop a growing evidence base to inform future operations. The details on the PIU were described above.



ANNEX 2: PROJECT FIDUCIARY ARRANGEMENTS

FINANCIAL MANAGEMENT ASSESSMENT

- 1. Financial management (FM) assessment (undertaken at MoAIWD):** The assessment was undertaken to determine whether the FM arrangements in place for the proposed project satisfy World Bank Operation Policy/Bank Procedures under (a) Bank Directive: Financial Management Manual for World Bank Investment Project Financing Operations (Catalogue number OPCS5.05-DIR.01) Issued (Retrofitted): February 4, 2015 and effective from March 1, 2010 and (b) Bank Guidance: Reference Material-Financial Management in World Bank Investment Project Financing Operations (Catalogue Number OPCS5.05-Guid.02) Issued and effective February 24, 2015. The FM arrangements are meant to ensure that: (a) the project will use funds efficiently and economically for the intended purposes and be capable of correctly and completely recording all transactions and balances related to the project; (b) the project's financial reports will be prepared in an accurate, reliable, and timely manner; (c) the project's assets will be safely guarded; and (d) the project will be subjected to auditing arrangements acceptable to the Bank.
- 2. The FM assessment revealed strengths and weaknesses:** MoAIWD's strengths are that it has adequate experience with Bank-financed projects, adequate budgeting arrangements, and has already developed an FM Manual for the ASWAp, which contains comprehensive accounting and financial procedures for proper management of project funds. That said, public FM processes are weak at the central and district level. Control weaknesses in the IFMIS at the central level led to massive theft of funds, and at the district level, project resources usually are not processed in the computerized IFMIS. Noncompliance with procedures was widespread and ineligible expenses were incurred as a result of weak internal controls. In addition, weak remedies for noncompliance exacerbated the impact of weak internal controls. Weak audit committees rendered the internal audit function ineffective. Corruption and fraud deterrence mechanisms were lacking, and the fiduciary staff experienced high turnover.
- 3. The Bank has been conducting comprehensive FM reviews of the ADP-SP-P105256 and ASWAp-SP-P148964:** The reviews covered both central and district-level FM. The major weaknesses are the lack of or inadequate supporting documentation for payments, duplicate payments, failure to follow procurement procedures, improper payment of allowances, delays in liquidation of advances, failure to properly account for fuel expenses, and failure to prepare back-to-office reports.
- 4. The overall FM risk is High:** MoAIWD will be required to implement the agreed measures described below to address the fiduciary weaknesses identified during the FM assessment and comprehensive reviews to satisfy the Bank's minimum requirements under OP/BP 10.0. The measures will include FM arrangements that are capable of providing, with reasonable assurance, accurate and timely information on the financial status of the project required by the Bank.
- 5. Mitigation measures recommended to be incorporated in the project design.** The major FM mitigation measure for the proposed project is use of the PIU, which will include qualified and experienced FM staff that will be responsible for the overall FM arrangements for the project, and which will be established within three months of project effectiveness. This FM staff will be contracted at effectiveness (this measure is a condition for effectiveness). Other mitigation measures are also recommended: (a) the project will acquire and install an accounting package for processing project transactions and reporting; (b) the PIM will incorporate enhanced fiduciary controls, including eligibility and red flags; (c) the project will have exclusive US dollar and Malawi kwacha bank accounts; (d) project regional offices will be set up to cater for district-based project activities (one regional office will cater for several districts); (e) the



project will incorporate social accountability mechanisms, including public reporting and use of community volunteers and civil society organizations in social audits and disclosure of project information; (f) the project will incorporate corruption prevention and reporting mechanisms and will coordinate with the Anti-Corruption Bureau (ACB); (g) regular community awareness and capacity building will be undertaken on fiduciary and social accountability measures; (h) internal auditors will be designated for the project, preferably managed by the Central Internal Audit Unit, given the multisectoral nature of the project; and (i) terms of reference (ToRs) for the external audit will be agreed upon no later than three months after effectiveness.

Accounting and reporting

6. The project will prepare an FM manual that outlines procedures to be followed when using project resources. The manual will include operations at the district and community level. As noted, the project is advised to acquire and install accounting software transactions and reporting. The government's computerized accounting system (IFMIS) is to be replaced, but this process is likely to take some time. Reporting will be in the form of unaudited interim financial reports (IFRs) for calendar quarters, due 45 days after the end of each quarter.

Internal controls and internal audit

7. The FM manual will detail controls and procedures to be followed in using project funds. The project will need a strong internal audit function. It is recommended that the Central Internal Audit Unit be assigned to manage the project's internal audit functions, as discussed.

Budgeting

8. The PMU will consolidate the annual workplans and budgets submitted by various project components. The budget will follow government calendar which runs from July 1 to June 30. The AWP's and budgets will need to be approved by the Steering Committee during one of their meetings and subsequently cleared by the Bank.

Disbursement and funds flow

9. The project will open a U.S. dollar Designated Account (DA) with the Reserve Bank of Malawi or commercial bank acceptable to IDA. Funds will flow from IDA to the DA. The project will also open a kwacha operating account with a commercial bank acceptable to IDA. If required the project may open, with the agreement of the World Bank, more accounts in districts where the project's regional offices are located. For kwacha expenses, funds will flow from the DA to the kwacha operating account. The disbursement method will be IFR based. A second Dollar designated account for use by the independent third party to manage the PCG funds will be opened with a commercial bank acceptable to IDA. Funds will be transferred direct from IDA to this DA. The project management will be responsible for accounting for funds in both DAs.

Fraud and corruption

10. Efforts to prevent fraud and corruption should start with enhanced social accountability mechanisms to increase public awareness of project activities. These mechanisms will require the involvement of community volunteers, civil society organizations, and other stakeholders, including the ACB. Governance and Anti-Corruption (GAC) interventions will form part of FM capacity building across all stakeholders, and GAC mechanisms will be incorporated into the FM social accountability structures. These social



accountability mechanisms should be part of the project design and assist in preventing or detecting corruption, reporting fraud, and whistle blowing.

External auditing

11. The audited annual financial statements will be prepared using the international public sector accounting standards that have already been adopted by the Institute of Chartered Accountants in Malawi. ToRs for the audit will be agreed with the World Bank. The audit will be done by the Auditor General or a private firm subcontracted by the Auditor General based on agreed ToRs.

PROCUREMENT

12. Procurement under the Agriculture Commercialization Project will be carried out in accordance with the World Bank Guidelines, Procurement Regulations for Investment Project Financing: Goods, Works, Non Consulting and Consulting Services dated July 1, 2016 and the provisions stipulated in the Financing Agreement and the Malawi Public Procurement Act (No. 8 of 2003). As is a mandatory requirement for projects using the IPF, a Project Procurement Strategy for Development (PPSD) was prepared and approved at Negotiations. This is a strategy prepared by MoAIWD that describes how procurement in IPF operations supports the development objectives of the project and delivers value for money. The Bank core procurement principles of value for money, economy, integrity, and fit for purpose, efficiency, transparency, and fairness must be observed throughout the procurement process. An open, competitive approach to the market is the Bank's preferred approach, as it provides all eligible bidders/proposers with timely and adequate advertisement of project requirements, and provides an equal opportunity to provide the required goods or services.

13. The use of World Bank Standard Procurement Documents for contracts under International Competitive Bidding Procedures and consultant's contracts involving international consultants beyond a threshold that have been defined in the Procurement Plan. For procurements involving national competition below the defined thresholds, Government of Malawi Procurement Law and associated bidding documents, which have been reviewed and found acceptable by the Bank, will be used. For each contract to be financed under the Agricultural Commercialization Project, the various procurement or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and timeframe have been agreed between the GoM and the Bank in the PPSD and Procurement Plan (PP). The PPSD and Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

14. Procurement under the Malawi Agricultural Commercialization Project will be carried out and led by MoAIWD, where a dedicated Project Management Unit will be created and be responsible for all procurements. MoAIWD has an Internal Procurement Committee which is responsible for awarding contracts, and this same Committee will be responsible for awarding contracts under the project.

Legal Aspects and Procurement Practices in Malawi

15. Public Procurement in Malawi is governed by the Public Procurement Act of August 2003. The Act requires procurement regulations to provide, inter alia, thresholds for use of various procurement methods, bidding and bid evaluation procedures, and contract management. The Act further establishes the Office of Director of Public Procurement (ODPP), with oversight for public procurement. The Office became operational in 2005 with the appointment of the director and other substantive officers. The government also established Internal Procurement Committees (IPCs) and Specialized Procurement Units (SPUs) in all ministries and departments as the responsible bodies for procurement and award of contracts



in the ministries and departments. Procurement Regulations and Desk Instructions have been distributed to all procuring entities. The ODPP has also established a dedicated website for sharing information, placing advertisements, and notification of awards to the general public.

16. The ODPP issued a number of standard bidding documents (SBDs), the use of which is mandatory, covering works, goods, and services. The ODPP further issued desk instructions, RFP, and a contract form for Consulting Services as well as requests for quotations for goods, works and services. The Bank had reviewed the documents and found them to be generally consistent with Bank Guidelines. They may be used under National Competitive Bidding procedures with due attention to some issues related to clarity of the evaluation criteria, award to the lowest evaluated responsive and qualified bidder, participation of foreign bidders, domestic preference and advocacy for artificial division of lots to promote participation of small enterprises in National Competitive Bidding, and the Registration or Classification that should not be used as criteria for bidding. Procurement under MoAIWD is guided by the Malawi Public Procurement Act, August 2003, its Regulations and Desk Instructions.

Project Procurement Development Strategy (PPDS)

17. The project has prepared a simplified PPSD as no complex contracts are to be undertaken by the project and provided the simplified procurement arrangements are consistent with the Bank's Core Procurement Principles of value for money, economy, integrity, fit for purpose, efficiency, transparency, and fairness. The PPSD addresses how procurement activities will support the development objectives of the project and deliver the best value for money under a risk-based approach. The PPSD provides adequate justification for the selection methods in the PP and the level of detail and analysis should be proportional to the risk, value, and complexity of procurements.

18. The prepared PPSD was reviewed and agreed together with the PP during negotiations and was incorporated in the Loan Agreement, making it legally binding on the Government of Malawi. The PPSD has the following key elements:

- (a) Project Overview
- (b) Operating Context and Borrower Capacity
- (c) Market Research and Analysis
- (d) Risk Management.
- (e) Procurement Arrangements
- (f) Contract Management

Procurement Plan

19. A PP that outlines the procurement procedures to be used and helps to plan and monitor implementation of investment activities was prepared and agreed upon. The PP for AGCOM provides (a) a brief description of the activities/ contracts for the goods, works, non-consulting services and/or services; (b) the selection methods to be applied; (c) estimated cost of each individual contract; (d) time schedules; (e) Bank review requirements; and (f) any other relevant procurement information. MoAIWD shall update the PP annually or as needed throughout the duration of the implementation of the AGCOM Project, and implement it in the manner in which it has been agreed and approved by the Government of Malawi and the World Bank.



Procurement Methods

International competitive procurement

20. Under international competitive procurement for Goods, Works, Non Consulting Services, and Consulting Services, the applicable Bank Standard Procurement Documents will be used with minimum changes to suit project-specific conditions. All procurement for **Works above US\$7 million** thresholds shall be conducted using International Competitive Procurement requirements as defined in the PP of the project, while procurement for **Goods and Non Consulting Services above US\$1 million** will use Bank mandatory documents and will be subject to prior review.

National procurement procedures (NPP)

21. All procurements below **US\$7 million for Works and Goods and Non Consulting Services below US\$1 million** will use NPP procedures as agreed in the PP and will be carried out in accordance with the Malawi Procurement Act No. 8 of 2003. Requirements for national open competition shall include: (a) open advertising of the procurement opportunity at national level; (b) the procurement is open to eligible firms from any country; (c) the request for bids/request for proposal shall require to present a signed acceptance at time of bidding to be incorporated in any contract confirming compliance with the Bank's Anti-Corruption Guidelines²⁷, including the Bank's right to sanction, inspection and audit rights; (d) contracts with appropriate allocation of responsibilities, risks, and liabilities; (e) publication of contract awards; (f) rights for the Bank to review procurement documentation and activities; (g) an effective complaints mechanism must be in place; and (h) maintenance of records of the procurement process. Other national procurement arrangements such as limited/restricted competitive bidding, request for quotations /shopping, and direct contracting shall be consistent with the Bank's Core Procurement Principles, Anti-Corruption Guidelines and Sanctions Framework and other contractual remedies as set out in the Legal Agreement.

Selection methods for goods, works, and non-consultant services:

22. An open, competitive approach to the market is the Bank's preferred approach, as it provides all eligible bidders/proposers with timely and adequate advertisement of project requirements and provides an equal opportunity to provide the required goods or services. All procurement of goods above and non-consulting services above US\$1 million will use International Competitive Procurement. The following methods will be used for procurement of goods, works, and non-consultant services under the project, and appropriate contract documents must be used:

- (a) **Request for Proposal (RFP)** is a competitive method for the solicitation of Proposals and will be used when the business needs are better met by allowing Proposers to offer customized solutions or proposals that may vary in the manner in which they meet or exceed the requirements of the request for proposal document. The RFP method is conducted in a multi-stage process to allow evaluation of the degree to which proposals meet the requirements of the request for proposal document, and evaluations will include rated criteria and methodology.
- (b) **Request for Bids (RFB)** is a competitive method for solicitation of bids where the detailed requirements are specified to which bidders respond. This is a single-stage process with minimum requirements specified, with pass or fail evaluation criteria used, and rated criteria not used.

²⁷ Anti-Corruption Guidelines" means the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated October 15, 2006 and revised in January 2011 and as of July 1, 2016



- (c) **Request for Quotations** is a competitive method based on comparing price quotations and will be used for off-the-shelf goods or non-consulting services, goods with standard specifications, or simple works of small value.
- (d) **Direct contracting for goods or works or non-consultant services:** Direct contracting is contracting without competition (single source) and may be an appropriate method under the following circumstances:
- An existing contract, including a contract not originally financed by the Bank for goods or works or non-consulting services, awarded in accordance with procedures acceptable to the Bank, may be extended for additional goods or works of a similar nature. The Bank shall be satisfied in such cases that no advantage could be obtained by further competition and that the prices on the extended contract are reasonable. Provisions for such an extension, if considered likely in advance, shall be included in the original contract.
 - There is justification that the firm performed satisfactorily in the previous contract, within a period of 12 months, procurements are of low value and low risk, and there is an exceptional case of response to emergency situations.
 - Standardization of equipment or spare parts, to be compatible with existing equipment, may justify additional purchases from the original Supplier. For such purchases to be justified, the original equipment shall be suitable, the number of new items shall generally be less than the existing number, the price shall be reasonable, and the advantages of another make or source of equipment shall have been considered and rejected on grounds acceptable to the Bank.
 - The required equipment is proprietary and obtainable only from one source.
 - The Contractor responsible for a process design requires the purchase of critical items from a particular Supplier as a condition of a performance guarantee.
 - The procurement is essential to achieve required performance or functional guarantees of an equipment, plant, or facility.
 - The goods, works, or non-consulting services provided by a state-owned enterprise within the country are of unique or exceptional nature.
 - Direct selection of United Nations agencies.
- (e) **Community Driven Development** is procurement involving the participation of local communities or non-governmental organizations in civil works and non-consulting services due to their increased knowledge of local conditions or in labor-intensive and other appropriate technologies in order to achieve project sustainability or social objectives.
- (f) **Force accounts:** This refers to works such as construction and installation and non-consulting services carried out by a government department using its own personnel and equipment. A government construction unit that is not managerially, legally, or financially autonomous is considered a force account unit. Force account will be used only after Bank No Objection under the following circumstances:
- The quantities of construction and installation works cannot be defined in advance.
 - The construction works and installation are small and scattered, are in remote locations where qualified firms are unlikely to bid reasonable prices.
 - Construction and installation are required to be carried out without disrupting ongoing operations.
 - The risks of unavoidable work interruption are better borne by the government than the contractor.



- As a matter of law or regulations in such areas, only government specialized agencies can undertake activities due to national security, aerial surveys, and mapping.
- Urgent repairs are required to prevent further damage or works required in conflict areas where private firms may not be interested.

(g) **Framework Agreements (FAs):** Framework Agreements shall be established as and when required and are appropriate when frequent reordering is based on the same or similar requirements or set of specifications, where demand could lead to discounts, emergency situations, or no single firm is considered to have sufficient capacity.

Selection of consultants

23. An open, competitive procurement approach to market is the preferred method for selection of consulting services, including advertisement of EoI, as it provides all eligible prospective firms or individual consultants with timely and adequate information to participate in the process of bidding for providing project requirements. This provides equal opportunity and fairness to all eligible firms. Under this Financing, methods of procurement and selection of consultants will include the following:

(a) **Quality and Cost Based Selection (QCBS):** This is a competitive method where the process among shortlisted firms takes into account the quality of the proposal and the cost of the services. The request for proposal document shall specify the minimum score. The weight given to quality and cost depends on the nature of the assignment. The proposal with the highest combined technical and cost score is considered the Most Advantageous Proposal.

(b) **Direct Selection of consultants:** In selecting the method, consideration must be given to fit for purpose, value for money, and be applied under the following circumstances:

- An existing contract, including a contract not originally financed by the Bank for goods or works or non-consulting services, is awarded in accordance with procedures acceptable to the Bank, may be extended for additional goods or works of a similar nature. The Bank shall be satisfied in such cases that no advantage could be obtained by further competition and that the prices on the extended contract are reasonable. Provisions for such an extension, if considered likely in advance, shall be included in the original contract.
- There is justification that the firm performed satisfactorily in the previous contract, within a period of 12 months, procurements are of low value and low risk, and there is an exceptional case of response to emergency situations.
- Standardization of equipment or spare parts, to be compatible with existing equipment, may justify additional purchases from the original Supplier. For such purchases to be justified, the original equipment shall be suitable, the number of new items shall generally be less than the existing number, the price shall be reasonable, and the advantages of another make or source of equipment shall have been considered and rejected on grounds acceptable to the Bank.
- The required equipment is proprietary and obtainable only from one source.
- The Contractor responsible for a process design requires the purchase of critical items from a particular Supplier as a condition of a performance guarantee.
- The procurement is essential to achieve required performance or functional guarantees of an equipment, plant, or facility.
- The goods, works, or non-consulting services provided by a state-owned enterprise within the country are of unique or exceptional nature.
- Direct selection of United Nations agencies.



- (c) **Fixed Budget Based Selection:** Fixed Budget Based selection is a competitive process among Shortlisted firms under which the quality of the proposal takes into account the quality of the proposal and the cost of the services. In the RFP, the cost of services is specified as fixed budget and should not be exceeded. FBS is for assignments where the assignment is simple and can be defined, budget is reasonably estimated and set, and budget is adequate to perform the assignment. The RFP will specify the budget and minimum score, and the firm with the highest score and meeting the fixed budget requirement is considered the Most Advantageous Proposal.
- (d) **Least Cost Selection:** LCS is a competitive process among shortlisted consulting firms which takes into account quality and cost, and the method is appropriate for assignments of a standard or routine nature such as engineering designs of noncomplex works, audits for which well-established practices or standards exist. The proposal with the lowest evaluated cost is considered the Most Advantageous Proposal.
- (e) **Quality Based Selection (QBS):** Under QBS, a proposal is evaluated without cost as an evaluation criterion. If the RFP requests both a technical and financial proposal, the financial proposal of the firm with highest technical score is opened and evaluated. If on the other hand, the RFP requests a technical proposal only, the firm with highest-ranked technical score is invited to submit a financial proposal for negotiations.
- (f) **Consultant Qualification Based Selection (CQBS):** Under CQBS, Request for Expression of Interest together with ToRs should be advertised and at least three firms shall be requested to provide relevant information about their experience and qualifications from those that submitted expressions of interest. The firm with the best qualifications and relevant experience is requested to submit technical and financial proposals for negotiations. Advertisement of EoI is not mandatory. CQBS is appropriate for small assignments or emergency situations where preparing and evaluating competitive proposals is not justified.

24. **Shortlists of consultants.** Shortlist of consultants are required for selection methods except CQBS and Direct Contracting, and the shortlist shall include not less than 5 and not more than 8 eligible firms for services estimated to cost less than US\$200,000 equivalent per contract. All ToRs for selection of Consultants regardless of value will be reviewed by the Bank prior to start of an assignment.

Prior Review

25. The Bank sets mandatory prior review based on project procurement risk levels, and this may include contracts below mandatory thresholds if it is determined the contract is risky and includes negotiations in a competitive procurement process for Goods, Works, Non-Consulting Services. In cases where risk is assessed to be low, the Bank may determine that such procurements be subject to post review and be included in the PP, and such procurements shall use the Bank Standard Procurement Documents. An independent consultant may be hired to do the prior review clearances on behalf of the Bank. Prior review contracts will include: (a) all contracts estimated to cost the equivalent of US\$5 million or more for works and US\$1million or more for goods and non-consulting services; (b) consulting service contracts provided by a firm estimated to cost the equivalent of US\$200,000 or more; (c) each contract for the employment of individual consultants estimated to cost the equivalent of US\$100,000 or more; (d) as well as cases of direct contracting or single-source selection of contractors, firms, or individual consultants exceeding US\$100,000 per contract. The number of contracts subject to such prior review will be determined by the PP. The Bank's response time for prior review, including comments and/or clearances, shall not exceed 10 working days.



Publication of Awards

26. MoAIWD shall publish on the Bank’s website, the ODPP website, its own website, and in at least one newspaper with national circulation, the Annual Procurement Plan and all awarded contracts. Details of contract awards through Competitive Approaches shall be published through Client Connection in accordance with the Bank Guidelines and using Bank templates. In addition, the details of the contract awards including those through National Procurement Procedures shall also be published on the ODPP website and in at least one local newspaper with national circulation. Procurement Monitoring Reports shall be submitted on a quarterly basis.

Record Keeping

27. The PIU and all implementing agencies under the project shall maintain contract registers and adequate records of all procurement processes, contract by contract. Each contract file shall contain the complete paper trail of the procurement process.

Capacity Assessment of Procurement Staff under Ministry of Agriculture to Carry out Procurement under the Agriculture Commercialization Project

28. MoAIWD will be using the new Procurement Regulations - Investment Project Financing Procurement Regulations which are effective from July 1, 2016. This poses a challenge, as current procurement staff are trained to use neither the new regulations nor the procurement documents. MoAIWD has been implementing IDA-financed projects for 10 years and have procurement staff members who are already familiar with Bank procedures but not the New Regulations 2016; if they are to implement the new project, they must be trained to use the new regulations. As a mitigating measure, therefore, it is recommended that capacity building be undertaken for the PIU once it is created, and all those that will be involved in implementation of the project. The overall risk of the project is **Substantial**, as staff will need to be trained in the new procurement frame regulations.

Risk of fraud and corruption

29. Fraud and corruption are rife in Malawi and necessary steps such as whistle blowing, citizen engagement, and open contract monitoring by non-governmental organizations will reduce project risk in this area.

Risk management

30. Based on the above assessment, the overall Project Procurement Risk is **Substantial**. The following risks have been identified under the project, and mitigation measures have also been proposed, as follows in Table A2.1.

Table A2.1: Project procurement risk and mitigation measures

Sr. No	Risk	Risk Factor		Mitigation Measure	Timeframe	Responsibility
		Impact	Likelihood			
1	Record-keeping and documentation not maintained	Major	Unlikely	All implementation agencies will maintain all procurement records	Whole lifetime of project	PIU/MoAIWD
2	Fiduciary risk relating to main principles of the Bank Procurement Guidelines not being	Major	Unlikely	<ul style="list-style-type: none"> Experienced procurement staff/consultant shall be positioned to guide implementing agencies 	Whole lifetime of project	MoAIWD/IDA



Sr. No	Risk	Risk Factor		Mitigation Measure	Timeframe	Responsibility
		Impact	Likelihood			
	followed			<ul style="list-style-type: none"> Attend training in Bank procurement Conduct training on new Bank procurement procedures Regular supervision support and monitoring 		
3	Inefficiencies and delays in procurement process, especially preparation of ToRs and bid specifications	Major	Likely	<ul style="list-style-type: none"> Regular monitoring through Procurement Plan Timely preparation of ToRs/bid specifications Train staff in preparation of ToRs/bid specifications 	Whole lifetime of project	MoAIWD and IDA
4	Insufficient competition in procurement	Major	Likely	Aggregation of smaller contract packages wherever feasible	Whole lifetime of project	PIU
5	Contract management	Major	Likely	Disclosure of all contracts awards in UNDB for prior review contracts and post review contracts in local newspapers and website of Office of Director of Public Procurement	Whole lifetime of project	PIU/MoAIWD
6	Probability of staff handling procurement leaving the project/transferred	Major	Likely	Continue dialogue with government to retain trained staff	Whole lifetime of project	MoAIWD
7	Fraud and corruption risks (including collusion and outside interference in contracting process)	Major	Likely	<ul style="list-style-type: none"> Disclosure of procurement plan Disclosure of contract awards Creating awareness on effects of fraud and corruption Regular reviews such as PPR, internal audit, external audit 	Whole lifetime of project	MoAIWD
8	Weak complaint redress system	Major	Likely	<ul style="list-style-type: none"> Disclosure of complaint redress procedure through Office of Director of Public Procurement Bi annual report of all complaints received and action taken 	Whole lifetime of project	MoAIWD

Procurement arrangements for Works, Goods, IT and Non Consulting Services and Services

31. Based on the risks identified above the following procurement arrangements are proposed as follows:

(a) **Approach to market:** Based on previous experience, and available local market, the following threshold will be used for open national/international and RFQ bidding (all figures in US\$ million):



Table A2.2: Thresholds for procurement approaches and method (US\$ millions)

Works			Goods, IT, and Non-Consulting Services			Shortlist of National Consultants	
Open International ≥	Open National <	Request for Quotation ≤	Open International ≥	Open National <	Request for Quotation ≤	Consulting Services ≤	Engineering and Construction Supervision ≤
7	7	0.2	1	1	0.1	0.2	0.3

For consultancy services, open international advertisement shall be done for all cases equal and above US\$300,000.

- (b) **Selection method:** For goods, works, and non-consultancy, RFB, RFQ, and DC will be used as appropriate. For Consultancy services, the preferred method would be QCBS; however, other methods including direct selection would be used, as stipulated in the PP. For National Open Competitive Procurement, the country procurement system will be used, subject to conditions as laid down in the PP.
- (c) **Contract strategy:** Goods, services, and civil works will be packaged in economical packages to attract bidders who are qualified and can offer good prices and complete contracts within stipulated period resulting into value for money.

A Procurement Plan shall be developed that includes the summary of the procurement arrangements for each contract in the project.

Contract management

- 32. Under the project, no contract is identified as requiring a mandatory Contract Management Plan.

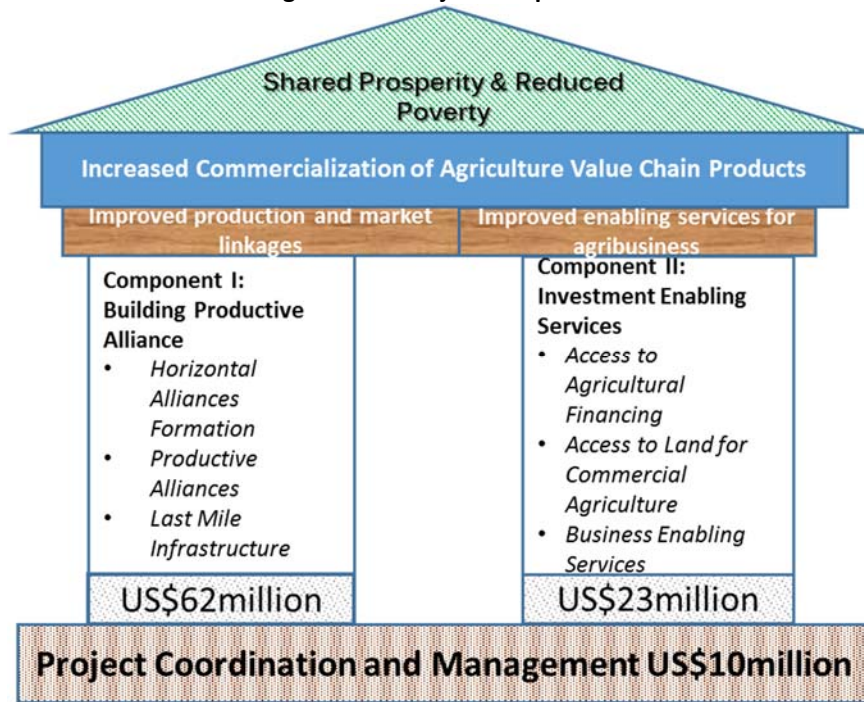


ANNEX 3: DETAILED PROJECT DESCRIPTION

Malawi Agricultural Commercialization Project

1. The **project has four components:** (1) Building Productive Alliance, (2) Support Investment Enabling Services, (3) Contingent Emergency Response, and (4) Project Coordination and Management. Figure A3.1 gives an overview of the components.

Figure A3.1: Project components



COMPONENT 1. BUILDING PRODUCTIVE ALLIANCE - SDR 45.7 MILLION (US\$62 MILLION)

2. This component supports the integration of small-scale and emerging farmers (defined as farmers cultivating not more than 8 ha) into value chains by improving their capacity to finance and execute productivity-enhancing investments and respond to the requirements of end markets and buyers. To that end, the project will implement the high-impact Productive Alliances (PAs) approach. The PA approach strengthens linkages between producers, buyers, and the public sector through the provision of core inputs for productive investments, TA, and business development. It promotes horizontal alliance among small-scale producers to coordinate production and sell produce collectively. Furthermore, the approach incentivizes a vertical alliance between producers and at least one buyer for the provision of a good in a specific value chain through a commercial agreement, with the public sector playing the role of the convener that brings all parties together. The PA approach was introduced during the early 2000s in Latin America, where the World Bank had provided approximately US\$1 billion in financing to support 21 projects in 10 countries by 2015. The PA approach is being successfully tailored to sub-Saharan Africa. Project support to PAs will be complemented by last-mile infrastructure investments in targeted areas.



3. This component will include (a) facilitation and organization of, and capacity building in, POs and PAs (approximately US\$10 million); (b) matching grant investments in POs (approximately US\$30 million); (c) a Partial Credit Guarantee Fund (approximately US\$3 million); and (d) last mile public good infrastructure to facilitate existing POs and PAs and/or stimulate the formation of new ones (approximately US\$18 million).
4. This component aims to improve value creation in the agricultural sector, across multiple value chains, with viable and effective market demand, through the implementation of PA arrangements through several cycles of the PA process (Figure A3.2) during the life of the project. The project will seek to facilitate the "matching" of relatively organized and creditworthy anchor enterprises (off-takers) with aggregated groups of producers (including smallholder associations and producer cooperatives). Given this overall aim, the selection of value chains is determined by the market, signaled by the presence of off-takers that are willing and viable to engage with POs in supplying their markets. This approach has a sustainability advantage, because it permits project participants to avail themselves of dynamic and evolving market opportunities over the life of the project.
5. This component addresses the following constraints: (a) inefficiencies along value chains due to inadequate integration of actors, information asymmetries, and coordination failures among stakeholders; (b) limited reliable access by private sector agribusiness to quality raw material needed to support secondary (value addition) sector expansion in Malawi; (c) limited rural connections to markets; (d) limited knowledge of product specifications required by buyers (particularly sanitary, quality, and technical standards) and modern farming practices; and (e) limited access to finance in agricultural value chains. Addressing these constraints through PAs has proven potential to increase incomes, productivity, commercial viability, and prospects for employment generation.

Subcomponent 1.1: Horizontal Alliances (PO Formation) - US\$10.3 million

6. The objective of this subcomponent is to organize smallholder producers into organizations as well as strengthen the capacities of these newly formed farmer organizations. This activity will be done while carrying out an effective communication and dissemination campaign that informs all potential stakeholders—market-ready POs as well as other POs or individuals wanting to form organizations—of the PA opportunity supported by the project. The communication campaign therefore not only launches the PA process for market-ready POs but helps to identify POs or individuals needing and desiring stronger capacity and/or formation of new farmer organizations, for market-ready production processes, business skills, and marketing skills. In so doing, this subcomponent will create a pipeline of POs that can participate in PA calls for proposals later in the project and, more broadly, contribute to the formation of market-ready POs for greater smallholder inclusion in Malawi's agribusiness development.
7. More specifically, the **communication and dissemination campaign** financed under this subcomponent will inform potential stakeholders about the scope and rules of the project, focusing on the PAs, through local workshops and mass media outlets. As in all PA projects, there will be several rounds of communication, calls for proposals, proposal evaluations, and cycles of disbursement and implementation over the life of the project. The aim is to ensure that small producers, potential buyers, and providers of goods and services become aware of the opportunities presented by the project. Several campaigns will be held, accompanying the calls for proposals. The campaign will clarify the rules of the game and assist in ensuring that potential beneficiaries apply with realistic expectations. Dissemination will take place through local workshops and mass media outlets, including radio spots, and will be delivered in English and local languages in each project region to ensure that information reaches local



groups, including women and young people. The campaign will support consultation to ensure that people of both genders benefit from free, prior, and well-informed consultations through which they are informed of the PDO, components, activities, and rules of the project. Separate workshops and additional TA for small local groups and monolingual women will facilitate their participation in the project. Further effort will be made to reach women by disseminating information at weekly markets and ensuring radio spots are broadcast at times when women are more likely to be listening. At the same time, an effort will be made to reach potential buyers to inform them of the possibilities afforded by the project and to facilitate encounters with POs. This subcomponent will also publish information on different activities and types of information throughout the project's life, such as financing awards, good practices, and results. Information on successful initiatives that can be replicated will be disseminated to share knowledge on improved technologies and feasible business opportunities.

8. **Capacity building support** is a second major feature of this subcomponent. For organizing producers into new POs, a more structured and focused approach will be followed. As many farmer producer organizations that signal interest will be new, in need of substantial support, and as all of them will be new to and unfamiliar with PAs, a needs-based assessment can be done to identify gaps in assets and training that will be considered under the project. The TA and training financed by this subcomponent will include basic accounting and financial management, corporate governance, business plan management, leadership training for the management committee, and procurement. This assistance should help to develop the capacities of producers and their organizations to manage their businesses, improve marketing skills, and negotiate and develop application proposals for future PAs. Special training and assistance will also be provided to design, negotiate, manage, and carry out their PA plans, which will improve their chances of accessing matching grant funding (see Subcomponent 1.2). Culturally appropriate institutional strengthening techniques for local POs will be utilized. Key outputs of this subcomponent will be the formalization of new POs and greater capacity to produce viable business proposals.

Subcomponent 1.2: Productive Alliances – US\$33.3 million

9. The objective of this subcomponent is to implement the PAs in Malawi by financing the business proposals of PAs that are selected following the calls for proposals. A PA is based on a commercial agreement between a project-supported PO and a commercial off-taker.

10. Through a combination of grant financing and provision of technical support, the project will facilitate the implementation of productive partnerships between aggregated farmers and off-takers. Better integration of relationships between producers and off-takers will be mutually beneficial. POs will receive TA to improve production and management of their organizations, grant funding to invest in infrastructure enhancements, and support to access commercial finance. Off-takers will benefit from improved and consistent volumes and quality of supplies received. The PAs will assist in improving economic benefits derived from crop yields, rural accessibility, postharvest gains, access to processing facilities, better organized value chains, and access to new markets. The PCG Fund will be established to reduce risk exposure of financial institutions in financing producer organizations.

Principles of the PA Approach

11. Six principles underpin this strategy and form the foundation for the proposed project.

12. **Productivity and profitability.** Achieving permanent improvements in rural income and well-being will require increased productivity for both agricultural and non-agricultural activities. Rural producers



must adopt new technologies and access greater market intelligence to more efficiently use available resources, thereby ensuring the profitability and competitiveness of their production. Productivity gains and income opportunities have high potential in staple and non-traditional crops alike. The agricultural sector faces significant challenges from trading partners and needs to improve productivity and modify the composition of its basket of products to realize its comparative advantage.

13. **Farmer POs.** The small farmer, acting alone, is unable to effectively compete in a market dominated by intermediaries with asymmetric bargaining power and information. From a private sector off-taker perspective, they are costly partners, as the transaction costs of dealing with numerous small producers can be considerable. Smallholder participation in a commercial value chains, however, can provide stable, reliable, and more remunerative market access. Through their participation in such value chains, organized rural producers will be able to benefit from (a) collective bargaining power in negotiating with other actors in the chain; (b) greater technology uptake; (c) reduced individual risks through risk spreading/sharing/transfer; and (d) become more cost-effective production partners for agribusinesses by reducing transaction costs. The proposed project promotes small farmer participation in associations, seeking to empower them to compete for successful PAs. A PA is the mechanism through which producers with potential can participate in value chains that will help them improve their productivity by giving them better and more equitable access to markets, technologies, and organizations. A business plan is the instrument upon which a PA will be evaluated and supported. Producer associations can be either existing or new, with producers coming together to participate in and benefit from the PAs approach.

14. **Demand.** The proposed project must respond to market demand. There must be a market for the activities to be funded, which will be satisfied by the respective PA. Keeping the project open to all value chains permits the private sector, through its willingness to form a PA, to determine viable market demand opportunities, rather than limiting the selection of value chains at a fixed point in time (project preparation). This approach will maximize the chances of success for the project and for the realization of all prioritized crops that can be found in the National Agricultural Policy.

15. **Business management.** Traditional, low-productivity agriculture requires a transformation toward more modern, commercial agriculture that creates jobs and growth potential. A culture of formally established businesses with contractual obligations will be fostered under the project, within which producers with potential will assume business responsibilities. In this context, the business plan is the crucial instrument.

16. **Shared risk and benefits.** At present, small-scale producers assume the typical risks of farming, as well as the risk of not selling their product, or selling it without recovering costs. PAs provide a way for the different actors of a value chain to share both the production risks and associated revenues. Conversely, high risk (generated by producers' low capacity and market-readiness) prevents agribusiness off-takers from sourcing locally even when it would be cost effective to do so.

17. **Equity.** The project targets small producers with production potential and therefore with potential for creating jobs. Equity among partners in the value chains will be promoted through alliances, so that organized producers can effectively negotiate a more equitable share of the profits.

The Business Plan

18. The PA approach involves three core agents: (1) a group of smallholder producers, (2) one or more buyers, and (3) the public sector (Figure A3.2). Producers are united in a PO—which could be an existing cooperative or association registered under their respective legal codes or a new PO that will be registered



under the Societies or Cooperatives Act to be eligible to participate in PA. Buyers can be active at different levels of a value chain in either commercial or institutional markets. The public sector agent will be represented through the project PIU. These three agents are connected through a business proposition (“business plan”) that describes the capital and service needs of the producers to meet the agreed product specifications and market demand negotiated with the buyer. The business plan proposes improvements that will allow producers to upgrade their production capacities and skills to strengthen their linkage with the markets (that is, the buyers). The realization of this business plan within a PA project will be supported through three core inputs and/or activities directed toward the producers’ needs: (1) productive investments, (2) TA, and (3) business development.

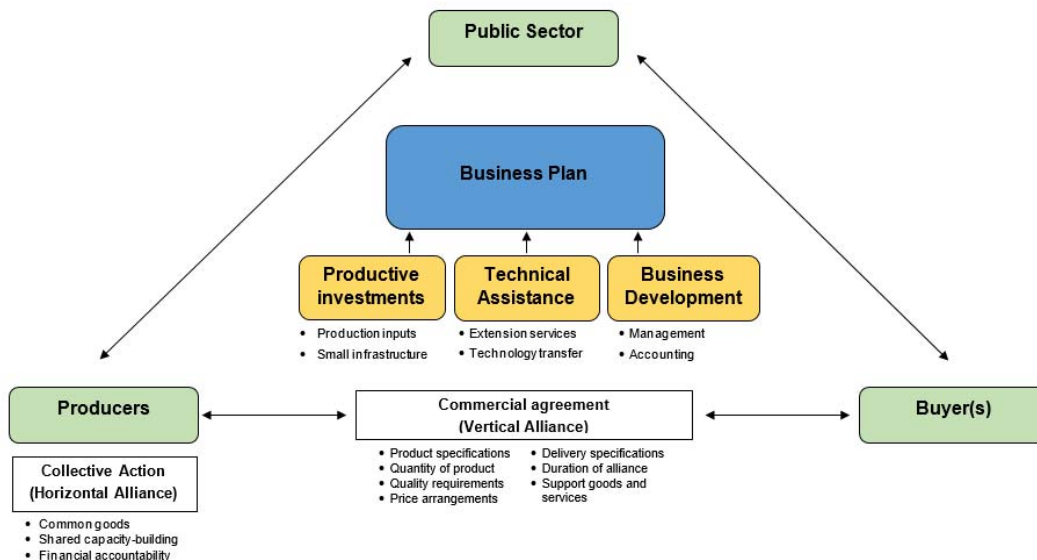
19. **Productive investments** include machinery and equipment, infrastructure (on-farm or off-farm), and production inputs (for example, seed, fertilizer, veterinary supplies) for producers. While the matching grant facility will co-finance the capital investments, POs are expected to self-finance their working capital requirements and raise external finance if necessary. The project will facilitate borrowing from financial institutions through the PCG Fund.

20. **TA** entails the delivery of extension services, technology transfers, and specialized assistance on technical matters related to production, processing, and environmental aspects, as well as market studies.

21. **Business development** focuses on strengthening producers’ business development capacities in management, accounting, business administration, and marketing.

22. PA projects vary in the emphasis on each of these core inputs, but all use support for goods and services to enhance the fulfillment of a business plan.

Figure A3.2: Stakeholders in Productive Alliances in Malawi





Operating Modalities and Project Structuring

23. A **matching grant scheme** will support capital investments in the subprojects (business plans) under the PA. There are clear justifications for using matching grants: (a) market failure in the Malawian financial sector, where long-term finance is unavailable for farmers and farmer organizations; (b) capital investments cannot be self-financed by the target beneficiaries; (c) externalities that generate a development impact on rural livelihoods; and (d) incentives for financial institutions to create new financial services for farmers and farmer organizations. The financial institutions need to be involved from the beginning of the formulation of the productive alliance so that they can gain deeper knowledge of POs and appraise subprojects, in particular the viability of the proposed capital investments. The grant contribution should be limited to up to 70 percent, depending on the strength of the PO. The financial institutions and producers' own contribution is expected to cover the remaining 30 percent. Since liquidity is not a major constraint for most financial institutions, they are expected to use their own funds and lend on commercial terms. The lending decisions will be left to the institutions. The project will have a strong preference for subprojects with external financing, although that is not a prerequisite for obtaining a matching grant. Tailored TA support will be provided by specialized service providers to the financial institutions on term loans for POs. The TA support is a critical enabler, given the limited experience among financial institutions, and it will cover a wide range of subjects related to term loans, including market analysis, product development, delivery channels, credit analysis, and risk management. The matching grant scheme will be managed by the PIU and implemented by a dedicated unit with specialized staff. The additional details of the grant scheme will be defined in the PIM and the operations manual.

24. A **PCG Fund** will be established to reduce risk exposure of financial institutions in financing POs. As noted, the subprojects (business plans) of the PAs will require productive inputs such as seed and fertilizer for agricultural production, which may require external financing if the POs' own funds are not sufficient. Although financial institutions are already providing seasonal loans, their current coverage is rather limited in terms of geographic locations and commodities and therefore may not meet the needs of the project's target beneficiaries. In this scenario, the PCG Fund will compensate the risks involved in reaching new borrowers and commodities. While the existing guarantee facilities already support financial institutions with which the project may work, their service scope does not exactly mesh with the PAs of this project. Therefore, a dedicated PCG Fund is suggested to avoid the transaction costs of coordination and realize the timely provision of credit for planting. The PCG Fund will be managed by a competitively selected third-party organization with a solid track record in managing a guarantee scheme or equivalent. The guarantee will be offered on a first-come, first-served basis and cover up to 70 percent of the risk for pari-passu for loans to smallholder borrowers, including project-supported POs. The guarantee will be priced to cover all administrative costs and risks involved. The project will provide tailored TA support to the financial institutions to ensure high utilization of the PCG. The assistance will address various technical needs in lending to smallholder farmers, including risk management, coordination with value chain actors, and product development and delivery. The additional details of the PCG will be defined in the PIM and the operations manual (see Annex 1 for details on implementation arrangements).

25. A firm, or a combination of firms and consultants, will be contracted to perform a **brokerage service function** and support delivery of the product alliances and support disbursement of funds. These contracts will be performance-based. These providers will raise awareness of the program and facilitate linkages between producer associations and off-takers. Producers will be informed about the program and given encouragement to participate, whether they are in an existing association or whether they are in an association that have been newly formed for the purpose of entering a PA. Producer associations will be



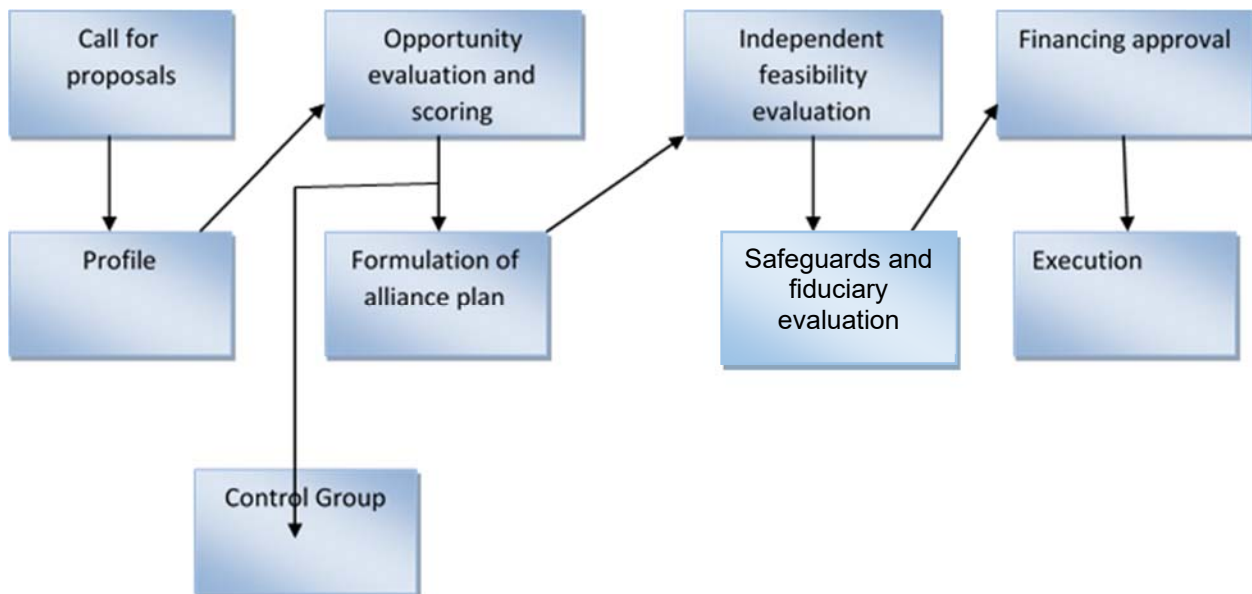
provided with business support to prepare their business plans and liaise with off-takers to agree on contractual terms and conditions. The project may rely on an institutional contractor who has the fiduciary responsibility to subcontract TA and assist in procurement-related matters with producer associations.

26. A firm, or a team of consultants, will be contracted to act as **independent evaluators**, which will be a mix of fiduciary and resource management experts with agribusiness expertise. The independent evaluators will be responsible for periodically evaluating the business proposals that are the basis on which matching grants will be awarded. The process of evaluating the business proposals will be cyclical, with a batch of proposals received for evaluation in the periodic calls for proposals from the farmer POs. The POs will be encouraged to develop these proposals in collaboration with the buyers with whom they aim to enter into a PA agreement. The independent evaluators will ensure transparency and meritocracy in awarding matching grants, based on an objective assessment of the business plans guided by clear selection criteria.

27. For the **selection of PAs**, independent evaluators, as per Figure A3.3, will review business cases they receive relating to PAs to determine their suitability for inclusion in the program. Selection will be based upon a range of criteria:

- (a) Technical feasibility (for example, production capacity and quality).
- (b) Financially viability (for example, financial sustainability beyond duration of project support).
- (c) Market linkage strength (for example, quality of market analysis, identification of TA needs, participation in marketing events).
- (d) Alliance partners' capacity (for example, quality of production planning, quality control, identification of production bottlenecks).
- (e) Social aspects (for example, potential for job creation, belonging to a disadvantaged group).
- (f) Environmental sustainability (for example, promotion of improved or climate-efficient production practices) of the proposed subproject.

Figure A3.3: Implementation Flow of Productive Alliance in Malawi





28. The government's financial incentives to POs are capped at US\$2500 per producer family,²⁸ based on the typical costs a subproject would incur and the current income per capita in Malawi. Any partnership is expected to include at least 20 emerging farmer households, and at least 80 percent of these need to fulfill the requirements of an emerging, poor farmer as defined by the project, based on hectares under cultivation, total assets, and annual income where available. The POs will be allowed to include a medium-scale farmer as a leader/organizer, where appropriate, in line with best practice in places like Colombia and Vietnam. The operational manual will describe the incentive mechanism in detail. The financial incentive can be used for investment expenditures, operational costs, TA, and certifications. The objective is to have over 300 PA partnerships in operation by Year 5, having reached approximately 100,000 farmer households.

Subcomponent 1.3: Last-mile Infrastructure for Productive Alliances – US\$18.4 million

29. This subcomponent aims to provide an infrastructure envelope that will invest in last-mile public good infrastructure to enable the creation of more PAs (separate from the direct investments in PAs through matching grants). This investment envelope will focus on infrastructure with a prohibitively high cost for PAs, which will yield benefits exceeding those to the PAs and reach broader surrounding rural communities, and in addition will propel otherwise unfeasible PAs over the sustainability and profitability line. As such, this subcomponent aims to be an enabler of PAs but will be managed separately. The infrastructure investments will also help POs to manage risks, especially drought-related risks, and hence reduce the vulnerability of participating farmers. In addition, these infrastructure investments will be built to ensure sustainability in the face of potential future climate hazards (such as the extreme precipitation and droughts foreseen in the climate risk screening tool) to make sure farmers do not lose access to economic activities. The activities of this subcomponent will be to (a) develop/rehabilitate small-scale irrigation infrastructure benefiting POs in PAs to accelerate the pace of diversification, intensification, and commercialization of agricultural production; (b) construct/rehabilitate feeder roads to improve access to production areas; (c) improve access to electricity in project areas, and (d) supply water as appropriate to realize the results of the PA.

Irrigation

30. The last-mile irrigation infrastructure provided under this subcomponent will allow access to water on a small scale to enable the main project activities. The investment will focus on highly productive areas or those with high production potential extending into the broader surrounding communities. Interventions will include small-scale rehabilitation of existing but non-functional irrigation systems as well as spot improvement works for small irrigation pumps or the provision of new small-scale systems and drainage structures. The project will adopt a contractual approach involving communities (POs/cooperatives and WUAs), MAIWD, districts, and the private sector; the contractual approach provides a transparent and accountable framework for joint and mutual commitment to improving the performance of small-scale irrigated agriculture required to honor agreements to provide a continuous supply of produce for PAs. Schemes will be selected in accordance with selection criteria, including (a) business orientation of investment and associated activities; (b) readiness for investment, (c) stakeholder interest and commitment, (d) proximity to market and/ or potential to enter into a PA; (e) technical, environmental, and social sustainability; and (f) ERR. The project will finance costs associated with

²⁸ Each producer family is allowed to participate in one subproject through the lifetime of the project.



ensuring sustainability of investments through stakeholder mobilization and capacity strengthening. This capacity strengthening will include assisting farmers to incorporate climate risks. The POs benefitting from both the development and rehabilitation of the schemes will be required to make a contribution toward the costs of works both in kind or cash. The amount (proportion) of the contribution will be detailed in the PIM.

Feeder Roads

31. This subcomponent will include last-mile rural road infrastructure providing access on a small scale as an enabler to the main project activities. The investment will focus on access to highly productive areas accommodating project-supported PAs or POs or those with high production potential reaching broader surrounding communities. The rehabilitated feeder roads will enable supported POs to get their products to their clients. Interventions will include small-scale rehabilitation and spot improvement works for short links, including drainage structures. This activity will be implemented by the PIU in close liaison with the Ministry of Transport and Public Works and the Ministry of Local Government and Rural Development through District Councils. The selection criteria will be developed in the PIM. The beneficiary PO will have primary maintenance responsibility, and its members will establish maintenance clubs together with rest of the community members and will be trained by the project.

Electricity Access

32. Investments will be capped at US\$200,000 (although the average investment is expected to be in the US\$10,000–20,000 range) per subproject, and will need to fall under the predefined list of investments options disclosed a priori by the project's safeguards. Subprojects will be selected based on their alignment with existing PAs and their ERR, and the details of the selection criteria, procurement arrangements, and M&E will be included in the PIM. For POs that are constrained by lack of electricity, the project will finance step-down transformers and low voltage extension lines for a distance not exceeding 3 kilometers and a cost not exceeding US\$20,000, and will be provided on the condition that all other alternatives have been exhausted. The project will also look at off-grid solutions that can serve the purpose.

33. The project will assess the feasibility of the last mile infrastructure interventions. This assessment will include an evidence-based justification for public investment (such as market failure) and clearly describe the sustainability of the interventions. In addition, care will be taken to ensure that proposals include a detailed plan for how facilities and equipment will be operated, managed, and maintained.

34. To ensure sustainability of the last-mile infrastructure, the project will consider the following: (a) engaging beneficiaries in the determination of the infrastructure and forming community maintenance clubs; (b) monitoring the quality of the interventions through the PIU and required TA; and (c) working with government and key stakeholders to put in place the maintenance strategy for the last mile infrastructure. The project will enter into active agreements with the PO and government to ensure that the infrastructure is of good quality, meets the intended objectives, and is well maintained in a sustainable manner.

Water Access

35. This subcomponent will support POs and other value-chain actors that are considering venturing into value addition/agro-processing and require certification by MBS and ISO. The investment will focus on connecting a processing facility to a source of potable water (clean water). In the event that connecting to a potable water source is not possible, then support will be directed toward provision of a borehole

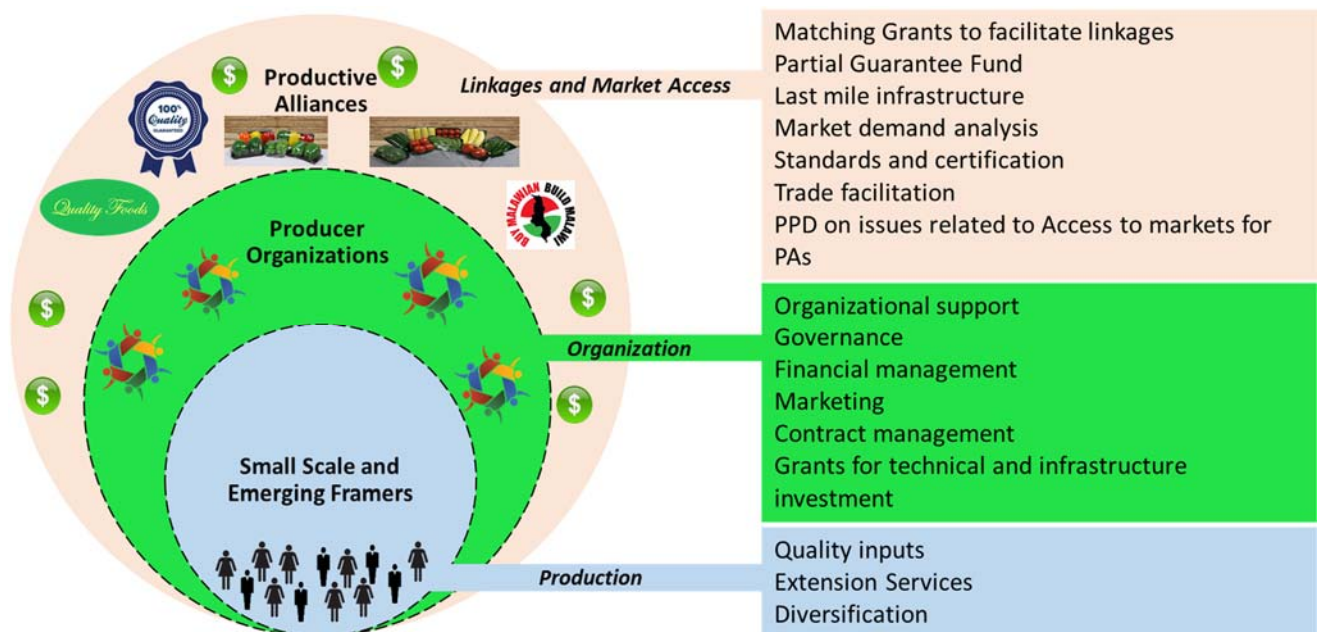


and all other connecting accessories such as submersible pumps, solar panels, and tanks. The project will carry out an ESIA and develop an ESMP for the site. This activity will be implemented by the Department of Water in close liaison with the Department of Environmental Affairs.

COMPONENT 2: SUPPORT INVESTMENT ENABLING SERVICES – SDR 17.0 MILLION (US\$23.0 MILLION)

36. The objective of Component 2 is to support business enabling services that improve the business climate. These services will include land tenure security, land management and administration, access to agricultural finance, and other business enabling services. This component will address the systemic gaps and challenges that are constraining investment into the agribusiness sector, preventing the sustained growth in commercialization and agribusiness development envisioned by the government strategy and by the PDO. Unless addressed, these constraints may impede the formation of POs and prevent PAs from operating optimally. Figure A3.4 summarizes how the investment enabling services envisaged under this component, along with the support provided for PO and PA formation under Component 1, strengthen value chain actors along the continuum from farmers to POs and PAs.

Figure A3.4: Support and investment enabling services provided along the farmer, PO, and PA continuum under the proposed project



Subcomponent 2.1: Access to Agricultural Finance – US\$7.3 million

37. **Inadequate access to agricultural finance is consistently mentioned as one of the critical bottlenecks to agriculture commercialization in Malawi.** The objective of this subcomponent is to strengthen the existing warehouse receipt financing system and provide farmers with additional opportunities to access postharvest lending. Malawi has a relatively developed warehouse receipt financing system with two commodity exchanges, the Agriculture Commodity Exchange for Africa (ACE) (a private entity) and the Auction Holdings Commodity Exchange (AHCX) (a parastatal). Warehouse receipt financing has been



growing but remains limited in terms of the amount of loans provided and number of participating financial institutions. The limited capacity of banks with respect to agricultural commodities and warehouse receipts is one of the biggest obstacles. In addition, the participating banks are fully exposed to various risks related to handling and storing the commodities. This risk exposure translates into higher interest rates and a ceiling on credit of up to 70 percent of the value of the stored commodities, which are among the key deterrents for farmers to use warehouse receipt financing. For that reason, a mitigation mechanism such as insurance and/or an indemnity fund is required to assume the risks related to mismanagement of stored crops in certified warehouses. Smallholder' limited capacity also prevents their active participation in the system, so the benefits of storing crops in warehouses are not fully realized. Annex 6 provides more details on the warehouse receipt system.

38. The proposed project will introduce risk mitigation measures to strengthen the credibility and attractiveness of Malawi's warehouse receipt system. International experience indicates that insurance and/or an indemnity fund are useful tools to protect the value of the stored crops from various risks, including losses in crop quality and quantity. While some initiatives have been tried among stakeholders in Malawi, no concrete measures have been introduced to date. The project will provide TA to analyze the existing structure in the country, examine international experiences, and recommend suitable risk mitigation mechanisms to strengthen the Malawian warehouse receipt system. Key considerations include an appropriate incentive structure to enhance the trust of the main players; a common mechanism to cover two commodity exchanges in the country; and sustainability beyond the project. The project will facilitate consensus-building among the stakeholders and continue to support implementation of the warehouse receipt system through TA and the establishment of the risk mitigation mechanism.

39. The project will provide TA and capacity building to POs under the PAs (Component 1) and to other farmer organizations and SMEs on using warehouses and the warehouse receipt system. The TA will be designed to build on ongoing efforts to encourage farmers and SMEs to use warehouses as an additional tool to improve their livelihoods. In this context, various partners and stakeholders in Malawi could potentially collaborate, including ACE, AHCX, and non-governmental organizations implementing similar development efforts. Among others, ACE has recently launched a rural strategy to increase support to farmers to store crops at the warehouses and trade their crops on the commodity exchange. The knowledge products and experience of ACE provide a good entry point for the project to extend similar capacity development support to project beneficiaries. The TA will also explore feasible solutions to increase access by farmers and SMEs to warehouses in rural areas. Warehouses are concentrated in major cities due to the perceived risks of investing in rural warehouses, and financial institutions are unwilling to provide long-term financing for rural warehouses. Nor do other private investors such as agribusiness companies risk investing their own capital in such facilities. The limited management capacity and low capacity utilization of rural warehouses makes the investment even riskier and less profitable. Given the complexity of the challenges, collaboration with various stakeholders is essential to put forward potential solutions. In response to this situation, the project will assess the critical challenges, ongoing efforts, and potential solutions for increasing use of rural warehouses, and identify concrete engagement models for the project to pursue. Based on the results of the assessment, the project will implement the identified solutions based on the agreement with stakeholders.

Subcomponent 2.2: Access to Land for Commercial Agriculture – US\$7.3 million

40. To increase the likelihood that agricultural investment will lead to improved agricultural production and industry, AGCOM will pilot aspects of the new legal framework for land—which includes new laws on Customary Land (2016), Registered Land (2017), and Acquisition of Land (2017)—and other international



land principles. This subcomponent is very important to setting the pace for the project's production and investment activities, especially because farmers participating in the matching grant program must have secure land tenure to access financial support.

41. The specific objective of this subcomponent is to support the policy and regulatory environment aimed at increasing access to land and tenure security for commercially oriented smallholder and commercial farmers, and other actors in agricultural value chains. MITC was established to promote Malawi as an ideal destination for trade and investment in Africa and beyond, and Malawi is a signatory to the VGGT and RIA. Yet outdated land laws and a lack of capacity to implement the new laws (among other factors) made it challenging to embrace implementation of the VGGT and RIA and discouraged investment activities for which secure land tenure was important. Therefore the project will:

- *Strengthen the capacity of stakeholders (MoLHUD, MoITT, MITC, MoAIWD, and private sector institutions) to implement the new land bills in the context of PAs.* The VGGT and RIA will be duly integrated within this capacity-building support, which TA will be contracted to provide.
- *In line with the new land laws, support the registration of land processes and equipment for POs (selected based on need) to ensure land tenure security.* The project will work closely with MoLHUD to register plots and provide titles to the respective POs. The project will cover the costs related to all processes to ensure that this land titling happens. Land rights for women and youth in particular will be protected and strengthened.
- *Support MITC in its mandate to make land available for commercial investments in the agricultural sector, in line with the new land bills.* MITC will be connected to the Land Information System. MoLHUD is conducting a performance study of estates, which will identify land for possible reallocation. The project will strengthen multisectoral linkages and operationalization of the Land Information and Management System by providing TA and equipment to MITC and MoLHUD.

42. The Customary Land Law (2016) states that Malawian citizens are eligible to own land. The law provides for individual and joint partnership registration of estates held under customary arrangements, and those estates may be either inherited or transmittable by will. Moving forward, these provisions will make it easier for households headed by youths and women to own land and protect their land rights.

Subcomponent 2.3: Support for Business Enabling Services – US\$8.4 million

43. This subcomponent will support an improvement in the regulatory environment to facilitate agribusiness and the commercialization of agriculture. Activities in this subcomponent will be enhanced through complementary TA executed in partnership with the Government of Malawi. The modality of World Bank Group TA through IFC advisory projects, using IFC-administered trust funds, allows for hands-on consultation with the government on policy reform and the drafting of regulations, the provision of targeted institutional capacity building, and the provision of discrete analytical work supporting agreed development objectives. See Annex 7 for a detailed list of T&C advisory projects.

44. In particular, this subcomponent supports and facilitates (a) the economy-wide Public-Private Dialogue (PPD) Forum and (b) improved standards and certification services (in terms of operations and regulations) for agribusiness from MBS. Trade facilitation is vital to the commercialization of agriculture; it is addressed under a separate IFC advisory project that complements this work. The Project will also support MITC on initiatives to promote and facilitate trade and investments in Malawi.



45. Support for the economy-wide **PPD Forum**²⁹ will include support to create an agribusiness-specific taskforce to address issues of commercialization, prioritize key challenges, and identify international good practice that can be adapted to the Malawian context. PPDs have championed reforms critical to Malawi's economic growth and diversification and have expanded opportunities for the private sector to participate, but sector specific PPDs have performed less well than the economy-wide PPD Forum.

46. Some of the key challenges to effective PPD work are already known: they include ineffective representation of small, micro, and informal enterprises and inadequate capacity to research, analyze, and frame issues in a way that enables compelling cases to be presented for reform. The World Bank Group will provide advisory services to better support sector specific PPD in Malawi, including hands-on support to subsector leadership for researching, framing, and communicating key issues affecting agricultural commercialization.

47. Efforts related to **MBS** will address shortcomings that limit the development of more commercial agriculture and agribusiness. For example, MBS lacks capacity to execute its responsibilities in a timely manner, and efforts are hampered by conflicting technical regulations from MBS and other government offices. Inspection responsibilities related to food safety are often duplicated by MoAIWD. Businesses are charged fees for service that may not be appropriate. These costly inefficiencies for suppliers and other agribusinesses render them less competitive. The efficiency and capacity of MBS will be strengthened by: (a) introducing risk assessment, improving market surveillance, and incentivizing agribusinesses to take greater responsibility for compliance with standards and regulations; (b) making testing and certification more efficient; (c) strengthening, coordinating, and improving the implementation of technical regulations in MBS and other relevant ministries or agencies; and (d) automating certification processes. This work will be complemented by planned World Bank Group advisory services to provide advice on policy and procedural changes directly to MBS. Standards and certification processes will be analyzed to determine if they impose different constraints on men and women.

48. In addition to PPD and more accessible, efficient implementation of standards and certification, **trade facilitation** is a critical element for obtaining productive inputs and entering new markets, both of which are necessary for commercial agriculture to grow. The proposed project has no specific trade component, however. The Southern Africa Trade and Transport Facilitation Program (P145566) is laying the foundation for improved trade through investments in modern trade systems and building trade facilitation capacity for governments. To support that effort while focusing more closely on increasing the impact of trade facilitation on commercial agriculture, the World Bank Group seeks to implement a complementary Trade Facilitation technical assistance project that will (a) provide implementation support for the new trade systems (National Single Window), (b) facilitate adoption of the World Trade Organization's Trade Facilitation Agreement, and (c) support reforms in policy and implementation related to issuing trade permits (import and export), examine taxes related to agricultural trade and recommend reforms, support improved SPS certification procedures, and identify non-tariff barriers that limit agricultural trade.

49. Table A3.1 summarizes two areas of investment that will be financed under Component 2—lending and technical advisory assistance. For simplicity, the budget for each area has been aggregated by adding the focus areas.

²⁹ Previously supported under ASWAp-SP.



Table A3.1: Malawi Agricultural Commercialization Project investment and advisory support program

Focus area	Investment: Lending	Advisory services: Technical Assistance
Finance and warehouse receipt (WHR)s	<ul style="list-style-type: none"> Establishment of the risk mitigation mechanism (US\$2 million) Potential solutions to increase access of farmers and SMEs to warehouse in the rural areas (US\$2 million) Training to SMEs and farmer organizations 	<ul style="list-style-type: none"> Development of warehouse certification and licensing system Technical assistance (TA) to identify potential risk mitigation mechanisms to strengthen the Malawian warehouse receipt system Policy advice on adoption and implementation of the above risk mitigation strategy (e.g., indemnity fund or other solutions) Capacity building and training on implementing WHR regulatory authorities, especially for warehouse regulators Build awareness of warehouse receipt law and regulations among stakeholders
Improved access to land for commercialized farming	<ul style="list-style-type: none"> Provide training to government offices on enforcement of Voluntary Guidelines on Responsible Governance of Tenure and Principles of Responsible Investment in Agriculture and Food Systems Support good land management practice, including land identification, consolidation, survey, acquisition, and so on Support for Land Information Management System operations 	<ul style="list-style-type: none"> Support to Malawi Investment and Trade Centre for identification of land suitable for commercial investment
Improved Malawi Bureau of Standards (MBS)	<ul style="list-style-type: none"> Establishment of testing laboratories in one secondary city Laboratory equipment to support operations of the new lab Support automation of certification processes and improvement of traceability systems 	<ul style="list-style-type: none"> Policy advice and consultancy on regulations enhancing risk assessment procedures, improved market surveillance, improved testing and certification efficiencies, etc. Policy advice and support for addressing conflicting technical regulations between MBS and other government offices Support for peer-to-peer learning and access to international good practice Capacity building for MBS staff and management for implementing policy reform
Improved trade of agriculture products *The Southern Africa Trade and Transport Facilitation (SATTF) Program (P145566) has an objective of reducing costs of cross-border trade (Component 3)	Under SATTF: <ul style="list-style-type: none"> Upgrade National Single Window system to ASYCUDA World (with support from African Development Bank) Feasibility study on, and upgrading and modernization of, border post facilities at Songwe, Dedza, Mwanza, and Muloza, including reduction of agencies at the border from 14 to 5 through improved interagency coordination Under the Commercialization of Agriculture Program: <ul style="list-style-type: none"> Feasibility study for development of Agri-park / Agri-zone to facilitate agri export trade and investment 	<ul style="list-style-type: none"> Trade Facilitation Assessment of the World Trade organization, including recommendations on the accountability, harmonization, and simplification of trade process and procedures Analysis and policy advice on issuance of food-related import and export permits; taxes on key agribusiness inputs such as mechanical equipment and packaging materials; issuance of sanitary and phytosanitary certification; and non-tariff barriers related to agriculture Analysis of logistics for getting agricultural products to market Policy support and consultation on streamlining procedures for permits and licenses related to trade in agriculture Access to international good practices related to border management for agricultural trade,



		including consultants and study tours <ul style="list-style-type: none"> • Capacity building and training to support regulatory reform implementation and improved institutional efficiencies • Communication of project activities and results to stakeholders • Publication of guides and manuals supporting food product exports by small and medium enterprises • Support for conference/workshop participation
Public Private Dialogue (PPD): Economy-wide and the agribusiness subsector	<ul style="list-style-type: none"> • Support for economy-wide PPD Forum: Secretariat, meetings, salaries, related expenses • Support for Agribusiness Forum: Secretariat, meetings, salaries, related expenses 	<ul style="list-style-type: none"> • Analytical policy research and assessments on topics identified by forums • Communication of forum activities and results • Support for conference/workshop participation on key topics for forum leadership • Capacity building to forum leadership

COMPONENT 3: CONTINGENT EMERGENCY RESPONSE COMPONENT – SDR0 MILLION (US\$0 MILLION)

50. This contingent emergency response component is included under the project in accordance with OP/BP 10.00, paragraphs 12 and 13, for situations of urgent need of assistance. This will allow for rapid reallocation of project proceeds in the event of a natural or man-made disaster or crisis that has caused or is likely to imminently cause a major adverse economic and/or social impact. To trigger this component the government needs to declare an emergency or provide a statement of fact justifying the request for the activation of the use of emergency funding. To allocate funds to this component the government may request the Bank to reallocate project funds to support response and reconstruction.

51. If the World Bank Group agrees with the determination of the disaster and associated response needs, this component would draw resources from the unallocated expenditure category and/or allow the government to request the Bank to re-categorize and reallocate financing from other project components to cover emergency response and recovery costs. This component could also be used to channel additional funds should they become available because of an emergency.

52. Disbursements would be made against a positive list of critical goods or the procurement of works and consultant services required to support the immediate response and recovery needs. A specific Emergency Response Operations Manual will apply to this component, detailing financial management, procurement, safeguards, and any other necessary implementation arrangements.

COMPONENT 4: PROJECT COORDINATION AND MANAGEMENT – SDR7.4 MILLION (US\$10.0 MILLION)

53. This component will finance activities related to the coordination and actual implementation of the project activities, including costs for: (a) project management/coordination, including procurement, financial management, M&E, mitigation of potential negative social and environmental impacts, and communication about project implementation and results; (b) sector and cross-sector coordination with the agriculture, water, industry, trade, and lands plans and frameworks; and (c) facilitating inter-ministerial collaboration on tackling implementation challenges. Given the multisectoral nature of the project, a PIU will be established to handle day-to-day activities. The project will also ensure that project decision-making bodies at all levels include both men and women.

54. A PSC will be established to provide overall guidance and will include MoAIWD, MoITT, and MoLHUD. Private sector representatives (POs and investors) will also be part of the PSC.



55. **Cross-cutting issues:** The project will support mainstreaming of cross-cutting issues (gender, nutrition, and CSA) throughout the above components as follows:

- (a) **Gender:** The project will help to close gender gaps in productivity and women's access to agriculture inputs and services. It will also seek innovative ways to reduce women's work burden (such as through labor-saving technologies and childcare arrangements). The activities targeting women will be demand-led and based on analysis of women's and men's constraints and opportunities under each component. The project will ensure that both men and women are enabled and encouraged to participate in and benefit from project activities (Annex 6). The results framework will include indicators to monitor outcomes of the gender actions. The results of gender actions are monitored and corrective actions are taken, if needed.
- (b) **Nutrition:** The project will support nutrition interventions in line with the Malawi National Nutrition Plan, through the diversification of crop and livestock production (including irrigated production); the identification, validation, and dissemination of nutrition-dense crop and livestock technologies; increased attention to storage and processing of foods; and awareness of nutritional issues at the household level.
- (c) **Climate Smart Agriculture (CSA):** To mitigate some of the weather related risks to the sector, the project will support adoption of climate-smart and environmentally friendly practices through its support to farmer organizations. The focus will be on sustainable intensification to increase yields and productivity, and on improving the resilience of farmers and farming practices. The project investments in conservation agriculture, agroforestry, and sustainable intensification will also bring mitigation co-benefits through reduced GHG emissions and improved soil carbon sequestration. The project will systematically ensure that all activities and investments financed include climate-smart and good environmental management practices, and that the technical support and financial incentives provided by the project facilitate the wide adoption of such practices. To raise awareness of agricultural risks and risk management practices among beneficiaries, the business plans developed by participating cooperatives will include a section on risks to the proposed plan and intended risk management to minimize the impacts of those risks. Climate-smart considerations will be taken into account in awarding matching grants.

Capacity building for farmer organizations will also include TA for climate-smart value chain development, focusing on: strengthening the seed systems and adoption of stress-tolerant varieties; identifying measures to mitigate weather-related production risks (rainwater harvesting techniques, drip irrigation, sustainable use of fertilizers and pesticides); promotion of conservation agriculture and agroforestry practices; and improved postharvest management. These interventions would be part of the project's broader support to farmer organizations, supplemented by advisory support in technical areas and carried out by capable farmer producer organizations.



ANNEX 4: RESULTS FROM PRODUCTIVE ALLIANCE PROGRAMS IN LATIN AMERICA

Table A4.1: Numbers of PAs and direct beneficiaries (planned and at completion) and financial internal rates of return for PA programs in Latin America

Project	Alliances/ subprojects (appraisal target)	Alliances/ subprojects (completion)	Direct household beneficiaries (appraisal target)	Direct household beneficiaries (completion)	Sample	Average financial internal rate of return* (%)	Average financial internal rate of return** (%)	Amount at completion (US\$ millions)	Of which IBRD/IDA (US\$ millions)
Bolivia Rural Alliances Project (PAR I)	675	768	33,700	28,527	535 alliances	49	35	79.74	IDA - 59.94
Brazil Alto Solimoes	50	26	3,500	3,252	26 subprojects	14***	n.a.	2.4	—
Brazil Pará	200	41	36,000	3,148	10 subprojects	n.a.	n.a.	—	—
Brazil Sergipe	n.a.	247	n.a.	10,800	23 subprojects	39	n.a.	—	—
Colombia PAAP I	100	136	10,000	11,714	23 alliances	23	19	30	IBRD - 22.00
Colombia PAAP II	300	725	25,500	42,552	56 alliances	29	27	346 (IBRD - 30)	IBRD - 30.00
Guatemala PDER	200	174	30,000	18,115	39 alliances	20	17	45	IBRD - 29.14
Panama PRORURAL	6,014	130	5,000	4,577	12 alliances	11	n.a.	46.90	IBRD - 39.40

Note: * Includes only direct costs; ** Includes direct and indirect costs (i.e., proposal preparation, TA, project management, and monitoring); *** economic and financial analysis not clear on which costs were included in the analysis, but it is assumed that only direct costs were included.



Table A4.1: Program description and key findings for PA programs in Latin America

Project	Description	Key Findings
Bolivia Rural Alliances Project (PAR I)	Test a model to improve accessibility to markets for poor rural producers in selected pilot areas by (a) promoting strategic PAs between different economic actors at the local level, (b) empowering rural producers through the development of self-managed grassroots organizations, (c) increasing access to productive assets and technology, and (d) promoting more effective, responsive, and accountable service organizations at the local level	(a) 60% higher sales volume marketed per rural productive unit compared to start-of-project baseline (b) 29–39% higher sales volume for project beneficiary POs than control group
Brazil Alto Solimoes	Multisectoral operations, in which PAs constitute only one of several project components	At least 15% increase in household income of 1,800 households
Brazil Pará	Multisectoral operations, in which PAs constitute only one of several project components	30% or higher increase in household income for 43% of treatment group, compared to 35% in the control group
Brazil Sergipe	Multisectoral operations, in which PAs constitute only one of several project components	Average increase of US\$986 per household from productive subprojects
Colombia PAAP I	The main intervention mechanism consisted of matching grants for participating smallholder POs to cofinance productive investments, complemented by TA, supervision, and training for the productive partners.	US\$280 increase in annual incremental beneficiary household net income
Colombia PAAP II	Demand-driven partnership schemes with the commercial private sector through increasing rural competitiveness and building up rural entrepreneurship in poor rural communities in a sustainable manner	COP572 billion in sales value generated
Guatemala PDER	The PDO was to (a) improve the competitiveness of rural productive supply chains with strong indigenous participation and (b) strengthen the institutional capacity of the public entities participating in the program for the adoption of a territorial management model with indigenous participation.	(a) US\$16.31 million increase of total sales of rural productive supply chain alliances (b) 20% increase in sales for alliances that had received collective productive investments compared to alliances that had received only TA and other investments
Panama PRORURAL	Contribute to increased productivity among organized rural small-scale producers, through their participation in PAs, while ensuring the sustainable use of natural resources and the conservation of globally important biodiversity	(a) 22.3% increase in sales receipts by beneficiary producers (b) 80% increase in net revenues of beneficiary POs (c) 69% average incremental increase in profits per producer per year from US\$698 to US\$1,180



ANNEX 5: ACCESS TO AGRICULTURAL FINANCE IN MALAWI

CONTEXT OF ACCESS TO AGRICULTURAL FINANCE IN MALAWI

- 1. The Malawian financial sector is dominated by a small number of commercial banks, which provide credit mainly to low-risk borrowers including the government and large corporations.**³⁰ Banks accounted for 61 percent of total assets of formal financial institutions and 95 percent of total credit from formal financial institutions in 2014. The top three banks have about 60 percent of all banking assets, loans, and deposits. Their credit was concentrated among a limited number of borrowers, including the government. In 2014, six banks had more than 25 percent of the credit exposure to the single largest client. Twenty percent of banks' total outstanding credit was held by the government. Microfinance institutions (MFIs) and savings and credit cooperatives (SACCOs) play minor roles in Malawi, accounting for 4 percent and 1 percent, respectively, of the total credit to the economy in 2014.
- 2. Formal financial institutions have very limited market penetration in Malawi, both in urban and rural areas.** While the Global Findex database 2014 reported that 66 percent of the population had borrowed money in the past year, only 6 percent borrowed from formal financial institutions. Sixty percent of the respondents had saved money, but only seven percent saved at formal financial institutions. These large gaps suggest that informal financial service providers respond to the immediate financial needs of the Malawian people, but at the same time, there are substantial business opportunities for formal financial institutions to provide more advanced financial products and services.
- 3. Bank lending to agriculture has largely concentrated on seasonal lending for tobacco production.** More than 50 percent of the agricultural loans from the leading banks still go to tobacco production. These banks benefitted from a proven value chain financing arrangement among off-takers, tobacco farmer organizations, and technical assistance providers such as the Agricultural Research and Extension Trust. Bank financing for farmers was enabled by well-organized farmers and a strong commitment from tobacco companies, and loan recovery was channeled through off-takers, which lowered the transaction costs.
- 4. In response to the recent decline of the tobacco market, these banks have been trying to diversify their loan portfolios into other commodities such as tea and sugar, despite the risks involved.** Some of the emerging models for commodities other than tobacco are being tested and scaled up by several banks, including First Merchant Bank, CDH Investment Bank, and the Opportunity Bank of Malawi (OBM). For example, Opportunity Bank provides seasonal loans to over 11,000 farmers and farmer organizations for tea, sugar, legumes, and other crops through value-chain financing arrangements. The OBM often pays input providers directly for farmers and deducts loan repayments from off-takers. As a standard practice, 25 percent cash collateral is usually required, which is often compensated by other physical collateral, a group guarantee, and/or a partial credit guarantee. In most instances, default rates have been relatively low (5–10 percent). New Finance Bank is starting a pilot value-chain financing project for a small number of farmers through partnerships with off-takers, non-governmental organizations, and donors. In these value-chain financing structures, donors such as the United States Agency for International Development (USAID) provide grants for technical assistance (for example, contracting with non-governmental organizations to strengthen group dynamics and management) and a partial credit guarantee for bank loans.

³⁰ IMF (2015), "IMF Country Report No. 15/346, Malawi."



5. **MFIs and SACCOs in Malawi cater to the urban population. Three rural-focused MFIs and one cooperative currently provide specialized financial services for agricultural production.** For example, CUMO (rural MFIs) and MUFUNA (a rural financial cooperative), which evolved into financial institutions based on village savings and loan associations (VSLAs), provide seasonal loans for agricultural production as well as capacity development training to 84,500 farmers and 18,000 members, respectively. They tend to provide smaller loans than banks and usually require a smaller guarantee (15 percent of cash collateral and a group guarantee) because of their proximity to clients and group lending model.
6. **The interest rate applied to smallholder lending is on the high side but has not been a deal breaker, at least in the experiences reported to date.** Interest rates for seasonal loans from banks range from 39 percent to 49 percent per year.³¹ MFIs and SACCO seem to charge higher rates of 55–95 percent per year (sometimes as much as 142 percent). Although this interest rate certainly would appear to prevent projects with prospects of lower returns from borrowing, the majority of farmers repay these loans and grow their businesses successfully. This experience may suggest that the profit margin in agricultural production (and off-farm activities) is sufficiently high to cover the interest rate. In addition, the duration of the seasonal loans is usually 8–10 months, which brings down the interest rate that borrowers actually pay.
7. **Partnerships among various value-chain actors seem to be one of the most effective enablers of current smallholder financing schemes.** For banks, off-takers and TA providers are the critical partners that can secure markets for agricultural products and develop the capacity of farmers and their organizations. Banks prefer working in commercial crops suitable for tight value chain arrangements. Growth/profitability of the commodities and donor support are equally important considerations. In their lending models, MFIs and SACCOs place a strong emphasis on TA for borrowers, which include financial literacy, business management, and access to markets. On the other hand, partnerships with off-takers still seem rather limited, partly due to their proximity to customers, lowering transaction costs for repayment.
8. **Financial institutions still face unique challenges in agricultural lending.** Commercial banks remain rather conservative in their perspective on financing smallholders, mainly because of limited experience with non-tobacco commodities and defaults in past attempts at lending for other commodities. Last-mile delivery of financial services, especially in remote areas, is still despite the increasing use of ICTs in banking in recent years. All rural MFIs are non-deposit-taking institutions and rely on limited donor grants and expensive bank loans. As a result, their ability to raise capital to expand their lending operations has not kept pace with the growing demand from smallholders. Financial cooperatives suffer from limited management capacity. Their growth is inherently slow due to their membership-based funding structure.
9. **No financial institutions provide term loans to smallholder farmers and farmer organizations for their capital investments.** Some financial institutions contend that term lending can be considered only after several successful repayments of short-term loans. That said, many institutions have shown interest in providing term loans if investments are partially covered by grants (for example, through matching grant scheme). Rural MFIs and SACCOs see viable business opportunities in term loans for farmers and farmer organizations based on the strong demand from existing clients. A matching grant program could facilitate their entry into term lending.

³¹ According to the Reserve Bank of Malawi, annual inflation in 2016 was 20 percent, and the average interbank lending rate was 27 percent. The base lending rates of interviewed commercial banks was around 35 percent. With cash collateral of 15–25 percent, the effective interest rate becomes higher than the rate offered to borrowers.



10. **Multiple donors are working to improve access to finance and/or support agribusiness development in Malawi, and close coordination among different projects is critical to avoid overlap and achieve results.** IFAD is currently designing a US\$40 million financial inclusion project, while the U.S. government (USAID and the United States Department of Agriculture) is conducting agribusiness development projects and has two guarantee facilities for five commercial banks with a different focus in terms of loan size and target borrowers. The European Union and European Investment Bank plan to provide credit lines of US\$20 million to several banks for value-chain financing. Since only a small number of financial institutions are active in this sector, coordinated interventions will be critical for all projects to achieve their objectives.

WAREHOUSE RECEIPT SYSTEM IN MALAWI

11. **Malawi has a relatively developed warehouse receipt financing system.** By storing crops in professionally managed warehouses, farmers can reduce postharvest losses, wait for better market opportunities, and gain access to finance.³² Two commodity exchanges, ACE (a private entity) and AHCX (a parastatal), facilitate trade of a wide range of commodities and disseminate price information. AHCX manages its own warehouses and issues warehouse receipts for the owners of the stored crops, while ACE accredits private warehouses owned by Farmer World, an agribusiness company that issues warehouse receipts on behalf of ACE. ACE became operational in 2006 and started issuing warehouse receipts in 2010; AHCX followed in 2012. ACE and AHCX have been supported by the donor community and the government, respectively, since their inception, and transactions have expanded steadily. The amount of crops stored in certified warehouses increased to 40,350 tons in 2015 from 6,731 tons in 2012, accompanied by diversification in commodities and buyers.

12. **The warehouse receipt financing remains limited in the amount of loans and number of participating financial institutions, however.** Warehouse receipt financing grew to US\$13.6 million in 2015 from US\$0.2 million in 2012, but just a few banks provide financing against the receipts. Among the biggest obstacles to the system's expansion appear to be limited familiarity with agricultural commodities and warehouse receipt financing on the part of commercial banks. Although two commodity exchanges have built reliable track records in the market, the participating banks are fully exposed to various risks related to handling and storing crops. This risk exposure translates into higher interest rate and limited credit (of up to 70 percent of the value of the stored commodities).

13. **A regulatory framework is gradually emerging to strengthen existing self-regulating mechanisms.** The warehouse receipt bill and commodity exchange directive have been drafted through an IFC technical support project, and parliament is expected to review and discuss both sets of regulations by the end of 2016. These regulatory frameworks are expected to enhance and/or replace the current self-regulating mechanisms of the commodity exchanges. They should strengthen confidence among stakeholders, including financial institutions.

14. **Critical issues remain to be resolved for healthy growth of the warehouse receipt system in Malawi.** For example, a mitigation mechanism is required to assume the risks related to mismanagement of stored crops in certified warehouses. In advanced warehouse receipt systems, insurance and/or an indemnity fund is available to cover potential losses during storage. Despite numerous efforts in Malawi to develop such a risk mitigation mechanism, no concrete measures have been adopted to date. As a result,

³² According to an analysis of maize and rice farmers by USAID, having no access to a warehouse results in a 15 percent discount in the commodity price and postharvest losses of 20–30 percent.



warehouse receipt finance is provided based on trust in the ACE and AHCX. Limited outreach to smallholder farmers is an additional challenge for the current warehouse receipt system, because it reduces the supply of crops moving through the warehouses. In addition, most warehouses are located far from rural areas, and the cost of storing is prohibitive for small transactions. Smallholders' limited knowledge of the system also prevents them from participating and fully realizing the benefits of storing crops in warehouses.



ANNEX 6: PROJECT'S CONTRIBUTION TO CLOSING GENDER GAPS

1. The absolute poverty rate among male-headed households in Malawi was estimated at 49 percent in 2010/11, while the comparable figure for female-headed households was 57 percent.³³ On average, plots managed by women produce 25 percent less per hectare than plots managed by men. Women also use lower levels of agricultural inputs (improved seed, inorganic fertilizer, and extension services) on their plots compared to men. They use less adult male labor and are also less likely to grow high-value export crops. It is estimated that closing the gender gap in productivity in Malawi would increase agricultural GDP by US\$100 million and lift 238 000 people out of poverty.³⁴ Policy interventions aimed at alleviating the gender gap should focus on ensuring equal access to and use of agricultural inputs, and should take into consideration women's childcare responsibilities.³⁵
2. A workshop on Gender and Climate-Smart Agriculture in the Malawi Agricultural Commercialization Project, held in Lilongwe in November 2016, provided an opportunity for consultation and engagement with local stakeholders and possible partners for project implementation. Participants pointed out several constraints that hinder women's participation in POs and prevent their agricultural enterprises from benefiting. They also highlighted regulatory obstacles to women's participation in food processing.
3. Gender is well mainstreamed in the CAS 2013–2016 (one of the three focus areas is “income opportunities for rural women”). A Country Portfolio and Performance Review (CPR) found that every operation approved under the CAS received the highest possible rating on gender responsiveness. Malawi's ASWAp emphasizes gender issues, equitable access to financial markets and agricultural resources, as well as equal participation in decision-making. The project requires gender focal points to be identified for all departments of MoAIWD. MoAIWD also has a Gender and HIV-AIDS Strategy, which seeks to contribute to sustainable and equitable food, nutrition, and income security at the national, community, and household level through the empowerment of women and other vulnerable gender categories.
4. Table A6.1 presents a preliminary list of gender gaps and corresponding gender actions to be undertaken in the proposed AGCOM project. The actions are organized by project component.

³³ Kilic, T., A. Palacios-Lopez, and M. Goldstein (2013), “Caught in a Productivity Trap: A Distributional Perspective on Gender Differences in Malawian Agriculture.” Policy Research Working Paper 6381. World Bank, Washington, DC.

³⁴ World Bank (2015), “The Cost of the Gender Gap in Agricultural Productivity in Malawi, Tanzania, and Uganda.” Washington, DC.

³⁵ World Bank & ONE (2014), “Levelling the Field: Improving Opportunities for Women Farmers in Africa.” Washington, DC.



Table A6.1: Preliminary gender actions for each component of the project

Actions contributing to closing gender gaps	How the actions are implemented in practice	
Component 1: Building Productive Alliance This component will contribute to closing the gender gap in productivity by ensuring equal access to and use of agricultural inputs, and taking women’s childcare responsibilities into consideration		Indicator: Number of women/men members in productive alliances. If possible: Increase in yields of selected commodities obtained by women/men farmers and/or male-/female-headed households.
Subcomponent 1.1: Horizontal Alliances (PO Formation)		
Ensuring women’s access and capacity to meaningfully participate in producer organizations	<ul style="list-style-type: none"> • Demand-led capacity building (including basic literacy and numeracy, organizational and leadership skills, gender awareness) for POs based on needs assessment. • Two household members possible to be registered as members of alliances. • Training delivered at times, locations, and in language feasible for men and women. • Women-only associations are created if appropriate. • Target awareness raising for women on the possibilities and benefits of participating in alliances. • At the grassroots level, use household methodologies—such as Gender Action Learning System (GALS) developed by the International Fund for Agricultural Development) to change gender norms, if feasible. 	
Ensuring women’s access to agricultural extension and inputs	<ul style="list-style-type: none"> • Extension focusing on climate-smart agriculture through POs. • Extension agents and methodologies are gender sensitive. 	
Releasing women’s time for agricultural activities	<ul style="list-style-type: none"> • Innovative ways to provide childcare. • Promote labor-saving technologies and machinery rental/service. 	
Subcomponent 1.2: Productive Alliances		
Enabling women’s participation in productive alliances	<ul style="list-style-type: none"> • Conduct a targeted outreach campaign for women on the objectives, process, and rules of selecting and funding productive alliances. • Eligibility criteria of alliances include both men and women (e.g., more funding if higher percentage are women). • Promote the visibility of women’s roles in export crop value chains 	
Ensure that brokers have capacity to address the gender issues in alliances and value chains	<ul style="list-style-type: none"> • Brokers’ capacity on gender issues is analyzed and increased if needed. • Analysis of gender roles included in value-chain analysis. 	
Component 1.3: Last-mile Infrastructure for Productive Alliances		
Ensure that infrastructure is useful for male and female producers	<ul style="list-style-type: none"> • Participatory methods used to identify infrastructure that meets both men’s and women’s needs and preferences. 	
Component 2: Support Investment Enabling Services This component will contribute to closing the gender gap in productivity and promote female entrepreneurship		Indicators: Number of members in supported SMEs and new receivers of bank loans sex-disaggregated.
Subcomponent 2.2: Access to Land for Commercial Agriculture		
Improving women’s access to land	<ul style="list-style-type: none"> • Awareness raising on land ownership rights and advocate for equitable land distribution. • Support to better enforcement of existing legislative framework on land policy. 	
Subcomponent 2.3: Support for Business Enabling Services		
Information on Grant program targeting women	<ul style="list-style-type: none"> • Information disseminated through channels available for women • Action based on analysis on obstacles of women to become customers of financial institutions 	
Remove regulations hindering women’s participation in VCs	<ul style="list-style-type: none"> • Analyze with Malawi Bureau of Standards regulation’s gender constraints 	
Component 4. Project Coordination and Management (Includes M&E)		Indicator: Members of producer organizations and SMEs who consider that the project is responsive to their views (sex-disaggregated)
Gender balance in the decision-making structure of the project	<ul style="list-style-type: none"> • Ensuring that the project’s management structure has both men and women at all levels 	
Outcome indicator to monitor gender actions	<ul style="list-style-type: none"> • All the beneficiary data is sex-disaggregated. 	



	<ul style="list-style-type: none"> • A specific gender indicator included in the results framework (to be decided when actions are planned in detail).
--	---

ANNEX 7: TRADE AND COMPETITIVENESS ADVISORY PROJECTS IN MALAWI

Table A7.1: Trade and Competitiveness Activities in Malawi

T&C advisory work/status	Objectives	Focus areas	Opportunities for addition
Active and funded			
Malawi Investment Climate (601590) FY16–18	<ol style="list-style-type: none"> 1) Support improved ranking in 3–5 Doing Business (DB) indicators 2) Support enactment of 3 business laws 	<ol style="list-style-type: none"> 1) Support for DB-related reforms in business start-up, getting credit, enforcing contracts, resolving insolvency, and protecting minority investors 2) Support promulgation of specific laws, e.g., Companies Act, Insolvency Act, Civil Procedure, Personal Property Security Interest Act and preparation of statutory regulations 3) Institutional support at the Office of the Registrar General and the Commercial Division of the High Court 	
Pipeline			
Malawi Trade (601527)	Align Malawi’s trade facilitation systems and processes with WTO Trade Facilitation Agreement, thus reducing time and cost for trade to businesses	<ol style="list-style-type: none"> 1) Harmonization and simplification of trade process and procedure consistent with adoption of WTO’s Trade Facilitation Agreement 2) Support for National Single Window development 3) Coordination and capacity building to government agencies and departments involved in trade 	<ol style="list-style-type: none"> 1) Examine and streamline issuance of food-related import and export permits 2) Review of tax policy related to key agri inputs including mechanization and packaging materials 3) Review and support for sanitary and phytosanitary certification 4) Review and reform of agri related non-tariff barriers 5) Review and identification of logistics related to agri products getting to market.
Malawi Agribusiness	Support the commercialization of agriculture in Malawi	<ol style="list-style-type: none"> 1) Warehouse Receipt System (WRS) <ol style="list-style-type: none"> a. Support for Certification/licensing 	



(601623)		<p>and inspection of warehouses</p> <ul style="list-style-type: none">b. Support for implementation of WRS regulationsc. Sensitize stakeholders of the WRS law and regulationsd. Build the capacity of warehouse regulators <p>2) Support to Malawi Bureau of Standards</p> <ul style="list-style-type: none">a. Rationalization of standard laws and directivesb. Rationalization of inspections between MBS and other agenciesc. Improved procedures related to certification and laboratory serviced. Support for improved product traceabilitye. Institutional capacity building <p>3) Analytical review of key commercialization issues</p> <ul style="list-style-type: none">a. Demand analysis of key agri subsectorsb. Export market reviewc. Incentives for production aggregationd. Review of Co-Op Lawe. Review of work permits for foreign experts <p>4) PPD (Trade and Commercialization of Agriculture)</p> <ul style="list-style-type: none">a. Analytical support for policy review and analysisb. Communication of issuesc. Sharing of relevant good international practice.	
----------	--	---	--

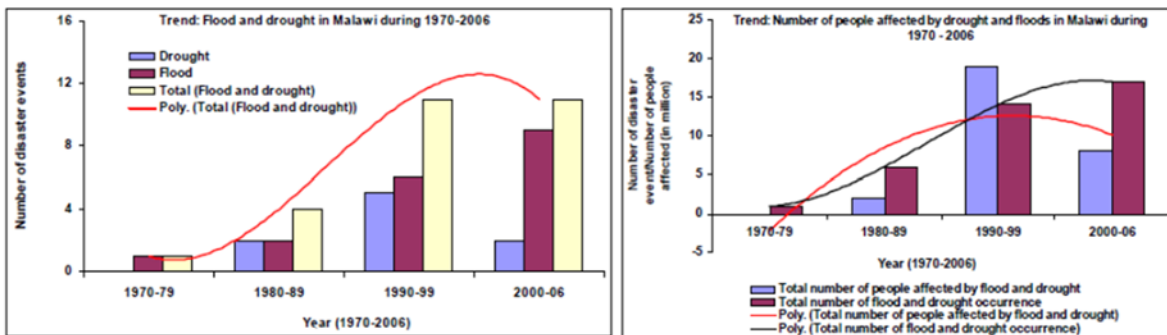


ANNEX 8: AGRICULTURAL RISKS, CLIMATE-SMART AGRICULTURE AND RESILIENCE

CLIMATE VULNERABILITY AND RISK IN MALAWI

1. **Malawi ranks among the twelve most vulnerable countries in the world to the adverse effects of climate change (World Bank 2010).** Climate change impacts in the country are manifested in various forms including through increases in short- and long-run temperatures; shifts in seasonal precipitation patterns, frequency and intensity; increases in extreme events such as severe storms, flooding, droughts and dry spells; climate-related changes in ecosystems; reductions in ecosystems ability to produce desired goods and services; and climate related changes in social systems. Extreme weather events, mainly droughts and erratic rain falls, and to a lesser extent floods, have been the principal driver behind the volatility in the agricultural sector’s performance in Malawi. The frequency and impact of severe weather events have increased over the past two decades, a trend that is expected to intensify as temperatures rise due to climate change. The World Bank’s Agricultural Sector Risk Assessment (2015) highlighted that droughts and erratic rainfalls are the most visible risk to the crop sector. In addition to the weather-related risks pests and diseases are an important problem in Malawi and although the exact figure is not known, a significant share of food crops is lost annually as a result. Research and interviews with farmers show that pest and disease outbreaks are regular occurrences in Malawi and that farmers lose about 20–30 percent in the event of an outbreak (World Bank 2015).
2. **Weather variability is already having an impact on agriculture and food security in Malawi.** The impacts of weather-related risks in Malawi have already severely disrupted food production, led to the displacement of communities, loss of life and assets, and caused an overall reduction of community resilience.

Figure A8.1: Number of drought and flood events (left) and the number of people affected (right)



Source: Action Aid (2006). Climate change and smallholder farmers in Malawi. Understanding poor people’s experiences in climate change adaptation

3. The 2011-12 droughts had severe effects on food security, with approximately 2 million people affected particularly in the southern districts. The January 2015 rainfall was the highest on record for Malawi and caused significant flooding that affected 1,101,364 people, displaced 230,000 and killed 106 people. The total damage and loss was estimated at US\$335 million (equivalent to approximately 5.0 percent of GDP).³⁶ In 2016, the sector was impacted for the second year in row – this time by inadequate

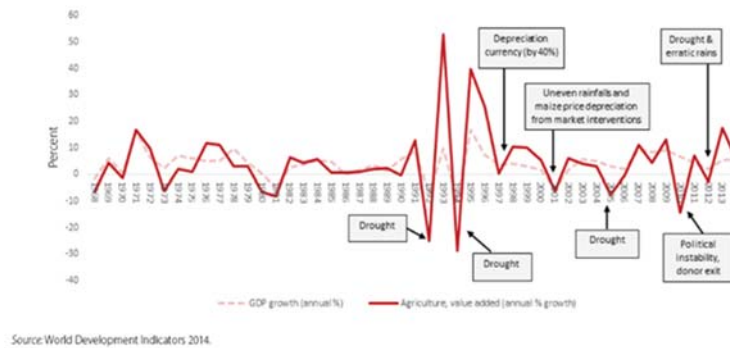
³⁶ Government of Malawi (2015), “Malawi 2015 Floods Post Disaster Needs Assessment Report.” Lilongwe.



rainfall – resulting in some US\$300 million worth of crop losses and an estimated 6 million people being in need of food assistance before the next harvest.

4. Beyond **food security, these risks affect the economic performance of the agricultural sector and the economy as a whole.** Figure A8.2 shows how agricultural risks affecting the sector have led to zero or negative growth in agricultural GDP, leading to decreased or even negative growth for the whole economy. Furthermore, as shown in the figure, these risks are frequent, and unmanaged, they make Malawi’s agricultural sector a risky investment.

Figure A8.2: Weather-related risks have significant impact on agricultural GDP growth and affect general economic growth



5. **Climate change is one of the priority areas under the Malawi Growth and Development Strategy (MGDS II), and has been integrated in the Agriculture Sector Wide Approach (ASWAp).** Malawi’s National Climate Change Investment Plan identifies “inadequate capacity and training at individual and institutional levels in the implementation of policies, rules and regulations, especially on soil and water conservation” as the main challenge for addressing climate change in the agriculture sector. Improving the soil productivity and resilience of the agriculture systems are two of the key priority investment areas under the adaptation. Malawi’s Intended Nationally Determined Contributions (INDC) identifies Malawi’s heavy reliance on rain-fed agriculture as the biggest challenge for adaptation. At the same time, agriculture sector (considering that it is also a key driver of deforestation and land degradation) is responsible for a significant share of Malawi’s GHG emissions, however, the overall mitigation potential is comparably small.

6. **Promoting the understanding and use of CSA is also highlighted in the recent National Resilience Plan: Breaking the cycle of food insecurity in Malawi and the government is now planning to develop a comprehensive program on CSA to address the challenges facing the sector.** In this plan, Government will focus on promoting use and understanding of major CSA practices such as agro-forestry, manure making and use, conservation agriculture (zero/minimum tillage, crop rotation) and an in-situ rainwater harvesting technologies. According to the recent scoping study by Malawi Climate Smart Agriculture Alliance (MCSAA) weak coordination and planning is one of the key challenges in scaling-up CSA at the national level (GoM, 2016). There are a total of 308 district level projects targeting just over 900,000 households with CSA interventions. Recommendations of the study include proper implementation of the Farmer Field Schools and addressing soil fertility management as a first priority.



ANNEX 9: ECONOMIC AND FINANCIAL ANALYSIS

1. **This annex contains the Economic and Financial Analysis (EFA) of the proposed project.** The PDO is to increase the commercialization of agricultural value chain products selected under the project (for the targeted beneficiaries). Without the project, producers and value chain actors are expected to continue with their low-input, low-output, largely rainfed production systems. Opportunities for increased value addition, market access, and commodity exchanges are expected to remain limited as well.
2. **Recognizing the inefficiencies in the agricultural sector.** Agriculture employs 64.1 percent of the country's workforce, comprising mostly small-scale subsistence farmers.³⁷ Agriculture also significantly contributes to national and household food security and nutrition.³⁸ Yet agricultural production and productivity remain low. The proposed project addresses constraints within the sector that contribute to low production and productivity, including the inadequate integration of actors, limited access to quality raw material in key value chains, limited rural connections to markets, limited knowledge of modern farming practices and product standards, limited access to agricultural finance, and systemic gaps and challenges that constrain investments in agribusiness.
3. **The project components are as follows, and all investment costs are included in this EFA (US\$95 million plus US\$9.6 million in estimated beneficiary contributions):**³⁹ Building Productive Alliance; Support Investment Enabling Services; Contingent Emergency Response; and Project Coordination and Management.

RATIONALE FOR PUBLIC PROVISION AND FINANCING

4. **The rationale for public interventions proposed by the project is strong.** Official Development Assistance and government investments in favor of agriculture have mostly been skewed toward the food security responses underlying ASWAp Pillar 1 (input supply, maize productivity, risk-management tools) and have overlooked some key deficiencies in the sector, such as limited opportunities for commercialization and market access (ASWAp Pillar 2). While very relevant for ensuring national food self-sufficiency, this development approach did not provide a successful pathway to transformation and prevented the sector from delivering sustained growth and poverty reduction.
5. These constraints warrant more targeted public investments (for example, to improve rural infrastructure, enhance storage capacity, strengthen farmer organizations, ensure access to credit, and link smallholders with private investors) to address the main commercialization issues and enhance the impact of investments in agriculture on sectoral growth and poverty reduction.

WORLD BANK ADDED VALUE

6. **By addressing needs for greater agricultural commercialization, this new project continues efforts by the World Bank to transform Malawi's agricultural sector.** This project will scale up successes and build on lessons learned under earlier operations by improving land governance, access to land, irrigation, food security and diversification, the business environment, and access to markets (including rural feeder

³⁷ 2013 Malawi Labour Force Survey.

³⁸ Draft National Agriculture Policy (2016).

³⁹ Pending more details from the project plan, beneficiary contributions are estimated as: Component 1.2: 200 PA partnerships * US\$6,000 investment * 50% commercial loan = US\$600,000. Component 2.1: 50 warehouses * US\$240,000 investment * 75% commercial loan = US\$9 million.



roads). The Bank currently coordinates the Multi-Donor Trust Fund to the Agricultural Sector Wide Approach Support Project (ASWAp-SP).

7. **Based on the strong presence and engagement in Malawi, along with relevant experience in the region and globally, the Bank has strong convening power and knowledge to promote agricultural commercialization.** The project entails collaboration between two World Bank Global Practices (Agriculture and Trade & Competitiveness), while building synergies with other bank financing instruments such as Development Project Financing. The development partners and private sector have expressed high interest in collaborating closely with the Bank in implementing the project.

METHODOLOGY

8. **A cash flow model is used to assess the efficiency of the project investment ex-ante.** Annual cash flows are estimated as the difference between without-project and with-project net benefits for direct beneficiaries. All project interventions are considered necessary to obtain the target impact; therefore, the entire investment cost is included in this analysis (US\$95 million + US\$9.6 million from beneficiaries' commercial loans).

9. **Efficiency and other cost-benefit indicators.** The cost-benefit analysis is based on crop- and farm-level assumptions related to yields, input requirements, and prices and costs in constant 2016 currency amounts for without- and with-project project scenarios, based on a typology of farm households⁴⁰. The Economic Net Present Value (ENPV) is calculated using the World Bank recommended discount rate of 5 percent⁴¹. In addition to sensitivity analyses of this discount rate, the break-even rate is also calculated—that is, the Economic Internal Rate of Return (EIRR). Other indicators include impact on income for the representative farm households and the estimated change in farm level employment. Using data collected and assumptions by the project team, the methodology goes further than the total project results to enable analyses at different levels of aggregation:

- At the base of the model are data on per hectare gross margin for priority crops and per farm gross margins for livestock.⁴²
- Representative farms are defined in terms of farm size and combinations of different crops and livestock and major types of technology. This enables an analysis of estimated impact on incremental farm household income.

10. **Quantified net benefits captured in the EFA model.** Component 1 targets productivity, competitiveness, market development, and value addition for farmers and other value-chain actors. The project team's assumptions about the impact of the project interventions on cropping pattern, yield, and costs include assessing the effect on incremental net income by improving productivity. To determine the with-project assumptions, the project team took into account the baseline situation and improved access to: knowledge of better farming practices, improved seed, fertilizer, technology (including irrigation), markets, and finance (Component 2). Project interventions for investment enabling services (Component 2) and project management (Component 4) are necessary to achieve the net benefits captured in Component 1, and are therefore included in the EFA.

⁴⁰ The foreign exchange rate used is US\$1= 720 MWK.

⁴¹ World Bank (2015), "Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects," Washington, DC.

⁴² Data for each priority crop and value chains were collected by the project team.



11. **Cumulative target values and farmer adoption rates.** Investment costs are allocated across the initial years according to the cumulative project costs as laid out in this Project Appraisal Document (PAD). Farmers' adoption of improved agricultural technology promoted by the project is assumed to follow a progression of 20 percent per year. The project team expects the maximum adoption rate to be 90 percent of the targeted farmers. The project targets farmers who are or who become part of POs and PAs and that have shown interest in developing commercially. This high adoption rate is more conservative, for example, than that of the Shire River Basin Management Program and Community-Based Rural Land Development Project, which both assume an adoption rate of 100 percent. Other types of projects often expect a lower adoption rate of 70–80 percent.⁴³

12. **Conversion factors for economic analysis.** An economic analysis is concerned with value addition to GDP and excludes all transfer payments such as taxes, subsidies, grants, loans, interest- and principal payment paid to or received from beneficiaries. Financial prices and costs are therefore converted to economic prices using adjustment factors. Until further data are obtained, conversion rates are taken from the Shire River Basin Management Program PAD (2012). As such, the shadow cost of labor is set at 75 percent of the MK600/day rate for unskilled labor (that is, at MK450/day). Furthermore, a 0.9 conversion factor is applied to the cost of fertilizers, crop chemicals, and veterinary services (including medicines). Price contingencies of US\$1.9 million are excluded from the economic analysis but included in the financial analysis. All other cost assumptions are maintained from the financial analysis.

13. **Sensitivity analyses identify key assumptions that should be the focus of risk management efforts.** Three approaches are used: (a) switching values, when a change in an assumption leads to a break-even ENPV, are calculated for most assumptions. (b) elasticities are calculated for key assumptions to show how much a 1 percent change in an assumption changes total ENPV; and (c) specific scenarios are analyzed to further highlight key risk factors (adoption rates, farm gate prices, project delays, and no change in cropping pattern).

ASSUMPTIONS AND RESULTS

14. **In the current 25-year net benefit analysis using a 5 percent discount rate, the project yields an ENPV of US\$372 million (MK268 billion) and has a benefit cost ratio of 4.7; the EIRR is 51 percent.** Before analyzing the economic value results, the underlying assumptions are discussed, starting with a financial analysis of farm-level target beneficiaries.

FINANCIAL ANALYSIS

15. **On more market-oriented farms, project interventions are assumed to lead to increased crop yields and gross margins while reducing the share of production that is consumed at home; smallholder farmers are expected to increase their home consumption.** Gross margin assumptions show increases of 30–170 percent for different crops and livestock. Tables A9.1, A9.2, and A9.3 show the crop and livestock gross margins per hectare or farm for different farm types. It is assumed that yields will increase by 29–67 percent on different crops. The percentage increases in gross margins in the with-project situation are higher for crops grown by smallholder farmers (Table A9.1) but also considerable for more market-oriented farmers (Table A9.2). Yields and gross margins are expected to increase by around 40 percent for

⁴³ Examples include: 74 percent adoption rate in the Uganda-National Agricultural Advisory Services Project and 70–80 percent adoption rate in the IFAD Rwanda Project for Rural Income through Exports. In addition, project experiences show that women farmers have a lower adoption rate than men, hence reducing the weighted average adoption rate for this project. The EFA for the Pro-poor Value Chain Project in the Maputo and Limpopo corridors (PROSUL) assumed an 80 percent adoption rate in the project area.



both beef and dairy farmers. The increased production will enable smallholders to retain more of their produce for home consumption. They will not need to reduce their intake to save cash, which is a typical coping mechanism at present.

16. **Table A9.4 shows the assumed cropping patterns and number of livestock for four representative farm models, including a switch to higher-value crops for smallholders.** Farm A shows that smallholders with 0.61 ha on average are expected to switch from maize to rice and soybean production in the with-project situation. Farm B, with an average of 1 ha under cultivation, represents more market-oriented farmers that are assumed to grow a range of crops, with an emphasis on legumes. As more information comes to light during project planning, the cropping patterns and livestock combinations will be refined.⁴⁴

Table A9.1: Crop gross margins without and with project (smallholder farmers, financial analysis)

Description	Unit	Maize, low		Rice, low		Soybeans		Groundnuts, low		Pigeonpeas, low	
		WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P
Yield	kg/ha	900	1,500	800	1,200	600	1,000	600	1,000	700	900
Increase	% of WO/P		67%		50%		67%		67%		29%
Revenue	US\$/ha	269	448	656	983	208	347	583	972	583	750
Costs	US\$/ha	129	162	159	190	125	125	226	226	67	69
Gross margin	US\$/ha	140	286	497	793	83	222	357	746	516	681
Increase	% of WO/P		105%		60%		167%		109%		32%
Home consumption	% of yield	100%	67%	13%	17%	8%	10%	17%	15%	14%	17%

Note: WO/P = without project (Baseline); W/P = with project (low technology). Annual average allowing for a 3-year linear increase. Revenue includes value of home consumption. Costs exclude farmer's own labor. Irrigated crops: rice. Exchange rate: 1 US\$= MK 720.

Table A9.2: Crop gross margins without and with project (market-oriented farmers, financial analysis)

Description	Unit	Maize, medium		Rice, medium		Soybeans, medium		Groundnuts, medium		Pigeonpeas, medium		Tomatoes, medium	
		WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P
Yield	kg/ha	1,500	2,500	1,200	2,000	1,000	1,500	900	1,300	900	1,500	12,000	20,000
Increase	% WO/P		67%		67%		50%		44%		67%		67%
Revenue	US\$/ha	448	747	983	1,639	611	917	875	1,264	750	1,250	6,667	11,111
Costs	US\$/ha	199	286	227	311	174	198	291	311	101	126	560	712
Gross margin	US\$/ha	249	461	757	1,328	437	718	584	953	649	1,124	6,106	10,399
Increase	% WO/P		85%		76%		64%		63%		73%		70%
Home consumption	% of yield	90%	54%	25%	15%	10%	7%	17%	12%	17%	10%	1%	1%

Note: WO/P = without project (baseline) (medium technology); W/P = with project (medium technology). Annual average allowing for a 3 year linear increase. Revenue includes value of home consumption. Costs exclude farmer's own labor. Irrigated crops are: rice, pigeonpeas, tomatoes. Exchange rate: 1 US\$= MK 720.

⁴⁴ In reality, cropping patterns are driven by demand and supply. However, the EFA model is deterministic and does not include a dynamic adjustment of cropping patterns between years and different farmers. The assumptions are based on the project team's best judgement.



Table A9.3: Average annual gross margins without and with project (livestock farmers, financial analysis)

Description	Unit	Beef		Dairy	
		WO/P	W/P	WO/P	W/P
Target herd numbers	head	10 steers twice year	10 steers twice year	10 cows	10 cows
Starting weight	kg/head	150	200	40	60
Target weight	kg/head	200	300	300	450
Eggs or milk yield	unit/head/year			730	1,460
Revenue	US\$/farm	7,917	11,875	1,815	3,000
Costs, excluding animal purchases	US\$/farm	1,933	3,468	974	1,795
Gross margin	US\$/farm	5,984	8,407	842	1,204
Increase	% of WO/P		40%		43%
Animal purchases	US\$/farm	2,083	2,750	1	2
Gross margin, including animal purchases	US\$/farm	3,901	5,657	841	1,203
Increase	% of WO/P		45%		43%

Note: WO/P = without project (baseline) (medium technology); W/P = with project (medium technology). Annual average allowing for a 3 year linear increase. Costs exclude farmer's own labor. Livestock margins are calculated as averages including animal purchases required in certain years to allow for sales and animal losses. Exchange rate: 1 US\$= MK 720.

Table A9.4: Cropping pattern without project and with project on representative farms and land area Included in analysis, by crop and livestock

Share of farm area	Farm A Cropping (smallholder)		Farm B Cropping (market oriented)		Farm C Beef		Farm D Dairy		Total targeted area in analysis		
	0.61 ha		1 ha		1 ha		1 ha		ha	ha	% change
Farm size	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	
Crop and project	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	WO/P	W/P	
Maize, low	40%	10%							6,466	1,617	-75%
Rice, low	5%	25%							808	4,041	400%
Soybeans	15%	23%							2,425	3,637	50%
Groundnuts, low	20%	20%							3,233	3,233	0%
Pigeonpeas, low	20%	23%							3,233	3,637	13%
Maize, medium			16%	16%					8,392	8,392	0%
Rice, medium			11%	11%					5,742	5,742	0%
Soybeans, medium			21%	21%					11,042	11,042	0%
Groundnuts, medium			21%	21%					11,042	11,042	0%
Pigeonpeas, medium			20%	20%					10,600	10,600	0%
Tomatoes, medium			12%	12%					6,183	6,183	0%
No crops					100%	100%	100%	100%	500	500	0%
Total	100%	100%	100%	100%	100%	100%	100%	100%	69,665	69,665	0%
Beef (head of cattle)					20	20					
Dairy (head of cattle)							10	10			
Total					20	20	10	10			



Note: WO/P = without project (baseline); W/P = with project. Assumes 80,000 farms targeted by project.

17. **The combination of improved yields, technology, and change in cropping pattern has the potential to improve farm income significantly compared to the national poverty line.** Table A9.5 shows farm-level income increasing by over 100 percent on smallholder farms. This increase translates to more than US\$188 per farm per year or US\$38 per household member (assuming an average of five members per farm household)—32 percent of the Malawi poverty line, estimated at US\$0.32 per person per day.⁴⁵ The earning potential is higher on the other representative farms, with improved income from beef production estimated at US\$370 per person per year or over US\$1 per person per day.

Table A9.5: Representative farm models, gross margins (financial analysis; excludes postharvest)

		Farm A Cropping (smallholder, 0.6 ha)	Farm B Cropping (market oriented, 1.0 ha)	Farm C Beef (1.0 ha)	Farm D Dairy (1.0 ha)
Average annual gross margin, WO/P	Avg. US\$/ha/yr	268	1,176	4,106	844
Average annual gross margin, W/P		576	1,996	5,954	1,208
Change due to project		308	820	1,848	364
% change due to project		115%	70%	45%	43%
Average annual gross margin, WO/P	Avg. US\$/farm/yr	163	1,176	4,106	844
Average annual gross margin, W/P		351	1,996	5,954	1,208
Change due to project		188	820	1,848	364
Average annual gross margin, WO/P	Avg. US\$/household member/yr	33	235	821	169
Average annual gross margin, W/P		70	399	1,191	242
Change due to project		38	164	370	73

Note: WO/P = without project (baseline); W/P = with project. Average 5 household members per farm. Exchange rate: 1 US\$ = MK 720.

18. Farm-level net benefits are aggregated up to represent the 80,000 targeted farmers as a partial estimate of project returns. Pending further information from the project team, the current analysis assumes 26,500 smallholder farmers (Farm A = 16,165 ha), 53,000 farmers that are more market-oriented (Farm B = 53,000 ha), 250 beef farmers (5,000 steers per year), and 250 dairy farmers (2,500 cows per year).⁴⁶

19. **The project’s overall Financial NPV is US\$365 million (MK263 billion), with a Financial IRR of 50 percent and a benefit cost ratio of 4.5. The payback period is 7 years (see Table A9.6).** Note that to complement this analysis, the project team will continue to collect data to perform entity-level investment analysis of selected infrastructure projects likely to be supported through matching grants.

⁴⁵ In 2007 the Malawi Poverty Line was estimated as MK16,165 per person per year or MK44.3 per person per day. At the 2007 exchange rate, this was US\$0.32 per person per day. See World Bank (2007), “Malawi Poverty and Vulnerability Assessment: Investing in Our Future,” Washington, DC.

⁴⁶ Pending more details from the project team, the number of targeted farmers was estimated by dividing the project budget of US\$120 million by US\$1,500 as a measure of typical level of investment per direct beneficiary. Sensitivity analysis shows that if the total number of farmers drops from 80,000 to 19,000 the project no longer breaks even.



ECONOMIC ANALYSIS

20. As explained earlier, prices and costs used in the financial analysis are adjusted to value the economic impact of the project. Investment costs include the project budget (excluding price contingencies), beneficiary contributions, and annual recurring costs after the project is complete.

21. **The ENPV is US\$372 million discounted at 5 percent over a 25 year period. This generates a benefit cost ratio (EBCR) of 4.7 and an EIRR of 51 percent with a payback period of 7 years (see Tables A9.6 and A9.7 and Figure A9.1).** The undiscounted annual average net benefit from the project is US\$32 million, which is 0.5 percent of national GDP (US\$6,565 million in 2015) and 1.7 percent of agricultural GDP (US\$1,924 million).⁴⁷ This result may overestimate the relative impact of the project, because agricultural production's share of total GDP is often low due to the informal nature of the sector. Note that the item for livestock investment costs shown in Tables A9.6 and A9.7 contains amounts used to purchase steers as starting capital in the initial year for targeted beef producers. After this initial investment from the project, it is assumed that farmers can obtain sufficient working capital to purchase steers themselves. Further analyses are planned to value net benefits from postharvest investments and project-related improvements to the carbon balance.

Table A9.6: Economic and financial analysis: Key efficiency indicators

	Economic analysis		Financial analysis	
	Undiscounted	NPV 25 yrs	Undiscounted	NPV 25 yrs
Net benefits farm level (US\$ m)	940	473	931	468
Livestock investment costs (US\$ m)	–0	–0	–0	–0
Project investment costs (US\$ m)	–102	–83	–104	–84
Recurring costs (US\$ m)	–39	–18	–40	–19
Total and ENPV (US\$ m)	799	372	787	365
Benefit cost ratio		4.7		4.5
Economic IRR		51.2%		49.6%
Payback period		7 yrs		7 yrs

Note: Recurring costs annually after project investment years = 2% of investment costs. 5% discount rate. Exchange rate: 1 US\$= MK 720.

Table A9.7: Economic analysis—estimated annual cash flow benefits and costs

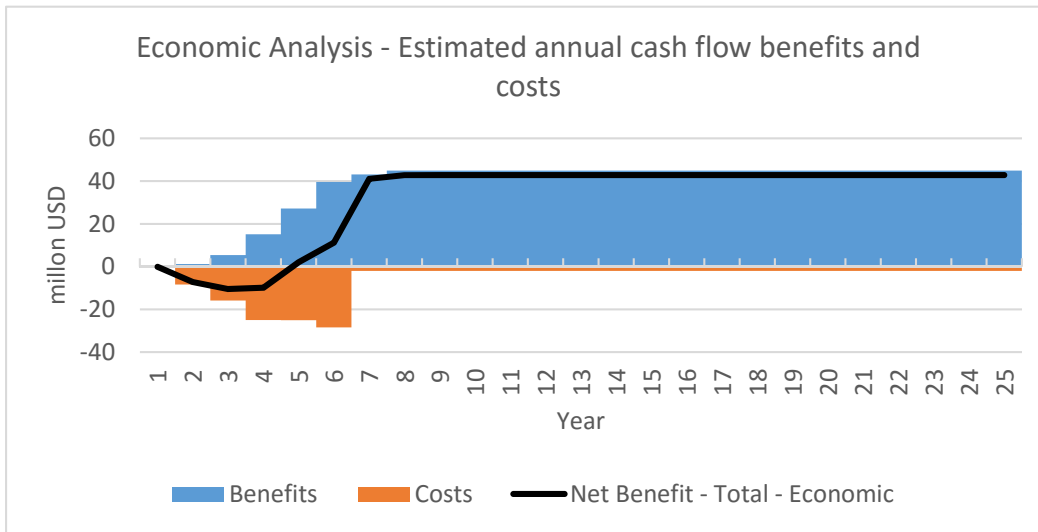
Year	Total W/P less WO/P, farm level	Total livestock investment costs	Total capital investment costs	Total recurring costs	Benefits	Costs	Total Economic Net Benefit
1	0.0	0.0	–0.1	0.0	0.0	–0.1	–0.1
2	1.2	0.0	–8.4	0.0	1.2	–8.4	–7.2
3	5.4	0.0	–15.8	0.0	5.4	–15.9	–10.5
4	15.1	–0.1	–24.9	0.0	15.1	–25.0	–9.9
5	27.2	–0.1	–24.9	0.0	27.2	–25.0	2.1
6	39.7	–0.1	–28.3	0.0	39.7	–28.4	11.2
7	43.1	0.0	0.0	–2.0	43.1	–2.0	41.1
8	44.9	0.0	0.0	–2.0	44.9	–2.0	42.9
9	44.9	0.0	0.0	–2.0	44.9	–2.0	42.9
10	44.9	0.0	0.0	–2.0	44.9	–2.0	42.9
<i>(some years removed for presentation purposes)</i>							
25	44.9	0.0	0.0	–2.0	44.9	–2.0	42.9
Total	940.3	–0.3	–102.5	–38.9	940.3	–141.7	798.5

⁴⁷ World Development Indicators database, GDP and population data for Malawi (accessed 14 October 2016).



<i>Total (discounted)</i>	472.9	-0.3	-82.5	-18.5	472.9	-101.3	371.7
					ENPV	US\$ m	371.7
					EBCR	Ratio	4.7
					EIRR	%	51.2%
					Payback period:		7 years

Figure A9.1: Economic analysis—estimated annual cash flow benefits and costs



22. While not shown in detail in the tables, the project is expected to have a minor impact on employment from hired farm labor. A considerable impact is likely from employment in postharvest investments that are not included in this analysis. Currently the analysis can show an estimated increase of 1.3 million employment days per year, which is equivalent to just over 5,000 full-time person-years or 10,000 part-time. With a rural population of 14.4 million, the estimated impact from the project on unskilled farm employment is minor.

23. The project is likely to provide net benefits through reduced soil erosion and the yield losses that are avoided as a result. Fragile soils on steep slopes and erosive rainfall are the main causes of soil loss in Malawi.⁴⁸ Human activities that can exacerbate soil loss include poor soil management, agricultural activities on steep slopes, poor vegetative cover, and inadequate policies and implementation. Project interventions are expected to increase farmers’ use of CSA practices (see Annex 8). Benefits of CSA go beyond those captured above in the assumed changes in gross margin. In addition, climate-smart practices can also help to reduce the negative impact of changes in agricultural production beyond the farm-level. For example, conservation agriculture can help to reduce soil erosion which again avoids future crop yield losses and downstream costs to irrigation infrastructure. More detailed estimates are needed, but by assuming that practices used with the project will help to prevent the annual yield loss of 0.25 percent estimated to occur in the without-project situation, estimated project net benefits increase by 6.5 percent (US\$24 million).⁴⁹

⁴⁸ FAO (2016), “Soil Loss Assessment in Malawi.” Rome.

⁴⁹ FAO has estimated soil losses in Malawi to be on average 29 t/ha/yr. Other studies have tried to link soil loss to yield loss. For



24. **Switching values.** For the switching values analysis (Table A9.8), each assumption is changed until the ENPV is zero (a break-even analysis). Because a relatively large share of the representative Farm B producers grow tomatoes with high gross margins, the total budget returns are quite sensitive to the assumed price and yield. A 56–60 percent reduction in either price or yield makes the project break even. The crop is used to represent vegetable production in the area, so it will be key to validate these assumptions. The maximum adoption rate must drop from 90 percent to 19 percent before the project breaks even. The estimated ENPV is not very sensitive to changes in the other assumptions listed in the table.

25. **Elasticities.** The large and unlikely changes required to turn the ENPV zero in the switching values analysis does not reveal how sensitive results are at the margin. Instead, Table A9.9 shows the elasticities of key assumptions. A general increase of 1 percent in all farmgate prices would lead to a 3.2 percent increase in the ENPV. A 1 percent decrease in the maximum adoption rate leads to a reduction of more than 1.2 percent in the estimated project return. The ENPV is not very sensitive to changes in total project investment costs with an elasticity of –0.2 percent.

Table A9.8: Sensitivity analysis of economic efficiency (switching values)

Rank	Assumption	Unit	Base case assumption	Switching value	% change from base case
1	Tomatoes, medium-W/P-farmgate price	MK/kg	400.0	177.7	56%
2	Tomatoes, medium-W/P-total production	kg/ha/yr	20,000	8,186	59%
3	Price conversion—other crop prices	ratio	1.00	0.22	78%
4	Maximum adoption rate	% of developed area	90%	19%	79%
5	Tomatoes, medium-WO/P-farmgate price	MK/kg	400	769	92%
6	Tomatoes, medium-WO/P-total production	kg/ha/yr	12,000	23,088	92%
7	Exchange rate	MK/US\$	720	3,361	367%
8	Price conversion—project investment costs	ratio	1.00	4.67	367%
9	Groundnuts, medium-WO/P-farmgate price	MK/kg	700	3,457	394%
10	Groundnuts, medium-WO/P-total production	kg/ha/yr	900	4,652	417%

Note: WO/P = without project (baseline); W/P = with project. Switching value is the assumption value that causes the ENPV to turn zero (break-even point).

Table A9.9: Sensitivity analysis of economic efficiency (elasticities)

Assumption	Unit	Base case assumption	NPV elasticity
All W/P farmgate prices	MK/kg	Miscellaneous	3.2%
Maximum adoption rate	% of developed area	90%	1.2%

example, Khonje and Machira (1987) estimate a 50 t/ha/yr soil loss can lead to 8–25 percent annual yield loss. In Kenya estimates showed a 2.5–3.5 percent yield loss calculated as 1.3–5.2 percent per centimeter soil loss. As a conservative estimate, the Rwanda Land Husbandry, Water Harvesting and Hillside Irrigation Project (PAD, 2009) assumed that radical terracing and changes in agricultural practices could avoid a 2 percent per year yield loss in the without-project situation. The project team considers a 0.25 percent avoided yield loss more appropriate for the current project design.



Discount rate	%/yr	5%	-1.0%
Project investment costs	US\$ m	102.8	-0.2%

Note: WO/P = without project (baseline); W/P = with project. Elasticity is measured as the %-change in base case ENPV with a 1% change in one assumption at a time. Economic analysis.

26. Some risk factors cannot be estimated directly in an analysis of switching values or elasticity. To analyze the impact on project returns from selected assumptions, some specific scenarios are calculated. Table A9.10 summarizes the impact of key risk factors, as discussed below.

27. **A large drop in the maximum adoption rate is a key risk factor.** Table A9.10 shows that the estimated project returns could fall by 27 percent if project implementation cannot achieve an adoption rate of more than 70 percent. Close monitoring and support for targeted farmers as well as commercial financial institutions should help to increase the adoption rate. It is also essential to ensure that beneficiaries are successful at applying for commercial loans, obtaining the necessary quality inputs, and implementing their investments.

Table A9.10: Sensitivity analysis of economic efficiency (scenarios)

Case	ENPV – 25 years		Benefit cost ratio – 25 years	Economic IRR
	US\$ million	% change		
Base case	371.7	0%	4.7	51.2%
Maximum adoption rate falls from 90% to 70%	269.7	-27%	3.7	39.9%
All W/P farmgate prices fall by 5%	307.4	-17%	4.0	42.5%
Adoption rate in Year 6 increases from 90% to 100%	421.7	13%	5.2	56.0%
Project delay: Adoption starts in Year 3	346.5	-7%	4.4	38.4%
No change in cropping pattern to higher-margin crops	359.8	-3%	4.7	51.8%
10% increase in project investment costs	361.5	-3%	4.2	45.6%
Project delay: Adoption starts in Year 2	362.3	-3%	4.6	45.1%

Note: 5% discount rate—Economic analysis.

28. **Project returns rely on sustained crop prices.** A general 5 percent fall in crop prices is estimated to lead to a 17 percent reduction in ENPV. This risk factor emphasizes the value of improving farmers’ and farmer organizations’ ability to negotiate higher prices and also consider the potential impact of falling prices outside the control of the project.

29. **Project delays can reduce returns by 3–7 percent.** A delay in when farmers are willing and able to adopt new farming practices and implement their investments can lead to reduced project returns. While a 3-year delay is estimated to reduce ENPV by 7 percent, a 2-year delay still leads to a 3 percent reduction. While not always avoidable, project delays can be minimized with close monitoring and by ensuring implementation does not lose momentum. Project returns are not very sensitive to changes in overall project costs.

30. **Overall, the project returns are substantial even when key risk factors are considered.** In addition, significant additional benefits can be expected from postharvest infrastructure investments and improved rural access roads, which have not been included in this quantitative analysis. The potential impact on economic net benefits from these and other sources are discussed in the next section.

NET BENEFITS NOT QUANTIFIED IN THE EFA MODEL

31. The main expected net benefits that could not be quantified due to lack of data include postharvest drying, storage, and processing facilities; feeder roads; nutrition; access to land for commercial



agriculture; access to other business enabling services; and the impact on the carbon balance arising from changes in agricultural production.

32. More analysis is needed to identify profitable investment opportunities in postharvest facilities in the project area. The shortage or excess capacity of such facilities should also be investigated. By obtaining more data, net benefits from postharvest facilities can be added to this analysis. If supported postharvest facilities have the capacity to store/process more than the incremental increased production, additional benefits can be expected. Given that there appears to be little current postharvest capacity in the area, project support is not expected to create excess capacity in the sector. However, this assumption should be confirmed with further data collection on current/planned capacity versus projected production levels in the project areas and surrounding areas.

33. Project investments to improve rural access roads are expected to have a substantial impact in the project area. Local communities experience many diverse benefits from improved rural access roads. More data are needed to value the net impact of road investments based on benefits and costs of items such as:

- Losses in value avoided during transport.
- Reduced cost of vehicle maintenance for current and future users.
- Reduced number of accidents versus increased traffic.
- Cost savings from reduced transportation costs for beneficiaries in the area.
- Increased employment opportunities both during construction and afterward through maintenance and also improved commuting opportunities.
- Impact on migration in and out of the area.
- Improved access to water and social services (health and education) that currently require longer travel times.
- Both potentially negative and positive environmental impacts.

34. Avoided value losses can add considerable net benefits to the project beneficiaries. Preliminary data indicate that the total value losses experienced during harvest, drying, storage, and transportation range from 2.5 percent for legumes to 5.5 percent for rice, 10.7 percent for maize, and up to 30 percent for vegetables. Investments that help prevent a share of these losses can add considerable net benefits to the project.⁵⁰

35. The project is expected to have a positive impact on nutrition inside the project area, with likely spillover to other geographical areas. By supporting nutrition interventions in line with the Malawi National Nutrition Plan, the project can improve household food and nutrition security. Changes come from diversification of crop and livestock production; the identification, validation, and dissemination of nutrition-dense crop and livestock technologies; increased attention to storage and processing of foods; and awareness of nutritional issues at the household level. The assumptions in the model incorporate the notion that an increase in the farm surplus will lead producers sometimes to retain more produce for home consumption, improving their nutrition rather than reducing their intake to save cash (as noted, a typical coping mechanism in the project area). Currently data are not available for the expected value of improved nutrition. While national and provincial household surveys can help provide a baseline for food security in the project area, more data are needed to quantify gaps in nutrition and the quantity of

⁵⁰ See further information about value losses in Singano et al (2016), World Bank (2011), and Kaminski and Christensen (2014).



consumed food. In addition, the dietary impacts need to be identified and linked to changes in agricultural production due to interventions in the project area as well as in neighboring markets.

36. Benefits of improved access to land, business enabling services, institutional strengthening, and capacity building are captured indirectly. As noted, the value of capacity building among direct beneficiaries is captured in the EFA model. Project-funded capacity building and institutional development at all levels have direct value in that they increase the skill level in public institutions and enable them to work more efficiently in providing essential and enhanced public good services. These institutional benefits are not quantified in the EFA, but they are seen as critical to ensure that the other benefits can be realized when it comes to building PAs with access to agricultural financing, land, and other business enabling services.

37. In light of an ENPV of US\$372 million and an ERR of 51 percent and the additional potential net benefits that cannot yet be quantified, the project investment is expected to yield significant returns even when considering key risk factors.

38. The project team continues to collect more data to improve the current EFA analysis. The team will particularly focus on:

- Obtaining gross margin data for postharvest infrastructure investments.
- Estimating the net impact of the project on the carbon balance by using FAO's EX-ACT estimating tool.
- Validating assumptions behind all crop and livestock gross margins.
- Validating the assumed farm sizes and cropping/livestock patterns of representative farms.
- Ensuring that the EFA analysis is aligned with applicable target indicators in the results framework.
- Estimating the necessary factors for converting financial to economic prices beyond the current approach.
- Performing entity-level investment analyses of selected investments likely to be supported through matching grants.

REFERENCES

- FAO (Food and Agriculture Organization). 2016. "Soil Loss Assessment in Malawi." Rome.
- Kaminski, J., and L. Christensen. 2014. "Postharvest Loss in Sub-Saharan Africa: What Do Farmers Say?" Policy Research Working Paper 6831. World Bank, Washington DC.
- Khonje, C.S., and S.K. Machira. 1987. "Erosion Hazard Mapping of Malawi." Land Husbandry Branch, Ministry of Agriculture, Lilongwe.
- Singano, C., E. Mwanaleza, E. Matale, B. Mhango, F. Kalonga, and G. Lungu. 2016. Maize Postharvest Loss Assessment Survey in Malawi under Agricultural Sector-wide Approach Support Project. Draft Assessment Report.
- World Bank. 2004. Community Based Rural Land Development Project. Project Appraisal Document. Washington, DC.
- World Bank. 2009. Rwanda Land Husbandry, Water Harvesting and Hillside Irrigation Project. Project Appraisal Document. Washington, DC.
- World Bank. 2011. "Missing Food: The Case of Postharvest Grain Losses in Sub-Saharan Africa." Report No. 60371-AFR. World Bank, Washington, DC.



World Bank. 2012. Malawi Shire River Basin Management Programme. Project Appraisal Document. Washington, DC.

World Bank. 2015. "Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects." Washington, DC.

World Bank. 2016. Malawi Agricultural Commercialization Project. Project Concept Note, August 31. Washington, DC.

World Development Index Database. Population and GDP for Malawi. Accessed 14 Oct 2016.



ANNEX 10. GREENHOUSE GAS ACCOUNTING ANALYSIS: ESTIMATING THE NET CARBON BALANCE WITH EX-ACT

WORLD BANK MANDATE

1. In its 2012 Environment Strategy, the World Bank adopted a corporate mandate to conduct greenhouse gas (GHG) emissions accounting for investment lending. The quantification of GHG emissions is an important step in managing and ultimately reducing emissions, and it is becoming common practice for many international financial institutions. The World Bank has adopted the Ex-Ante Carbon-balance Tool (EX-ACT), developed by FAO in 2010,⁵¹ to assess a project's net carbon-balance. This is the net balance of tons of CO₂ equivalent (tCO₂e) GHGs that were emitted or carbon sequestered as a result of project implementation compared to a without-project scenario and compared to a "initial" current scenario. EX-ACT thus estimates the carbon stock changes as well as GHG emissions per unit of land, expressed in tCO₂e per hectare and year.

DATA INPUTS IN EX-ACT

2. Malawi has a tropical dry climate and Low Activity Clay soils. The project duration is 5 years; the capitalization period is assumed to be 15 years to allow changes in soil carbon to materialize. Dynamics of evolution are assumed to be linear. Default "Tier 1" coefficients are used.

3. The proposed AGCOM project proposes several activities that can be captured with EX-ACT. Component 1, which will assist small-scale farmers to integrate into value chains, is expected to reach about 80,000 farmers who cultivate about 69,665 hectares of land in the without- and with-project scenarios. While the project is demand-driven, it will provide training in CSA practices and support the adoption of improved technologies, including climate-smart alternatives such as improved nutrient efficiency, conservation agriculture, and agro-forestry practices. Experience has shown that small-scale subsistence as well as market-oriented farmers are interested in producing maize, rice, soybeans, groundnuts, pigeonpeas, or tomatoes, and by adopting CSA practices they could achieve yield increases of 29–67 percent per hectare. It is estimated that out of 80,000 farmers about 500 may be interested in livestock (beef and dairy) production.

4. Under Subcomponent 1.3, the project proposes to develop and rehabilitate 2,000 hectares of small-scale gravity irrigation schemes (which are part of the 69,665 hectares cultivated by the targeted farmers). In addition, this subcomponent aims to construct/rehabilitate 240 kilometers of feeder roads and improve access to electricity in project areas.

5. **Results:** Table A10.1 provides data inputs for the current, without-project, and with-project scenarios. show that the project can constitute a sizeable net carbon sink of -556,689 tCO₂ equivalent over 25 years, thus -22,268 tCO₂e annually, due to the expected introduction of improved crop management practices and improved rice management practices. The introduction of livestock and increase of production inputs constitute the only carbon sources.

6. **Sensitivity analysis.** The base scenario presented in table A10.1 assumes that 90 percent of farmers have adopted the improved agricultural (crop and livestock) practices. If 80 percent of farmers participate, the net carbon balances decreases to: -474,457tCO₂e; with 70 percent participation the net carbon

⁵¹ <http://www.fao.org/tc/exact/ex-act-home/en/>.



balance decreases to: -392,225tCO₂e; 60 percent participation to -309,993 and 50 percent participation to -227,761tCO₂e.

Table A10.1: Data inputs to EX-ACT in the current, without-project and with-project scenario.

Activity	Current scenario	Without-project scenario	With-project scenario
Introducing climate-smart agriculture practices	67,665 ha under traditional cultivation, of which: Maize 14,858 ha Rice 6,550 ha Soybeans 13,467 ha Groundnuts 14,275 Pigeonpeas 13,833 ha		67,665 ha under improved nutrient management practices Maize 10,009 ha Rice 9,783 ha Soybeans 14,679 ha Groundnuts 14,275 Pigeon peas 14,237 ha
Rehabilitated irrigation schemes	2,000 ha under traditional, rainfed crop production		2,000 ha under gravity irrigation and improved water management practices
Introducing improved livestock practices and breeds	250 beef producers with 5,000 head and 250 dairy producers with total 2,500 cattle, under traditional practices		250 beef producers with 5,000 head and 250 dairy producers with total 2,500 cattle, under improved feeding practices.
Rural road rehabilitation	0 km rehabilitated		240 km rehabilitated
Fertilizer and chemicals inputs	349 tones N from NPK; 1,358 tons N from Urea		417 tones N from NPK; 1,624 tons N from Urea

Table A10. 2. Results – gross fluxes for the without and with project scenario as well as net carbon balance; all GHG in tCO₂eq

Activities	25 years			Annual		
	Without project	With project	Net carbon Balance	Without	With	Balance
LUC from annual cropland to irrigated rice	0	-150,484	-150,484	0	-6,019	-6,019
Annual crop production	-45,600	-350,480	-304,880	-1,824	-14,019	-12,195
Irrigated rice production	1,596,563	1,241,351	-355,212	63,863	49,654	-14,208
Livestock – beef and dairy	0	216,120	216,120	0	8,645	8,645
Inputs & Investments	213,111	250,878	37,766	8,524	10,035	1,511
Total	1,764,074	1,207,385	-556,689	70,563	48,295	-22,268
Per hectare	25	17	-8			
Per hectare per year	1.0	0.7	-0.3	1.0	0.7	-0.3



The World Bank

Malawi Agricultural Commercialization Project (P158434)

ANNEX 11. AGRI-SPATIAL SOLUTION – a TOOL TO SUPPORT AGRIBUSINESS DEVELOPMENT AND COMPETITIVENESS



Agri-Spatial Solutions to support agribusiness development –

A Joint Approach

A JOINT PRODUCT OFFERING FROM THE
AGRICULTURE AND TRADE & COMPETITIVENESS GLOBAL PRACTICES



Agri-Spatial Solutions - A tool to support agribusiness development and competitiveness

Why agri-spatial solutions?

Greater urbanization, changing dietary patterns and preferences, increased global integration and reduced trade barriers provide massive opportunities for agribusiness development in many low and middle income economies. To seize this opportunity, countries must meet the challenge of raising their productivity and reaching higher levels of efficiency in the sector. Agri-spatial solutions (e.g., agri-parks, agri-clusters and agri-zones), offer improved coordination and agglomeration effects that can reduce logistical and transaction costs, improve quality and food safety management, and spur development—including the spread of agribusiness innovation.

Agri-spatial approaches can support clients in meeting development objectives around job creation, farmer linkages, investment and growth and can provide key benefits (see Box 1). Under appropriate conditions, they can address information, coordination, and other failures, helping to:

1. *Address the remoteness of production areas and reduce transport costs*, thus improving the viability of agro-processors;
2. *Reduce uncertainty for producers* who gain the assurance of consistent demand and clear communication of market requirements (quantity, type, and quality of produce);
3. *Reduce transaction costs* to enable processors to respond better to market changes and exchange information that hones their competitiveness; and
4. *Facilitate coordination within the supply chain* which supports knowledge spillovers that ease the flow of business ideas, innovation and technology and provide economies of scope in the provision of Government to business services.

Box 1: Benefits of agri-spatial solutions

Economic

- Economies of scale/scope (reducing input and service costs, increasing access to technology)
- Network effects (linkages are facilitated, quality improves, learning by doing increases)

Environmental

- Optimized water use
- Re-use waste and byproducts (such as CO₂, manure, heat)

Quality management and food safety

- Allows tracking and tracing
- Allows input/output control
- Makes it easier to control disease and implement biosecurity efforts

Logistics

- Shared storage
- New business models possible by implementation of distribution models
- Additional logistics activities

For example, when food companies operate in spatial proximity, they benefit from agglomeration economies. Clustering agri-food firms makes it easier for them to attract a qualified workforce, suppliers, service providers and customers, providing a private sector-driven basis for market linkages for farmers. Adoption of technology that often requires scale can lead to further innovation and enhance logistics. Together, these improvements deliver important development impacts that can support the twin goals of ending extreme poverty and boosting shared prosperity.



How the WBG can help

The WBG can help clients create inclusive agribusiness growth.

The Agriculture and the Trade & Competitiveness (T&C) Global Practices (GPs) have developed a common approach, reflected in a set of guidelines, to support clients in assessing *when* and *under what conditions* agri-spatial solutions might be appropriate, and if so, *how* to design and implement them successfully. The joint product approach not only provides global good practice guidelines in the design and implementation of agri-spatial solutions for clients, first and foremost, it provides guidance for the upstream dialogue and solutions diagnostics with clients, grounding decisions to invest in agri-spatial solutions on sound analytics and market realities to ascertain whether agri-spatial solutions are the right solution.

Highlights:

Our Competitive Advantage: The Agriculture GP brings agricultural policy and sub-sector development expertise, while the T&C GP offers experience in mobilizing private investment and industrial development, including through spatial approaches. The joint Agriculture and T&C approach on agri-spatial solutions allows analytical and policy design work to proceed based upon common definitions, policy dialogue guidance, good practice project design principles and identified risks and mitigation strategies.

Competitiveness Diagnostic: A competitiveness diagnostic is a key starting point in assessing whether adequate private sector demand exists and whether an agri-spatial solution is an appropriate tool. Results of this diagnostic, which should be aligned with the client's overall policy objectives, support evidence-based grounding to substantiate further exploration.

Establishing appropriate design frameworks: Through the use of the joint guidelines and proven diagnostic approaches, project teams are led through the detailed analysis required to support clients in determining the most appropriate solution to their agribusiness objectives. This enables project teams to help clients establish good-practice frameworks for site selection, agreed performance benchmarks, etc. to focus public investment decisions.

Mitigating Risks: Agri-spatial solutions are subject to common risks, including the need to manage social, environmental and political economy challenges, etc. The joint product offering provides the tools to support project teams to mitigate these risks.

Leveraging the best of WBG instruments for tailored approaches: The joint approach envisages a fully integrated offering of WBG expertise, including that of other GPs (e.g., Transport and ICT, F&M, SURR, etc.). As a joint product with the T&C GP, it also offers the full menu of IFC and World Bank advisory, as well as investment policy and lending instruments and approaches. This allows each solution to be tailored to the specific client based on a common technical grounding and approaches to agri-spatial solutions.

Agri-spatial solutions have the potential to meet development objectives that are market driven and inclusive. They are, however, not a cure-all, especially if the zone, park, or cluster does not align with private sector realities —first and foremost, with market demand. The joint offering is an important tool to guide teams through the evidenced-based approach that can support our clients in raising productivity, supporting job creation and fostering inclusive growth.



ANNEX 12: OPPORTUNITIES AND MARKET UPTAKE

- 1. An assessment conducted during preparation of the proposed project assessed whether key elements of successful “market pull” linkages were sufficiently present in Malawi for the project to include the envisioned agribusiness activities and PA approach.** Private sector off-takers were consulted about potential commercial demand for smallholder production and off-takers’ markets for Malawian agribusiness products. The assessment also looked at the availability and suitability of “enablers” for successful linkages.
- 2. Agricultural commodities still dominate Malawi’s trade, but value-added exports and domestic markets are emerging.** Agricultural products account for 82 percent of exports and 42 percent of imports, with tobacco, sugar, and tea being the dominant products. Other important products are pigeonpeas, oilcrops, and sesame. Processed legumes (such as toor dhal and oils) and livestock products (such as dairy products) have increased in importance as export products and are a focus of the National Export Strategy. Domestic demand for horticultural and dairy products is also expanding. Supermarkets in Malawi are investing considerable resources in training farmers to grow horticultural crops to substitute for produce imported from neighboring countries, mainly South Africa. According to one dairy company, organic growth of the domestic dairy industry is about 12–15 percent annually. Trade focuses on only a few destinations/origins, channeled through Dar es-Salaam (Tanzania), Nacala and Beira (Mozambique), and Durban (South Africa, Malawi’s largest trading partner). China and Dubai are emerging trading partners.
- 3. The assessment of potential off-takers in Malawi shows that buyers see competitive advantages and opportunities to create value addition.** While a credible number of food retailers operate in Malawi, a number of which were met in the course of this assessment, the fresh fruit and vegetable segment is relatively small. Retailers currently import a significant share (up to 80 percent) of their fresh fruit and vegetable from South Africa and cite decreasing reliability and high logistics costs as reasons for wanting to procure more of these products domestically. The Malawian supply chain is significantly underdeveloped. Even large operators like Shoprite do not use wholesalers but maintain a list of telephone numbers of farmers that they might call on. They cite problems of poor quality and inconsistent availability as the main constraint to procuring more produce locally.
- 4. Agribusiness firms in Malawi (such as ETG) have also tapped into a mass market for processed goods like soya chunks and protein drinks.** Compared to the fresh fruit and vegetable retail markets, this market segment is much larger, but it relies on commodities prone to side-selling under contractual and outgrower arrangements. Buyers expressed a strong interest in PA in this segment to ensure the raw supply inputs they need for their growing processing investments. These investments have significant job creation potential, which the mission discussed also from a gender perspective.
- 5. The main constraints to local procurement according to these agribusiness firms are quality and consistency of supply.** Most firms have attempted to operate outgrower and contract farming schemes; as with the more general experience with these schemes documented in Malawi, these firms met with little success. They are reluctant to invest in supply chain development themselves but recognize there is value addition (such as the payment of premiums) that can be captured by producers that are organized and could form partnerships.
- 6. Brokers and off takers are available in Malawi.** The mission met with several entities from private, civil society, and donor projects that could play a role as brokers. Other projects with similar models (USAID’s ADEN project, for instance) confirm these findings. Brokers in Malawi include: National



Smallholder Farmers' Association of Malawi (NASFAM) and NASFAM Commercial (NASCOM); ACE and ACX; MOST; FUM; Technoserve; Land o Lakes; Aden Project (USAID); AGDEVCO; AGRICANE; DAI; CARANA; CASS; SHOPRITE; CHIPIKU; ETG; RAB Processors; Bakhressa.