



AGRICULTURAL FINANCE YEAR BOOK

2022

Towards climate responsive
agricultural finance in Uganda





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About this series

The Yearbook presents views collected from various stakeholders within and outside the agricultural and finance sectors. The authors have synthesized and documented these views and also provided recommendations and conclusions with the aim of improving the state of agricultural finance in Uganda. The Articles presented in this Yearbook and the views expressed therein are those of the author(s).

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TABLE OF CONTENTS

	Acknowledgments	V
	Foreword	Vi
	Executive Summary	Vii
	List of Abbreviations And Acronyms	Viii
	CHAPTER 1: POLICY	1
	1.1 Trends in agricultural lending and leasing	2
	1.2 Guaranteeing agricultural finance in Uganda: The need for a robust legal and regulatory framework for agricultural credit guarantees	10
	1.3 Islamic finance and supporting Uganda's agribusiness sector: Progress, prospects and challenges	17
	1.4 Extending finance to Uganda's smallholder farmers: A case of the block allocation loan product.	26
	1.5 Agricultural credit facility: A review of past reforms and progress during the thirteen years of implementation.	32
	CHAPTER 2: INNOVATIONS AND REGULATED FINANCIAL INSTITUTIONS OPERATIONS	44
	2.1 Promoting movable collateral for financing agriculture: The case of the Security Interest in Movable Property Registry System (SIMPO)	45
	2.2 Broadening financing for agribusiness actors in Uganda: Experiences from the pilot off-taker partnership initiative of Centenary Bank	52
	2.3 Managing borrowers' riskiness to improve efficiency in agricultural lending: The case for Finca's credit scoring innovation	61
	2.4 Implementing e-agricultural extension in Uganda: The soma e-learning innovation	69
	2.5 Introducing alternative credit scoring among dairy cooperatives in Uganda: The case of the EMATA App	79
	CHAPTER 3: FINANCING OF AGRICULTURAL VALUE CHAINS	84
	3.1 Identifying input credit financing opportunities in Uganda's sugarcane sector	85
	3.2 Identifying investment opportunities in parish development model value chains	94
	3.3 Leveraging the village-based agent model to increase competitiveness of locally produced rice	101
	3.4 Recent developments in Uganda's warehouse receipt system	106
	CHAPTER 4: GREEN FINANCING AND OTHER CROSSCUTTING ISSUES	115
	4.1 Fast tracking integration of climate risk mitigation policies in Uganda's agribusinesses	116
	4.2 Attracting global climate financing for achieving Uganda's green growth aspirations	121
	4.3 Unlocking barriers to financial services access for marginalised rural savings groups: Focus on refugee Communities.	129
	4.4 Prerequisites for agriculture sector financing in Uganda through agri-tech platforms	134
	CHAPTER 5: MANAGING AGRICULTURAL RISKS	140
	5.1 Uganda agriculture insurance scheme: An update on implementation progress	141
	5.2 Implications of the Russia-Ukraine war on Uganda's fertiliser and wheat supply	149
	5.3 De-risking Uganda's agro-manufacturing subsector: Experiences from Uganda development corporation	156
	5.4 Monitoring responsible agricultural investment on land in Uganda: The case of GIZ's investment compliance and Monitoring tool	163
	CHAPTER 6: FINANCING AGRO-INDUSTRIALISATION PROGRAMME: SOME ISSUES	171
	6.1 Can the programme-based public financing deliver Uganda's agro-industrialisation agenda?	172
	6.2 Tracking ancillary agricultural financing for supporting Uganda's agro-industrialisation programme	181
	6.3 Uganda's agro-industrialisation programme at mid term: Progress and prospects	192
	Agricultural Finance Yearbook Series	199

LIST OF FIGURES

Figure 1: Total agricultural lending recovers but not to pre-COVID-19 level	3
Figure 2: Number of regulated financial institutions has stagnated in Uganda	4
Figure 3: Financial institutions reduced physical branches between 2019 and 2020	5
Figure 4: Commercial banks dominant agricultural lending	5
Figure 5: Private sector credit for Agricultural leasing remains persistently low	7
Figure 6: New advances to the agricultural sector remain short term.	7
Figure 7: Structure of Islamic banking operation	19
Figure 8: MSC Islamic finance portfolio according to the different financing modes	20
Figure 9: Uptake in value of loans disbursed	28
Figure 10: Gender utilisation of ACF under the Block Allocation arrangement, September 30, 2022	29
Figure 11: Allocation of block allocation loan among agricultural enterprises, 2022	29
Figure 12: Government remittances to the BoU Escrow and ACF capital Accounts (2009/10 -2021/22) ³	33
Figure 13: Annual total ACF loan disbursements	33
Figure 14: Cumulative ACF disbursement by PFI as of June 2022	35
Figure 15: Shares of the different activities funded under the ACF scheme, percent	35
Figure 16: How SIMPO works	46
Figure 17: Benefits of SIMPO	47
Figure 18: Trends in SIMPO account creation by financial institutions (2019-2022)	47
Figure 19: Security interest registrations by different secured creditors	48
Figure 20: Assets registered as collateral under the SIMPO (2019-2022)	48
Figure 21: SIMPO registration by different sectors	49
Figure 22: Structure of FINCA's credit scoring Innovation	63
Figure 23: Implementation structure of FINCA's Credit Scoring- New and Existing Customers journey	63
Figure 24: Implementation structure of ADC's e- agricultural extension platform- New and Existing Customers journey	72
Figure 25: SOMA e-learning enrollment (2019-2022)	75
Figure 26: Stagnation in sugarcane productivity (2000-2020)	86
Figure 27: Source of support when farmers started growing cane (%)	87
Figure 28: Decline in miller input credit financing over time (%)	88
Figure 29: Individual and group sources of credit to cane growers	88
Figure 30: On-farm returns and cost profile of sugarcane (UGX/acre)	91
Figure 31: Diners Group Limited VBA Business Model	103
Figure 32: TGPU Regional warehouse operating model	111
Figure 33: Structure of a climate finance framework	126
Figure 34: Insurance claims per identified peril	146
Figure 35: Share of imports in Uganda's wheat supply (%)	151
Figure 36: Uganda's NPK fertiliser import dependence on Russia	151
Figure 37: Changes in the price of NPK fertilisers	152
Figure 38: Changes in the international and domestic price for wheat (March 2021-October 2022)	152

Figure 39: Consumer Price Index (CPI) for selected wheat and related products	153
Figure 40: Uganda's wheat imports from Russia and Ukraine (March 2021-October 2022)	153
Figure 41: A comparison of the baseline and midterm Investment compliance levels by district	167
Figure 42: A comparison of average compliance scores per section	167
Figure 43: Comparative analysis of investment compliance assessment results from 2021 and 2022	168
Figure 44: The institutional framework for the Agro-industrialisation programme	175
Figure 45: An extract of the national budget framework paper on the vote budget allocation	176
Figure 46: Budget allocation and performance for the agro-industrialisation programme in FY 2021/22	177
Figure 47: Budget allocation to the agriculture sector, 2015/16-2021/22	182
Figure 48: Budgetary allocation for agriculture vis-a-vis agro-industry in Uganda (percent)	183
Figure 49: Budget allocations for agro-processing and agro-manufacturing, 2017/18 – 2021/22	185
Figure 50: Budget allocations for Uganda warehouse receipt system, FY 2015/16 - FY 2021/22	188
Figure 51: Annual ACF disbursements during AGI implementation period	193

LIST OF TABLES

Table 1: Recent credit guarantee schemes in Uganda	13
Table 2: Uptake of block allocation funding by region as at 30 September 2022	29
Table 3: Value and number of high-risk borrowers screened (2020-2022)	65
Table 4: Awareness creation by the ADC for the SOMA e-learning platform.	74
Table 5: Digital training by the ADC	76
Table 6: Emata performance progress as of November 2022	81
Table 7: Cane productivity is higher on nucleus estates compared to out-grower farms (MT per hectare)	86
Table 8: Registration status of outgrower sugarcane farmers (%)	87
Table 9: Value of the sugarcane business (Billion UGX)	90
Table 10: Input costs incurred by sugarcane outgrowers (UGX per acre)	90
Table 11: Trends in reported regional sugarcane price trends, 2017-2021(UGX/metric Tonne)	91
Table 12: Out-growers' participation in sugarcane harvesting and marketing (%)	92
Table 13: Parish Development Model priority commodities	95
Table 14: The most competitive agricultural raw products of Uganda	96
Table 15: The largest growing product markets	97
Table 16: Commercial investment opportunities in PDM value chains	98
Table 17: Sub-commercial investment opportunities in PDM value chains	99
Table 18: Rice yield increment	104
Table 19: Summary of review of recent supportive policy frameworks for commodity trade in Uganda	108
Table 20: Budget allocations for trade and marketing related activities, UGX billions (2015/16 to 2021/22)	109
Table 21: Government approved UAIS premium subsidy allocation (per farmer category)	143
Table 22: Description of insurance products offered under the UAIS	143
Table 23: Trends in approved government subsidies (for payment of basic premiums)	144
Table 24: Regional coverage and outreach of the UAIS	144

Table 25: Value of insured crops/animals disaggregated by region	145
Table 26: UAIS claims as at end of FY2020/21	145
Table 27: Performance of Mpanga growers tea factory after UDC's intervention	160
Table 28: Performance of Mabale growers tea factory after UDC's intervention	161
Table 29: AGI programme outcome indicators performance	178
Table 30: Budget allocation for agricultural infrastructure, 2015/16 -2021/22	184
Table 31: Budget allocations for agro-manufacturing related activities, 2015/16 -2021/22	186
Table 32: Budget allocations for trade and marketing related activities, 2015/16-2021/22	187
Table 33: Budget allocations for agriculture credit and other financing schemes	188
Annex: Table A: Trends in the regulated financial institutions	9
Annex Table B: Disbursements under the block allocation (2018-2022)	31
Annex: Table C: Evolution of the ACF –Summary (Year 2010 to 2019)	43

LIST OF BOXES

Box 1: Steps of the process flow automations	64
Box 2: Summary of the current WRS installed capacity	112
Box 3: CFS-RAI principles	166

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FOREWORD

The 2022 Agricultural Finance Yearbook, the twelfth edition in the series, offers an in-depth analysis of the Agricultural financing landscape in Uganda. The theme for this edition is **“Towards climate responsive agricultural finance in Uganda”**. This theme is timely and in line with the global trend, given that international funding is declining and non-concessional sources are getting more expensive. Climate-smart investments are financed using limited concessional and non-concessional sources of global investment. As such, developing countries like Uganda must reform their fiscal framework to provide clarity, incentives, and capacity building to attract climate-smart financing.

Uganda’s Agriculture Sector remains vulnerable to both production and market risks. Over the years, the recurrent emergency of destructive pests and disease, drought, excessive rainfall, hailstorms, windstorms, and price fluctuations have affected agricultural production and wealth accumulation. To respond to the above risks, the Government introduced measures to de-risk the sector using risk-based financing instruments in the market. For example, the Uganda Agricultural Insurance Scheme was started in 2016/17 under a public-private partnership to cushion farmers against production losses and mitigate financial losses. Beyond mitigating production risks, the Government has also provided working capital finance for grain trading under the Agricultural Credit Facility (ACF). To further improve the commodity trade finance, the Government enacted the Warehouse Receipt Act and established the Uganda Warehouse Receipt System Authority to mitigate the agriculture sector against market risk.

Uganda’s Climate Change policy focuses on adaptation and mitigation efforts as critical priorities, intending to ensure a harmonised and coordinated national transition to a climate-resilient and low-carbon development path. To foster climate adaptation and mitigation, the Government established a climate financing facility worth UGX 50 billion with the Uganda Development Bank towards financing investments in climate-smart agriculture, renewable energy, sustainable waste management, climate resilient infrastructure, low carbon industry and eco-tourism.

The country passed the National Climate Change Act 2021 to manage national reactions to the consequences of climate variability. The enactment of the National Climate Change Act 2021 led to forming a National Climate Change Task Force to handle policy and regulatory considerations. Bank of Uganda (BoU), as a member of the Task Force, is engaging with supervised financial institutions to address Environmental Sustainability Governance (ESG) issues and standards. Non-bank-based actors such as Private Equity and Public-Private Partnerships (PPPs) have a role in ensuring that climate-smart financing is available by providing much-needed capital, expertise, and resources to support sustainable agricultural practices.

Applying ESG principles in financing will truly advance Uganda’s efforts to address the challenges of Climate Change resilience, agricultural productivity and economic transformation. I highly recommend this insightful book to all stakeholders working in, or with an interest in, the agricultural sector in Uganda.



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Minister of Finance, Planning and Economic Development

EXECUTIVE SUMMARY

The first chapter of the Yearbook delves into aspects of government's policy and strategies for providing an enabling environment to support agricultural finance. This chapter reveals that Uganda lacks an elaborate legal and regulatory framework for operationalisation of agricultural credit guarantee schemes and agricultural leases. Particularly, the taxation of agricultural leases in Uganda is not streamlined. And, while the Block allocation product was introduced under the Agricultural Credit Facility (ACF) to target smallholder lending, most of the target beneficiaries belong to Savings and Credit Cooperative Organisations (SACCOs), which are not part of the Participating Financial Institution (PFI) implementation modality. Thus, the ACF eligibility criteria needs to be reviewed to incorporate Tier-4 institutions, including licensed SACCOs.

Chapter Two presents recent innovations to support provision of agricultural finance to smallholder farmers. Although these digital innovations have demonstrated great potential to increase credit access for agricultural borrowers, several challenges persist. Considering the implementation of the Security Interest in Movable Property Registry System (SIMPO), the innovation is limited by lack of lender and borrower awareness beyond Kampala. In addition, the Government needs to urgently ease entry integration barriers with the National Identification and Registration Authority database to facilitate digital client verification and application of FINCA's credit scoring innovation. Besides, effective implementation of the Soma e-learning innovation requires investment into developing local contents aligned with national curriculums, investment in digital literacy and development of digital infrastructure, specifically internet accessibility and power supply in the rural areas.

The Third chapter presents critical issues regarding financing of agricultural value chains in Uganda. The evidence in this chapter reveals that input credit financing for the Uganda's sugarcane value chain is threatened by a persisted withdraw of millers, the erstwhile source of input credit for sugarcane outgrowers. This withdrawal has been orchestrated by a breakdown of the cane registration support system. Considering the rice value chain, effective implementation of the Uganda's village-based agent model to improve rice productivity requires supporting access to aggregation infrastructure, particularly storage facilities and continued investment in irrigation schemes to reduce productivity loss due to recurrent drought. On the contrary, financing of agricultural value chains through the warehouse receipt systems in Uganda requires reforming the regulations in the Warehouse Receipt System Act of 2006 to allow private entities issue tradeable electronic warehouse as well as putting in place an appropriate legal enforcement system to regulate the quality of warehoused commodities.

The last chapter in this Yearbook presents interventions aimed at integrating climate sustainability into conventional agricultural finance. The evidence reveals that financial sector efforts towards climate risk mitigation in Uganda is gaining steam. At the financial institution's level, several measures have been implemented through internal and external corporate social responsibility and customer relationship management initiatives. To deepen such climate sensitive initiatives at the agribusiness level, Uganda will need to cascade down the Environmental, Social and Governance (ESG) policies that are already being implemented at the financial institution levels, to the enterprise and community levels. The cascading shall involve integrating of 'green' contractual clauses by financial institutions and development actors extending support to only compliant agribusinesses. In addition, Uganda will have to underpin the ESG policies by strong operational, monitoring and evaluation frameworks that align with the existing and upcoming national and international regulatory standards.

LIST OF ABBREVIATIONS AND ACRONYMS

aBi	Agricultural Business Initiative
ACF	Agricultural credit facility
ADC	Agribusiness Development Centre
AfDB	African Development Bank
AFYB	Agricultural Finance Yearbook
AGI	Agro-Industrialisation
AGRA	Alliance for a Green Revolution in Africa
AI	Artificial Insemination
AIC	Agricultural Insurance Consortium
AIP	Agro-Industrialisation Programme
ALG	Agricultural Loan Guarantee
ARTs	Assisted Reproductive Technologies
AU	African Union
BMAU	Budget Monitoring and Accountability Unit
BoU	Bank of Uganda
CAADP	Comprehensive Africa Agriculture Development Programme
CARI-EA	Competitive African Rice Initiative
CBR	Central Bank Rate
COVID	Corona Virus Disease
CDO	Cotton Development Organisation
CGS	Credit Guarantee scheme
CIs	Credit Institutions
CMA	Capital Markets Authority
CPI	Consumer Price Index
CRM	Customer Relationship Management
CSO	Civil Society Organisation
DDA	Dairy Development Authority
DeCoRM	Development of Rice Markets in Eastern Uganda
DGL	Diners Group Limited
DLG	District Local Governments
ECGS	Export Credit Guarantee Scheme
EPRC	Economic Policy Research Centre
ESG	Environmental, Social and Governance
EU	European Union
FAO	Food and Agriculture Organisation

FAOSTAT	Food and Agriculture Organisation of the United Nations
FBOs	Farmer-Based Organisations
FCDO	Foreign, Commonwealth and Development Office
FI	Financial Institution
FIA	Financial Institutions Act
FINCA	Foundation for International Community Assistance
FinTech	Financial Technology
FOs	Farmer Organisations
FSDU	Financial Sector Deepening Uganda
FY	Financial Year
GDP	Gross Domestic Product
GIZ	Gesellschaft für Internationale Zusammenarbeit
GoU	Government of Uganda
HS	Harmonised System
ICT	Information Communication Technology
IFC	International Finance Corporation
ISDB	Islamic Development Bank
IVR	Interactive Voice Response
JAP	Joint Action Plan
LGs	Local Governments
MAAIF	Ministry of Agriculture, Animal Industries and Fisheries
MATIP	Markets and Agricultural Trade Improvement Programme
MCCs	Milk Collection Centers
MDAs	Ministries, Departments, and Agencies
MDIs	Microdeposit Taking Institutions
MEMD	Ministry of Energy and Mineral Development
MFIs	Microfinance Institutions
MoA	Memorandum of Agreement
MoFPED	Ministry of Finance Planning and Economic Development
MoGLSD	Ministry of Gender, Labour and Social Development
MoLG	Ministry of Local Government
MoLHUD	Ministry of Lands, Housing and Urban Development
MoSTI	Ministry of Science Technology and Innovation
MoU	Memorandum of Understanding
MoWE	Ministry of Water and Environment
MoWT	Ministry of Works and Transport
MSC	Microfinance Support Centre
MSME	Micro, Small and Medium Enterprises

MTIC	Ministry of Trade, Industries and Cooperatives
MTR	Mid Term Review
NAADS	National Agricultural Advisory Services
NAGRC	National Animal Genetic Resource Centre
NARL	National Agricultural Research Laboratories
NARO	National Agricultural Research Organisation
NBFP	National Budget Framework Paper
NCCP	National Climate Change Policy
NDC	Nationally Determined Contributions
NDP	National Development Plan
NDPs	National Development Plans
NEMA	National Environment Management Authority
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organisations
NPA	National Planning Authority
NPDP	National Physical Development Plan
NPK	Nitrogen, Phosphorus, and Potassium
NTE	Non-Traditional Exports
OECD	Organisation for Economic Cooperation and Development
OOB	Output-Oriented Budgeting
PBB	Programme-Based Budgeting
PBS	Programme Budgeting System
PDM	Parish Development Model
PFI	Participating Financial Institution
PIAP	Programme Implementation Action Plan
PPP	Public-Private Partnership
PWG	Programme Working Group
RCA	Revealed Comparative Advantage
RCDF	Rural Communications Development Fund
RFIs	Regulated Financial Institutions
RGIL	Responsible Governance of Investments in Land
SACCOs	Savings and Credit Cooperative Organisations
SDG	Sustainable Development Goal
SIMPO	Security Interest in Movable Property Registry System
SME	Small and Medium-Sized Enterprises
SMSFs	Small- and Medium-Scale Farmers
SPS	Sanitary and Phytosanitary
TGCU	The Grain Council of Uganda

UAIS	Uganda Agriculture Insurance Scheme
UBOS	Uganda Bureau of Statistics
UCA	Uganda Cooperative Alliance
UCDA	Uganda Coffee Development Authority
UCE	Uganda Commodities Exchange
UDB	Uganda Development Bank
UDC	Uganda Development Corporation
UFFE	Uganda National Farmers Federation
UGX	Uganda Shillings
UIA	Uganda Investment Authority
ULRC	Uganda Law Reform Commission
UMRA	Uganda Microfinance Regulatory Authority
UN	United Nations
UNBS	Uganda National Bureau of Standards
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environmental Programme
UNHCR	United Nations High Commission for Refugees
UNHS	Uganda National Household Survey
URSB	Uganda Registration Services Bureau
USAID	United States Agency for International Development
USD	United States dollar
USMA	Uganda Sugar Manufacturers Association
USRB	Uganda Registration Services Bureau
UWRS	Uganda Warehouse Receipt System Authority
VAT	Value Added Tax
VBA	Village Based Agent
VSLAs	Village Saving and Loan Associations
WRS	Warehouse Receipts System





1

CHAPTER POLICY

1.1 TRENDS IN AGRICULTURAL LENDING AND LEASING

Brian Sserunjogi¹

1.1.1: Background

Since its first edition in 2007, the Agricultural Finance Yearbook (AFYB) has provided information on lending to the agricultural sector by financial institutions regulated by the Bank of Uganda. This first article in this 12th edition of the AFYB, discusses trends in cash advances by Regulated Financial Institutions (RFIs) to the agriculture sector in Uganda in the period 2007 to 2022, and general information on RFI lending to the sector². The analysis undertaken focuses on new advances to the agricultural sector rather than on outstanding portfolios. This approach provides a more dynamic view of development in lending to the sector. Unlike the previous, this 12th edition of the Yearbook also presents information on leases to the agricultural sector.

In broad terms, this article examines trends in total agricultural lending; the level of participation of RFIs in agricultural lending; deepening of agricultural lending as reflected in the numbers of RFIs; and disbursements made to the different segments of the agricultural value chains and actors.

1.1.2: Trends in Total Agricultural Lending

In Uganda, use of financial technological (FinTech) innovations for disbursement of new loans to the agriculture sector rapidly increased following the emergence of COVID-19 in 2020, with especially growth in agency banking. Nevertheless, disbursement of new loans remains lower than their pre-COVID-19 levels.

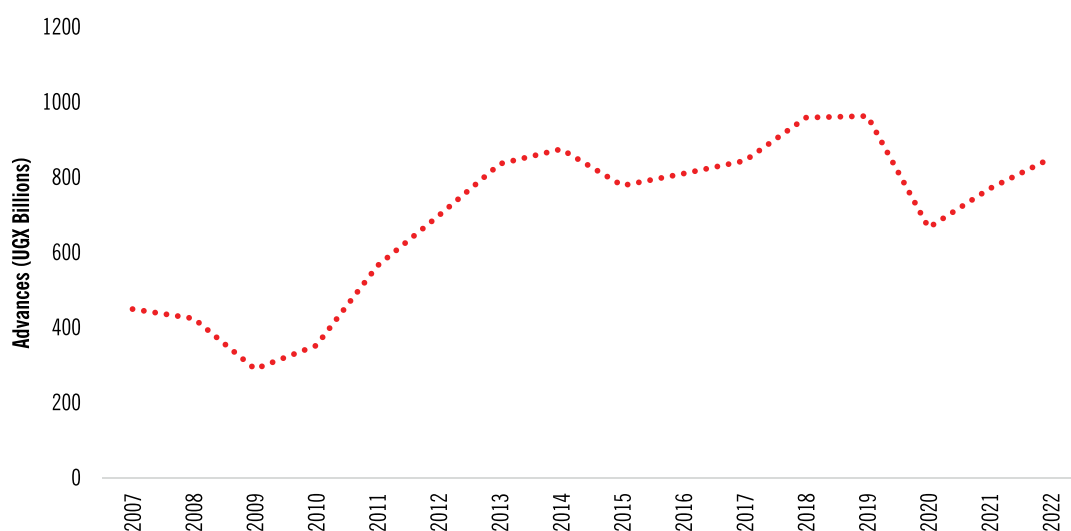
Private sector credit to the agriculture sector is affected by both international and domestic macroeconomic factors as well as implementation of various Government policies and programmes. Indeed, evidence presented in Figure

1 reveals that growth in new loan advances to Uganda's agricultural sector in the period 2009-2014 was more impressive than during 2015-2019. Between 2009 and 2014, total agricultural lending increased three-fold from UGX 291 billion to UGX 876 billion (Figure 1). This rapid growth in agricultural lending emanated from various sources. First was the establishment of the Agricultural Credit Facility (ACF) by the Bank of Uganda in 2009. Government Budget allocation towards the ACF increased from UGX 20.5 billion in 2009/10 to UGX 30 billion in 2014/2015.² Second was the number of Tier-1 institutions (or Commercial Banks) that increased from 21 in 2009 to 25 in 2015.³ Because commercial banks provide the largest share of agricultural loans, the licensing of four new banks between 2009 and 2014 substantially impacted disbursement of agricultural loans in the period.

On the other hand, total new loan advances to the agriculture sector declined between 2014 and 2015 before recovering in 2016 (Figure 1). The decline could have resulted from the tight monetary policy stance adopted by Bank of Uganda (BoU) to control inflation during the period in the buildup to the 2016 general elections. Indeed, after 2014, the Central Bank Rate (CBR) increased to 14 percent in 2015 and to 14.9 percent in 2016⁴. After, however, the CBR declined from 10.4 percent in 2017 to 9.3 percent by the end of 2018. This led to a gradual recovery in new loan disbursements to the agriculture sector (Figure 1).

It must also be noted that, between 2018 and 2019, new growth in agricultural loan disbursements partly emanated from reduction in operational costs and reduced risk aversion due to increased use of financial technological (FinTech) innovations by financial institutions, especially in agency banking that eased their reach to the previously unbanked. In just 12 months from January to December 2019, the number of Bank Agents rose from 4,022 to

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Figure 1: Total agricultural lending recovers but not to pre-COVID-19 level

Source: Author's construction based on BoU database

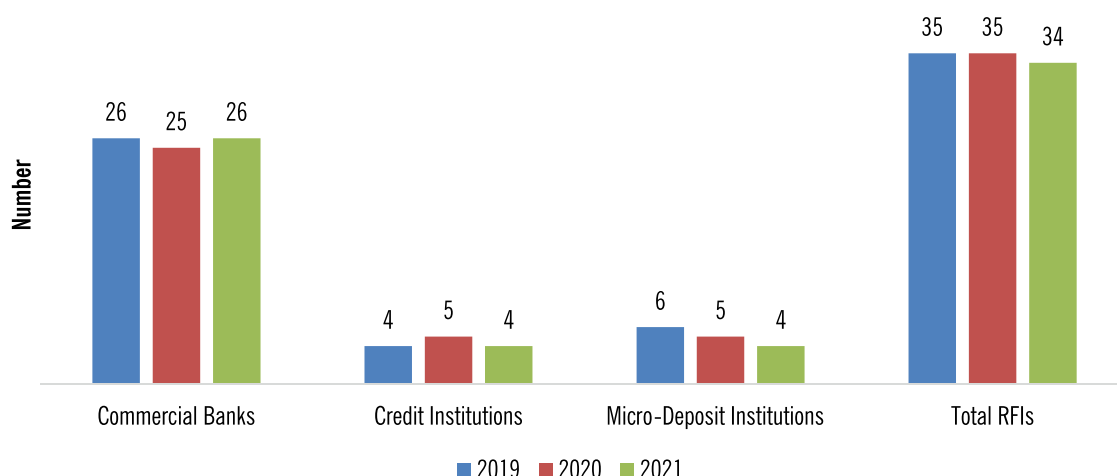
11,330; a 10 percent month-on-month growth rate. All these positively impacted new lending to the agricultural sector during the period.

Between 2019 and 2020, however, new loan advances to Uganda's agricultural sector drastically declined (by 31 percent), from UGX 964 billion in 2019 to UGX 667 billion by end of 2020 (Figure 1). This large decline in disbursement of new loans for agriculture during the period emanated from the emergence of the COVID-19 pandemic in 2020 and the resultant measures undertaken by financial institutions to reduce heightened health risks and maintain capital and liquidity buffers. Consequently, banks increased their investment in Government Securities and holding of cash balances from 21.9 percent to 26.3 percent while their shares of loans and advances to the Private Sector reduced from 44.0 to 42.5 percent over the year to December 2020 (BoU, 2020). At the same time, banks reduced physical activities in branches and moved to digital platforms, such as Agency and internet banking, mobile banking and mobile money transactions to maintain social distance while expanding geographical coverage (*ibid*). Bank branches decreased from 580 in 2019 to 566 in 2020 and, at the same time, total number of automated teller machines (ATMs) operated by Commercial Banks decreased from 851 to 837 (*ibid*).

Following the above adaptation measures by commercial banks, annual growth in new private sector credit to the agriculture sector was only 2.1 percent by December 2020, compared to 18.1 percent in December 2019. Nonetheless, the recent (2021-2022) recovery of the economy following rollout of the COVID-19 vaccination campaign and phased re-opening of the economy facilitated economic rebound and enhanced prospects for growth in lending. Commercial banks registered the strongest growth in credit during 2021, of 8.8 percent, with total lending of UGX 17.7 trillion. Total loans from all RFIs also grew by 6.3 percent by December 2021 compared to 12.6 percent registered by December 2020, with a total lending of UGX 18.4 trillion (BoU, 2021). In the same period, disbursements by MDIs increased by 2.3 percent, while those by CIs contracted by 58.4 percent, mainly because of upgrade of the Post Bank from a Credit Institution to a Commercial Bank (*ibid*). Going forward, the improved lending environment will likely reopen and enhance opportunities for agricultural lending in the country.

1.1.3: Trends in Regulated Financial Institutions in Uganda

Based on available data, the number of Regulated Financial Institutions (RFIs) in Uganda has been oscillating while

Figure 2: Number of regulated financial institutions has stagnated in Uganda

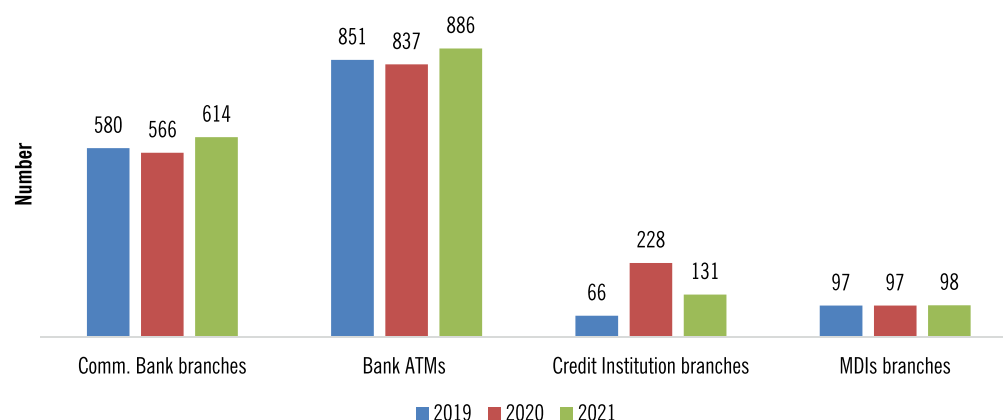
Source: Author's construction based on data from BoU annual supervision reports (various years)

largely remaining stable over the last five years. Although it remained stagnant between 2015 and 2016, the number of commercial banks reduced to 24 upon the closure of Crane Bank in October 2016 (See Table 1 Annex). This number (24) stood until September 2019 when the number of commercial banks in the country increased to 26 (Figure 2) when the Central Bank granted commercial banking licenses two banks - Afriland First Bank (Uganda) Limited, and Opportunity Bank (Uganda) Limited that had been operating as a Tier 2 Credit Institution. Earlier in March 2019, BRAC Microfinance Limited had also been granted a MDI (Tier 3) license that turned it into a deposit-taking Microfinance Institution, thus resulting in increase in the number of MDIs from 5 in 2016 to 6 in 2019 (Figure 2).

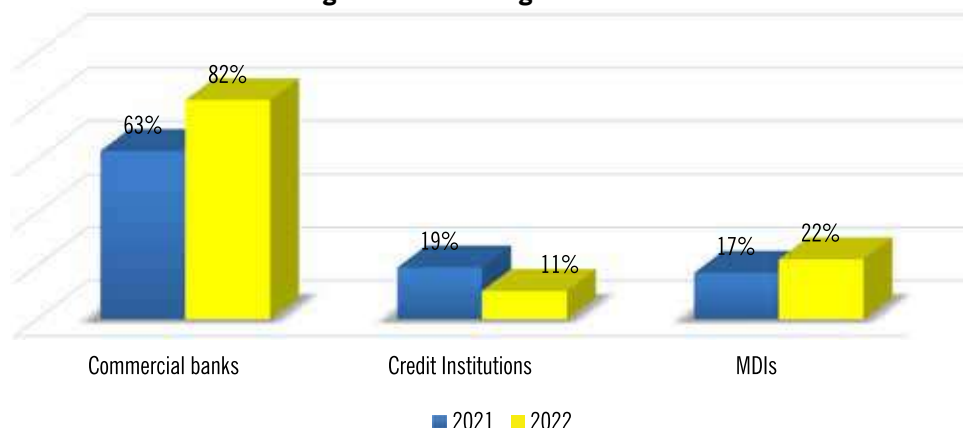
In 2020, the number of commercial banks declined to 25 from 26 in 2019 following the merger of NC Bank (Uganda) Limited and CBA Bank (Uganda) Limited to create NCBA Bank (Uganda) Limited effective June 15, 2020. However, in 2021, Post Bank was granted a Tier 1 license to operate as a commercial bank which restored the number of commercial banks to 26. In the same year, Bank of Uganda (BoU) granted Yako Bank Limited, previously a Microfinance Deposit-Taking Institution, license to conduct business as a Credit Institution (MDI).

The above observed trend in RFIs has policy implications not only for credit flow to the agricultural sector but also for all the financial sectors, particularly in regards to financial literacy, financial services innovations, digitalization of financial services and cyber-security. For instance, with emergency of the COVID-19 pandemic in 2019-2020, banks opted to reduce their branch and ATM networks. The total number of bank branches decreasing from 580 in 2019 to 566 in 2020; while the total number of ATMs operated by commercial banks decreased from 851 in 2019 to 837 in 2020 (Figure 3). These were prudent responses by the banks to the COVID-19 pandemic through increased uptake of digital channels⁵ to uphold social distancing and minimise costs while maximising remote geographical coverage for financial services.

Given the importance and increased uptake of digital connectivity by Uganda's financial sector, Government needs to close those gaps that hinder digital access to financial services. Indeed, while about half of Uganda's population possesses mobile phones, only 10 percent (1.9 million) of the people have access to the internet (FSDU, 2018). There also exist huge disparities in both smartphone and internet access, with males and urban residents having greater access.

Figure 3: Financial institutions reduced physical branches between 2019 and 2020

Source: Author's compilation based on statistics in the BoU Annual supervision reports (various years)

Figure 4: Commercial banks dominant agricultural lending

Source: Author's computation based on BoU database

1.1.4: Agricultural Lending by Category of Financial Institutions

Analysis of new agricultural loan disbursements by category of RFIs reveals that commercial banks remain the main contributors to new loan advances to Uganda's agricultural sector, accounting for over 60 percent, with contribution of Credit Institutions, Micro-deposit taking Institutions and lower-level financial institutions remaining meagre (Figure 4).

Although having wider geographical spread and greater capacities to adopt technological innovations and to mobilise financing for on-lending, commercial banks mainly target large-scale farms and agricultural firms involved in commodity processing. They also have stringent loan requirements and limited outreach outside urban areas. These attributes limit access of small-holder

farmers to ACF and other resources for agriculture held by commercial banks. Also, while they are the main channels through which smallholder agricultural sector players access credit, lower Tier financial institutions (i.e., CIs and MDIs) have not been incorporated in the disbursement of the Agricultural Credit Facility.

As pointed out by BoU (2022), the CIs and MDIs are currently limited in their participation in disbursement of ACF because of various factors. Specifically, Tier 4 financial institutions have not yet been accredited to participate in the ACF scheme; while for other RFIs, such as CIs and MDIs, participation is constrained by the lengthy ACF loan write-off process that requires parliamentary approval. RFIs also hold the fear that ACF lending yields far lower interest returns and income earnings compared to other agricultural/business products.

According to UBoS (2020) also, 7.2 percent of households in Uganda obtain capital for business expansion from SACCOs⁶. This implies that the majority of smallholder farmers who are Uganda's primary producers of crops and livestock access credit from local Savings and Credit Cooperatives (SACCOs), Village Saving and Loan Associations (VSLAs), Rotating Savings and Credit Associations, Community-Based Organisations, moneylenders and family members with little and not from the ACF that is meant to uplift the country's agriculture.

Given the fact that ACF funds are largely channeled through Tier 1 commercial banks, therefore, Government must devise more functional financial delivery mechanisms to help increase access by smallholder farmers to affordable agricultural credit under the ACF loan scheme which is Uganda's largest public-private programme for agricultural credit delivery. These delivery mechanisms could entail Tier 1 PFIs liaising with lower Tiers, such as SACCOs and VSLAs, to directly deliver ACF funds. To further ensure success, only Tier IV microfinance institutions regulated under the Uganda Microfinance Regulatory Authority (UMRA) could be enabled to participate in this arrangement.

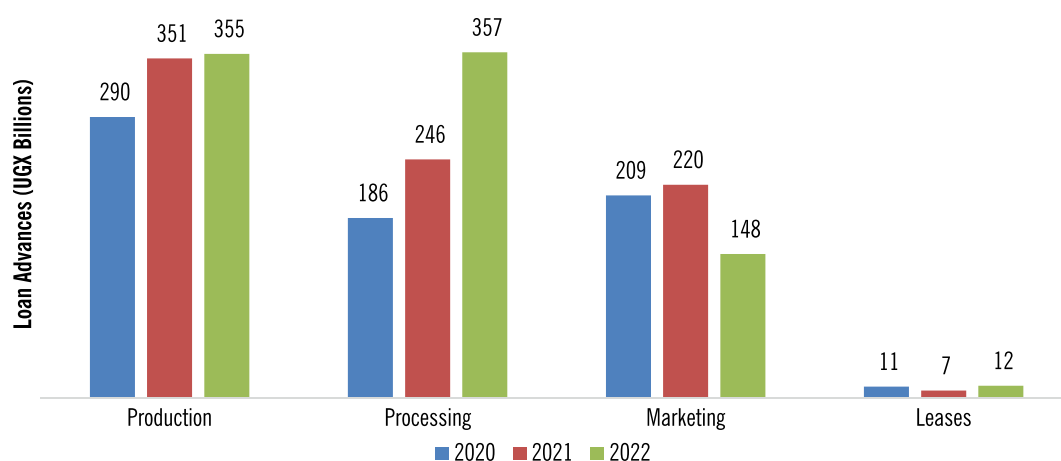
1.1.4: Agricultural Lending for Value-Chain Activities

Considering private sector credit for the agriculture sector by activity, the volumes of credit flow towards production and agro-processing have been highest while credit flow towards agricultural leasing has remained persistently meagre (Figure 5). Available data show that, overall, since reopening of the economy in 2021 following the COVID-19 economic slowdown of 2020, agricultural credit flow towards production, processing and leasing registered significant recoveries. Private sector credit flow to the agro-processing segment registered the highest recovery in agricultural loan disbursements, increasing by two-fold from UGX 186 billion in 2020 to UGX 357 billion by December 2022.

The rapid expansion of credit for agro-processing was partly enabled by opportunities that emerged for agro-processing which the onset of the COVID-19 pandemic which curtailed food access and distribution and increased demand for maize flour (BoU, 2022). This, coupled with the then increasing influx of refugees from neighbouring countries, catalysed need for investments in grain processing for value addition. As such, banks increased financing for acquisition of milling machines for maize, wheat, rice and other grain commodities (*ibid*).

After agro-processing, agricultural credit flow to the production segment also registered significant improvement, rising by 22 percent from UGX 290 billion in 2020 to UGX 355 billion by December 2022. This recovery is largely buoyed by the amendments to the ACF Memorandum of Agreement (2018) that allowed for financing of agricultural inputs, farm expansion, and by the revitalization of efforts to operationalise the Block Allocation Product, a loan product under the ACF that targets smallholder farmers and micro-borrowers engaged in primary production (*ibid*).

In contrast, whereas the flow of credit towards agricultural leasing also improved, its volume has remained persistently meagre compared to lending for the other activities; with annual new loan disbursements for leases averaging only UGX 10 billion in the study period. Wangwe (2021) points out that the poor credit flow for agricultural leasing in Uganda stems from the inappropriate legal and regulatory framework that is characterised by treatment of agricultural leases under the general banking laws, which treatment presents enforcement challenges. In particular, the existing legal framework focuses on loan recovery which when applied to leases strains lessor-lessee relationships and ends up in loss of leased assets or failure in recovery (*ibid*). Further constraining growth in agricultural leasing are unfavourable tax laws for leases associated with the inability of lessors to claim capital allowances on leased assets. In addition, because of capacity gaps, particularly limited local leasing expertise within Uganda's financial sector, banks prefer to offer

Figure 5: Private sector credit for agricultural leasing remains persistently low

Source: Author's computation based on BoU database

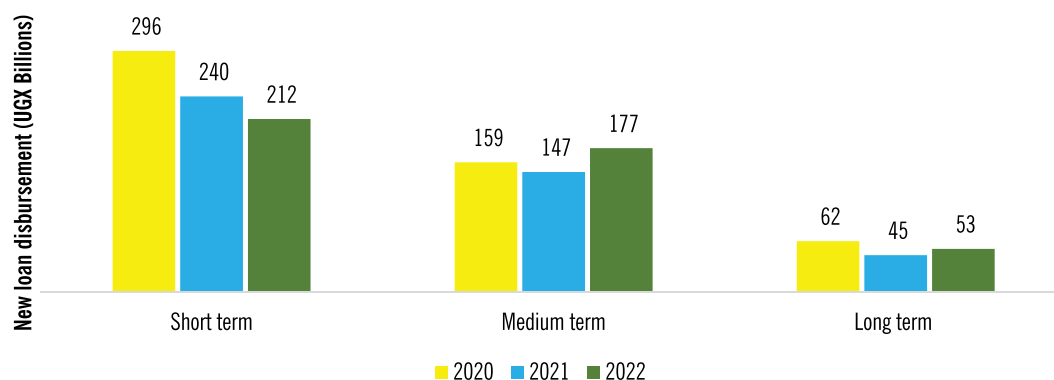
asset loans rather than leases.

1.1.5: Agricultural Lending by Loan Tenure Category

As evident by the categorisation of agricultural lending based on loan duration or repayment periods (Figure 6), new loans disbursed to the agriculture sector remain largely short-term in nature, largely maturing in less than one year. Whereas the volume of new short-term loan disbursements repayable in less than one year declined by 28 percent, from UGX 296 billion in 2021 to UGX 212 billion in 2022, short term credit of this nature still contributed 48 percent in total new agricultural credit disbursement by 2022 (Figure 6).

Conversely, growth of the medium-term credit to the agriculture sector repayable within a period of three years grew by 20 percent, increasing from UGX 147 billion in 2021 to UGX 177 billion in 2022 (Figure 6). On the other hand, long-term credit repayable in period exceeding three years stagnated at UGX 53 billion in the last three years.

The above trends in agricultural lending reflect the riskiness of the sector despite past Government interventions to de-risk it and attract private credit. Despite the operationalisation of the ACF and the Uganda Agricultural Insurance scheme, commercial banks remain reluctant to bring in patient capital. Bamwine (2019) points out that banks and other RFIs are little attracted to agricultural de-risking programmes, such as the ACF, due to lengthy loan write-off processes, and to lack of legal framework for the

Figure 6: New advances to the agricultural sector remain short term.

Source: Author's computation based on BoU database

operation of Credit Guarantee schemes.

1.1.6: Policy Options

Overall, disbursement of new loans for the agriculture sector in the country has recovered since the opening of the economy following the COVID-19 lockdown in 2020. However, the recovery in new agricultural sector loan disbursements remains below its pre-COVID-19 level. Secondly, commercial banks continue to dominate new advances to the agricultural sector; and although there has been a slight increase in the contribution by MDIs, Credit Institutions, Microdeposit taking Institutions and lower-level financial institutions, their contributions to new agricultural loan disbursements remain meagre. Thirdly, MDIs and Credit Institutions continue to dominate financing of agricultural production by smallholder farmers while commercial lenders have prioritised financing of the processing segments of agricultural value chains. Against these, credit flow towards agricultural leasing has remained persistently meagre compared to other agricultural lending activities.

Given the above, it is proposed that the following policy options be urgently considered:

- i. To further deepen the use of digital channels in the disbursement of credit to the agricultural sector to increase outreach while minimising service costs, Government should work to expand internet connectivity and infrastructure, reduce cost of internet and power, ensure power reliability, and reduce taxes on smartphone gadgets to increase uptake of agricultural credit through new digital channels.
- ii. In order to address barriers that limit advances for agricultural leases, Government should streamline and ease taxation related to leases; and also put in place robust legal and regulatory frameworks for agricultural leases that will enable RFIs to easily issue leases. At the same time, and as a complementary process, commercial banks should earnestly undertake skilling of their staff on

leasing.

- iii. Government should streamline the working of Agricultural Credit Guarantee schemes, by putting in place elaborate legal and regulatory framework for operationalisation of agricultural credit guarantees. These frameworks should clearly spell out terms and conditions for the operation of the schemes that will attract private capital to the agriculture sector.
- iv. Because the majority of agricultural borrowers who are small-holder farmers obtain their credit largely from Tier IV financial institutions, Government should institute quick measures to incorporate lower Tier (Tier IV) financial institutions into the delivery of the Agricultural Credit Facility loans. This will entail working with the Uganda Microfinance Regulatory Authority to link registered microfinance institutions with the Bank of Uganda regulated financial institutions.

References

- BoU, (2020). Annual Supervision Report, December 2020. Issue No. 1. Accessed from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/Supervision/Annual_Supervision_Report/asr/Annual-Supervision-Report-2020.pdf
- BoU, (2021). Annual Supervision Report, December 2021. Issue No. 1. Accessed from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/Supervision/Annual_Supervision_Report/asr/Annual-Supervision-Report-2021.pdf
- BoU, (2022). The Agricultural Credit Facility. Progress Report as at December 2022. Bridging the financial gap for commercialised production. Accessed from <https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/AgriculturalCreditFacility/ACF-REPORTS-2022/ACF-PROGRESS-REPORT-AS-AT-DECEMBER-31-2023.pdf>
- FSDU, (2018). Finscope Uganda. Topline Findings Report. Financial Sector Deepening Uganda. Accessed

from <https://fsduganda.or.ug/wp-content/uploads/2018/10/FinScope-Uganda-Survey-Report-2018.pdf>

UBoS, (2020). Uganda National Household Survey report 2019/2020. Uganda Bureau of Statistics. Kampala, Uganda. Accessed from https://www.ubos.org/wp-content/uploads/publications/09_2021Uganda-National-Survey-Report-2019-2020.pdf

Wangwe R., (2021). Will the lease financial product boost agricultural finance in Uganda? Agricultural finance yearbook 2021. Economic Policy Research Centre. Accessed from <https://eprcug.org/publication/agricultural-finance-yearbook-2021/?wpdmdl=14668&refresh=644a654193cf11682597185>.

- 4 Tier 1 are Financial Institutions regulated by Bank of Uganda whose minimum capital requirement is UGX 25 billion as of 2010.
- 5 https://www.bou.or.ug/bou/rates_statistics/statistics.html
- 6 Internet Banking, Mobile Banking, Mobile Money and Agent Banking
- 7 This is against the 3.9 percent, that obtain credit for business expansion from tier 1 commercial banks.
- 8 Tier 2 are credit institutions whose minimum capital requirement is UGX 1 billion as of 2004.
- 9 Tier 3 are Micro Finance Deposit taking (MDI) institutions whose minimum capital requirement is UGX 500 million

Annex: Table A: Trends in the regulated financial institutions

Year	Commercial Banks (Tier 1)	Credit Institutions (Tier 2) ⁷	MDIs (Tier 3) ⁸	Total RFIs
2007	14	5	4	23
2008	20	5	4	29
2009	21	4	3	28
2010	22	3	3	28
2011	23	3	4	30
2012	24	3	4	31
2013	26	3	3	32
2014	25	4	4	33
2015	25	4	4	33
2016	24	4	5	33
2017	24	4	5	33
2018	24	4	5	33
2019	26	4	6	35
2020	25	5	5	35
2021	26	4	4	34

Endnotes

- 2 The cooperation of the Bank of Uganda and of supervised financial institutions in providing the data on which this and previous articles are based, is greatly appreciated
- 3 https://www.bou.or.ug/bou/rates_statistics/statistics.html

1.2 GUARANTEEING AGRICULTURAL FINANCE IN UGANDA: THE NEED FOR A ROBUST LEGAL AND REGULATORY FRAMEWORK FOR AGRICULTURAL CREDIT GUARANTEES

Enid Kiiza¹



1.2.1: Background

Beginning with the review and re-enactment of banking laws in 1993 and the subsequent far-reaching reforms undertaken, the profitability, capital adequacy and stability of Uganda's regulated financial institutions have largely been stable. The macro-level performance of the financial sector continues to be hailed as an example of success with low levels of non-performing asset; regular review of legal framework to enhance prudential oversight; as well as bringing more of the semi and informal financial sector players (microfinance, Islamic finance) under effective oversight.

Nevertheless, Uganda still lacks a financial sector that is efficient enough to unlock a substantial part of the liquidity of its banking system and to channel it into the country's productive enterprises, particularly in agriculture. Private sector credit growth remains weak and has stayed below 10 percent on year-on-year basis for a protracted period; with credit growth to the private sector constrained by

weak economic activity and increased risk aversion of lenders (BoU, 2022). The elevated risk of the financial sector also continues to be exacerbated by longstanding bottlenecks including poor agricultural practices, limited access to and quality of extension services, low use and quality of improved inputs, insecure land ownership, and high rates of postharvest losses. These challenges are now being further aggravated by the emergence of global pandemics and natural disasters triggered by Climate Change.

Unfortunately, Uganda's financial sector is neither well prepared to cope with or is capable of responding with financial products that can mitigate the negative effects that these shocks have on agricultural productivity. And against the above, a majority of creditworthy entrepreneurs continue to experience financial exclusion in terms of access to financial products. Financing required by agriculture is clearly not flowing into the sector as evidenced by the sector's performance indicators, such as low use of improved inputs, negative total factor productivity growth, slow agricultural output growth,

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underemployment and low and stagnant earnings.

In a bid to reduce the financing constraints faced by the agriculture sector, Government and private players initiated development of Credit Guarantee Schemes (CGSs). A credit guarantee is a promise from a guarantor to make good payments to a lender in case a borrower defaults on a guaranteed debt; with three parties involved: a borrower who lacks collateral, a lender providing the loan or overdraft facility and a guaranteeing agency. A guarantee provides security to enable a borrower obtain a credit facility. For agriculture, it addresses constraints such as lack of collateral sufficient and/or acceptable to formal lenders, especially within the small and medium enterprises (SMEs). This article therefore explores the need for Uganda to have legal and regulatory framework for agricultural credit guarantee and risk-sharing facilities.

1.2.2: Brief About Credit Guarantees

A Credit Guarantee (CG) provides, in return for a fee, third-party credit risk mitigation to lenders by absorbing portions of losses on loans in case of default by borrowers. Under a CG arrangement, the guarantor undertakes to pay a percentage of the amount owed to the lender when a borrower defaults. The CG is an incentive to the lender to finance risky segments of entrepreneurs in sectors that they would ordinarily shun. This enables a large swathe of enterprises that were previously excluded to access credit at lower rates and more suitable tenure and collateral terms; and also an effective public or private intervention in credit markets to improve access to finance for SMEs. CGs also provide a viable countercyclical mechanism to economic shocks arising out of extraordinary events such as the COVID-19 pandemic of 2020.

To ensure effectiveness, a Credit Guarantee scheme (CGS) scheme needs to be designed and implemented in a financially sustainable manner; and the guarantees can be for individual persons/enterprises or cover a whole loan portfolio. In designing a CG scheme, the many parameters to consider include the degree of guarantee coverage; the

targeted beneficiaries and sectors for the guarantees; fees to be charged; and links between the guarantee and other interventions- such as technology, innovation, new skilling etc. The objectives and resources of a guarantor will largely determine how these choices are made; with a guarantee cover varying widely from 50 to 100 percent. Depending on the guarantor, some of the participating lenders may be given delegated authority. This means that the lender can offer a guarantee to a borrower without first seeking the authority of the guarantor.

Credit Guarantee schemes are meant to correct market-failures, but not to distort credit markets. A quick checklist of musts for a CGS include the facts that: (i) a market imperfection exists, i.e. creditworthy borrowers are not being financed; (b) there is proof that without a CG, loans would not be offered; (c) the CG will spur lending to new borrowers or new sectors even after the guarantee is no longer available, which is technically referred to as 'additionality'.

1.2.3: Agricultural Credit Guarantee Schemes in Uganda

The experience of Uganda with credit guarantee application dates back to the 1990s and early 2000s when two schemes, the Export Credit Guarantee Scheme (ECGS) and USAID-funded DCA Guarantee Programme, were instituted. By 2007, however, both CGSs had been closed. The ECGS was a scheme complementary to the Export Refinance Scheme established to offer refinance facilities to commercial banks providing loans and advances to exporters of non-traditional exports (NTE) that was operational from 1991 and was worth UGX 22.8 billion. The ECGF was to offer guarantees to financial institutions that lent to the NTE sector of up to 75 percent plus interest. However, its Fund (ECGF) only became operational in 2001 due to lack of resources.

Out of the five banks accredited to benefit from the ECGF, only two (both foreign owned then) participated. The main bottlenecks were; exclusion of the bigger exporters

of traditional crops (coffee and cotton) who were not eligible under the ERS; the short guarantee cover period of a maximum of 180 days; the volumes and types of documentation required; and the fact that the guarantee cover was in Uganda Shillings (UGX) while most of the ERS loans were United States dollar (USD)-denominated. Over a period of two years (2001-2003), the ECGS guaranteed a total of 78 loans for 16 companies exporting grains, fish, flowers, hides and skins, manufactured foods, pharmaceutical products, beans, and export support services. As of end June 2002, the ECGF (the Capital Reserve Fund) had increased to UGX 3.3 billion, from the UGX 2.2 billion at its inception in April 2001.

For the USAID-funded DCA Guarantee Programme, that was operational between 2002 and 2007, the aim was to improve financing of micro and medium sized enterprises, micro-finance institutions, and some select some Non-Governmental Organisations (NGOs). Loans of up to USD 1 million and durations of up to 5 years could be covered, with the guarantees being either in Ug. Shillings or US Dollars. All banks had delegated authority to offer guarantees of 50 percent of bank loan principal without referring to USAID. While the ECGS had a higher percentage of guarantee coverage per loan and was more targeted, the DCA programme had broader scope and more flexible terms, and it guaranteed 15 loans worth UGX 3.73 billion.

1.2.3.1: Recent Agricultural Credit Guarantee Schemes

Recently, the Government of Uganda initiated a number of financing initiatives to cater for agribusinesses that are unable to access formal credit. The initiatives that were introduced prior to and as part of the COVID-19 Economic Recovery and Resilience Response Program include (i) the BoU-administered Agricultural Credit Facility (ACF) and its credit guarantee window; (ii) various programmes under Uganda Development Bank Ltd. (UDBL)² which, unlike for most commercial banks, are offered at more cost effective lending rates of 10-12 percent per annum and longer term tenures of 1 to 15 years; and (iii) the “*Emyooga*” scheme of the Ministry of Gender, Labour and Social Development

to specifically provide credit for women, youth and enterprise clusters among others.

The popular guarantee schemes in Uganda include the ACF guarantee scheme (ACFCG) which is a Government of Uganda initiative and the Agricultural Guarantee (AG) which is a private sector initiative managed by aBi (Table 1). Both target small and medium enterprises. The ACF credit guarantee (ACFCG) was started to aid the commercialisation of agriculture³. aBi offers the agribusiness guarantee under 3 categories, which are intended to derisk the collateral insufficiency of agribusiness borrowers. The 3 categories include the individual, portable and portfolio guarantees, the latter being the most popular for SMEs and small holder farmers. The maximum cover for individual agribusiness guarantees is USh 1Bn while it is USh 4Bn for portable agribusiness guarantees. For portfolio agribusiness guarantees, amounts vary according the partner financial institution’s lending criteria.

The similarities between the old and current CGSs (i.e., AG and ACFCG) include running two concurrent CGSs that clearly have overlaps in terms of products offered, target clients/sectors, and participating institutions. Both lack Central Bank regulatory recognition in the financial institutions reporting standards as acceptable forms of collateral.

Table 1: Recent Credit Guarantee Schemes in Uganda

Types of schemes	Eligible borrowers	Sector/s	Guarantee coverage percentage	Eligible Financial Institutions (PFIs)	Pricing	Tenor / Duration	Claims process management	Mode of operation
Agribusiness Loan Guarantee	SMEs in Agribusiness	Agribusiness	50% of the outstanding principle amount only	All Tiers in the Financial Sector	1% or less of the Global limit	3 – 5 years, subject to renewal	FI communicates to aBi Finance Limited with all the supporting claim documentation, assessment is done by aBi Finance as per the agreement, if criterion is met, settlement of 50% of the principle outstanding amount is made to the FIs account.	Revolving
Development Credit Authority	SMEs in the supported sectors	Agriculture, Health & renewable energy	50% of the outstanding principle amount only	Regulated FI, with a FI's strategy in alignment with the particular DCA program.	Origination fee, 0.5% - 1% and utilisation fee 0.5% of the outstanding balance on a bi-annual basis	4 – 7 years	FI communicates to USAID, preliminary assessment is done by USAID, USAID sends request to DCA with supporting documentation, DCA reviews & releases money to FI	Un-revolving
Agricultural Credit Facility	All farmers, agro-processors, Grain traders with viable projects and with bank accounts in their respective Financial Institutions	All businesses along the agricultural value chain apart from planting trees, refinancing existing facilities, purchase of land	50%	All FIs operating in Uganda and regulated by Bank of Uganda & Uganda Development Bank (UDB)	12% p.a.	6 months to 8 years; with a grace period of 1 year. Grain working capital is for a maximum of 2 years	Claim verification process by the Auditor General and Parliamentary approval.	

Source: Adopted from Nakazzi (2019) in Agricultural finance yearbook, 2019

Generally, banking laws and statutory instruments are inadequate for CGS operations because basic credit and CGS practices differ considerably. Consolidation of the CGSs and providing enabling legal and regulatory frameworks could enhance the effectiveness of Uganda's credit guarantee efforts.

1.2.4: Why the Need for Legal and Regulatory Frameworks for Credit Guarantees in Uganda

Uganda does not have clear policy and legislation under which Credit Guarantee Schemes (CGSs) can be effectively implemented in the country. Development partners and other guarantors that set up the CGSs have to institute internal policies to manage their respective schemes. While this may work for some, the legal gaps constrain confidence and operations of CGSs, especially in respect to the speedy and fair handling of guarantee claims. The specific gaps include lack of legal and regulatory framework to establish a CGS as an independent legal entity; legal provision for adequate capitalisation and effective CGS supervision; an active platform for CGSs to share information, foster innovation, and lobby for enabling reforms. These need to be urgently and effectively addressed.

Secondly, the ACF guarantee scheme instituted by the Government of Uganda currently operates under the Public Finance Management Act (2015), which framework creates long delays in getting loan write offs that must precede refunds under the guarantee. To write off a loan under the current legal framework, PFIs must inform Bank of Uganda in writing on the status of each loan borrower and the amounts to be offset. Upon receipt of the delinquency report from PFIs, BoU in turn notifies Ministry of Finance Planning and Economic Development (MoFPED) to pursue loan write-off in accordance with laws for writing off Government assets or loans⁴. The process involves, among others, commissioning of the Officer of the Auditor General to conduct an audit to ascertain the delinquencies and present the delinquencies to parliament by MoFPED

to approve the loan write off. The very lengthy process of loan write-off under public finance practice erodes the confidence of lenders in the guarantee cover.

CASA (2021) reported that the institutional process for writing off an ACF loan is cumbersome and ties up PFI's investment capital. Consequently, the failure and delays of Government in settling PFI claims for loan losses have discouraged some PFIs from participating in the scheme (*ibid*). Thus, the ACF (and other credit guarantee programmes operating in the country) require a regulatory framework suited to guarantee-type activities, which differ considerably from convectional lending. As such, this legal gap constrains confidence and operations of CGSs, especially speedy and fair handling of guarantee claims.

1.2.5: Way Forward

As an important way forward, Uganda needs to quickly decide whether a Credit Guarantee scheme is one of the policy instruments it will deploy in addressing its agricultural finance needs. Should it so decide, it must then consolidate its CG initiatives; provide requisite CG enabling legal and regulatory frameworks; take stock of the CG needs of targeted sectors; and identify complementary support mechanisms to enhance use of CGs by both lenders and borrowers. Because CGS are distinctly different from convectional credit provisions, any legal and regulatory framework set up for lending by financial institutions will likely not be adequate for the growth of credit guarantee instruments. The CGS-specific frameworks should therefore address the following:

- i. That whereas there are three (instead of two) parties to the transaction to be; i.e. – the borrower, the lender and guarantor, each of the parties must bear responsibility of ensuring that the credit provided fits into the eligibility criteria, is suitable for the borrower and is repaid. Lenders should then look out for factors that might prevent all parties from fulfilling their roles.
- ii. That CGS-related terminologies, such as

- “guarantee origination fees”, “lock-up period”, “portable guarantees” etc. are adequately defined to ensure that all parties understand them the same way.
- iii. That cognisance is taken of the facts that a guarantee is superior to a physical collateral, i.e. it is easier and quicker to process and to liquidate when default occurs; and that guarantees do not require valuation, verification, safe keeping and maintenance. The lender and bank regulator should recognise this during appraisal and loan loss provisioning and sharing.
 - iv. That treatment of guarantees in the balance sheet conform to and are consistent with agreed standards such as those of the International Accounting Standards Board or the International Accounting Standard 39.
 - v. That borrowers are represented on the relevant CGS committee, as participation of borrowers in CGS organs reduce moral hazards and information asymmetries. And,
 - vi. That there exist specific monitoring formats so that issues of levels of CGS leverage, weaning off, CGS additionality, effects on levels of non-performing assets and CGS sustainability, are properly captured and addressed.

Bibliography

- Bank of Nigeria, (2021).** Guidelines of the Agricultural Credit Guarantee Scheme, Nigeria.
- Bank of Nigeria, (1977).** The Agricultural Credit Guarantee Act, Nigeria.
- Bank of Uganda, (2022).** Financial Sector Stability Report: Financial Stability Symposium
- Bank of Uganda, (2003).** Feasibility Study on the Transition of the Development Finance Department (Draft).
- Bank of Uganda, (2022).** Monetary Policy Report August 2022.
- CASA, (2011).** Study of the framework, status and impacts of the agriculture credit facility on agribusiness in Uganda-*unpublished*.
- Ebidouwei, J., (2016).** Agricultural Credit Guarantee Scheme and Economic Growth in Nigeria.
- FSDU, (2020).** Agile Scenario Analysis: COVID-19 Economic Recovery of Ugandan Adults and Businesses
- IFAD, (2014).** How to do Loan Guarantee Funds October 2014.
- IFC, (2015).** Aligning Kenya’s Financial System with Inclusive Green Investment - Current Practice and Future Potential to Mobilise Investment in a Sustainable Economy.
- IMF, (2022)** Press Release IMF Country Report No. 22/77.
- IMF, (2022).** Uganda Country Report.
- Nakazzi, A., (2019)** Use of Credit Guarantees in financing Ugandan Agriculture. Development Financing for Agro-industrialisation. Agricultural Finance Yearbook, 2019. Access at <https://eprcug.org/publication/agriculture-finance-year-book-2019-development-financing-for-agro-industrialisation/>
- OECD, (2013).** Policy Framework for Investment in Agriculture.
- OECD.,** Facilitating Access to Finance Discussion Paper on Credit Guarantee Schemes
- Reserve Bank of India, (2019).** Report of the Internal Working Group to Review Agricultural Credit.
- Saito Kuniyoshi, Meiji Gakuin University, Tsurata Daisuke,** 2. Information Asymmetry in SME Credit Guarantee Schemes: Evidence. RIETI (Research Institute for Economy Trade and Industry) Discussion Paper Series No.14-E-042 Japan.
- USAID, (2019).** Unlocking Agriculture Finance and Insurance in Uganda: The Financial Sector’s Role in Agricultural Transformation.
- USAID, (2003).** Export Credit Guarantee Scheme Uganda
- USAID, (2004).** Designing Loan Guarantees to spur Growth in Developing Countries
- USAID, (2004).** Risk Management: Pricing, Insurance, Guarantees for Rural Financing: A Guide to USAID’s New Mechanism
- Vasso, L., Pavanini, N. and Yushi, P., (2021).** Collateral and asymmetric information in lending markets Journal of Financial Economics Article No. 144 (2022)

93–121

World Bank, (2015). How to Make Financial Sector Development Strategies Work: Successes and Failures. Note No. 1.

World Bank Group, (2014). Learnt Series How to Make Financial Sector Development Strategies Work: Successes and Failures.

World Bank Group, (2019). How to Address Unique Risks in Agriculture Credit Guarantee Schemes: Lessons Learned from Credit Guarantees for Agriculture.

Endnotes

- 2 SME KAZI loans (Short-term working capital, trade finance, invoice discounting, contract financing for a minimum and maximum of UGX 50 million and UGX 720 million respectively); SMEs Business Expansion Facility (for capital investment for both start-ups and existing); SMEs Asset Financing Facility (acquisition of assets for production processes with collateral pegged to the acquired asset); Crisis Resolution Vehicle for revamping collapsing SMEs and large-scale enterprises and supporting sectors in dire need for credit during a crisis; and Business Accelerator Program for Successful Entrepreneurship (BASE) - training, technical and advisory support to clients
- 3 e.g. Agro-processing machinery, hatcheries, generators, tractors and farm equipment, irrigation and green houses, farm structures (housing and modernisation), storage refrigeration and recycling plants
- 4 Involves among others, commissioning of the Officer of the Auditor General to conduct an audit to ascertain the delinquencies and presenting the delinquencies to parliament by MoPFED to approve loan write off.

1.3 ISLAMIC FINANCE AND SUPPORTING UGANDA'S AGRIBUSINESS SECTOR: PROGRESS, PROSPECTS AND CHALLENGES

Sulaiman Lujja, PhD¹



Picture credit: <https://observer.ug/businessnews/76810-is-islamic-banking-the-next-gold-mine-for-uganda>

1.3.1: Background

The ideology of Islamic finance is as old as Islam. And it came into existence along with the foundation of Islam. Despite its name, Islamic finance is not a religious service. It is rather the provision of financial services in accordance with *Shari'ah* commercial principles, all of which are towards the welfare of Ugandan borrowers and society at large. The establishment of formal Islamic financial institutions, however, occurred around the middle of the 20th century. This was after the independence of Muslim countries from their Western colonisers from whom they had adopted the legal administrative and commercial systems (Sheik, 2009; Abdullahi, 2016; Lijja, 2016 and 2017; Wahida, 2019).

The Islamic finance system was developed to promote cooperation between the lender and borrower, and to abolish interest payment (*Riba*) and excessive uncertainty (*Gharar*), which all together have been partly responsible

for financial crises. The principles upon which the system is based are that: (i) wealth must be generated from legitimate trade and asset-based investments; (ii) investments should generate social and ethical benefits for the wider society beyond pure returns; (iii) risk should be shared; and (iv) all harmful activities should be avoided.

Islamic finance benefits various segments of society and the economy, including (i) financial products consumers; (ii) communities through real movement of assets and economic activities; (iii) the poor who have vibrant business ideas but do not have collaterals; (iv) financial institutions through mobilisation of resources on Profit-and-Loss sharing frameworks; and (v) Government through funding of development programmes without having to incur huge fees and capital costs. In the case of Uganda, by bringing financial inclusion to all segments of the population Islamic finance feeds well into the theme of country's Third National Development Plan (NDP III) of: "Industrialisation for inclusive growth, employment and

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sustainable wealth creation". Furthermore, since Islamic finance is increasingly adopting sustainability parameters, it is well positioned to generate social impacts that address the UN Sustainable Development Goals (SDGs).

Although the focal centre for Islamic finance lies in the Middle East and Southeast Asia, Uganda is well positioned to become the hub for Islamic finance in East Africa. Among the reasons for this are Uganda's membership in the Organisation of Islamic Cooperation (OIC); the presence of the Islamic Development Bank (IsDB) Regional Office² in the country; and flexibility of the country's legal framework that accommodates Islamic finance. This article highlights the significance of Islamic finance in Uganda; the areas it has covered and contributed to; and how it can contribute towards the goals set out in Uganda's Vision 2040. It further explores the Islamic products and opportunities that Islamic finance may offer Uganda's agricultural sector, and challenges to address going forward.

1.3.2: Implementation Structure and Operation of the Islamic Finance in Uganda

The Government of Uganda has been flexible in adapting to global trends by amending existing legal framework to accommodate Islamic finance. While the implementation of Islamic finance in the country has delayed at commercial bank level, in 2017 Government pioneered its implementation through the Microfinance Support Centre (MSC). Being a fully owned Government agency, and unlike private institutions, MSC is not regulated by any Government regulatory agency. This has eased its role of bringing affordable financial and business development services closer to the active and productive poor. MSC also lends at lower rates to other micro-level financial institutions³ that can ably reach poor Ugandans at the grassroots level. These micro-level institutions are the implementing partners of MSC.

Once the implementing partner institutions fulfil MSC requirements, such as registration, operating license,

minimum of one year in operation, and audited accounts including the management letter and cash flow statement, they become eligible to borrow from MSC to facilitate investments in agricultural production, value addition, agricultural marketing, environmental conservation, agribusiness etc. The generally low and below market subsidised rates offered are 8 percent Mark-Up for SACCOs, Cooperatives and Groups; 9 percent for MFIs, and 13 percent for MSMEs.

Like conventional banking, the essence of Islamic banking is financial intermediation, i.e. mobilising and channelling funds from surplus spending units (individuals, companies or governments) to deficit spending units in an economy. Unlike in conventional banking, however, for Islamic finance, profit spread replaces the interest rate mechanism. With these attributes, operations of the Islamic finance are based on three component funds:

- i) Demand deposits/savings. These are funds deposited and withdrawn by customers at any time. These deposits do not attract a contractual return but rather a discretionary gift.
- ii) Time deposits/investment. These are deposits held by the bank for a fixed period and can only be withdrawn at the end of that period. The bank uses these funds in investments, the maturity of which match the period of the fixed deposits.
- iii) Trade financing. This is a corporate/business financing product which allows banks to finance trade transactions on credit or participation in compliance with *Shari'ah* principles.

Under the Islamic banking model, a bank sources funds from depositors in form of Demand Deposits/Savings and Time Deposits/Investment. The bank then uses these funds in only *Shari'ah* compliant modes, such as trade financing, fee-based financing, and investment financing which may be in the agricultural value chains that require risk-sharing modes of finance (Figure 7). Profits generated are shared between the bank and depositors in pre-agreed profit sharing ratios.

Just like conventional banks make profits from “interest spread”, i.e. the difference between interest charged on loans and interest given on deposits, Islamic banks make returns from “profit spread”, i.e. the difference between profit obtained from the creditor/entrepreneur and profit extended to the depositor/investor.

1.3.3: Progress and Performance of the Islamic Banking Products in Uganda

In 2016, the Islamic Development Bank (IsDB) partnered with the MoFPED, Ministry of Local Government (MoLG), and the Microfinance Support Centre (MSC), with the MSC mandated to implement sustainable Islamic microfinance financing in IsDB funded projects. These projects are implemented under Islamic finance principles in districts that are most impoverished, such as Kumi, Katakwi, Alebtong, Nwoya, Adjumani, Buyende, Buikwe, Tororo, Kibuku, Rukungiri, Ntoroko, Bunyangabu, Kabarole, Kyenjonjo, Nakaseke, Gomba and Luweero.

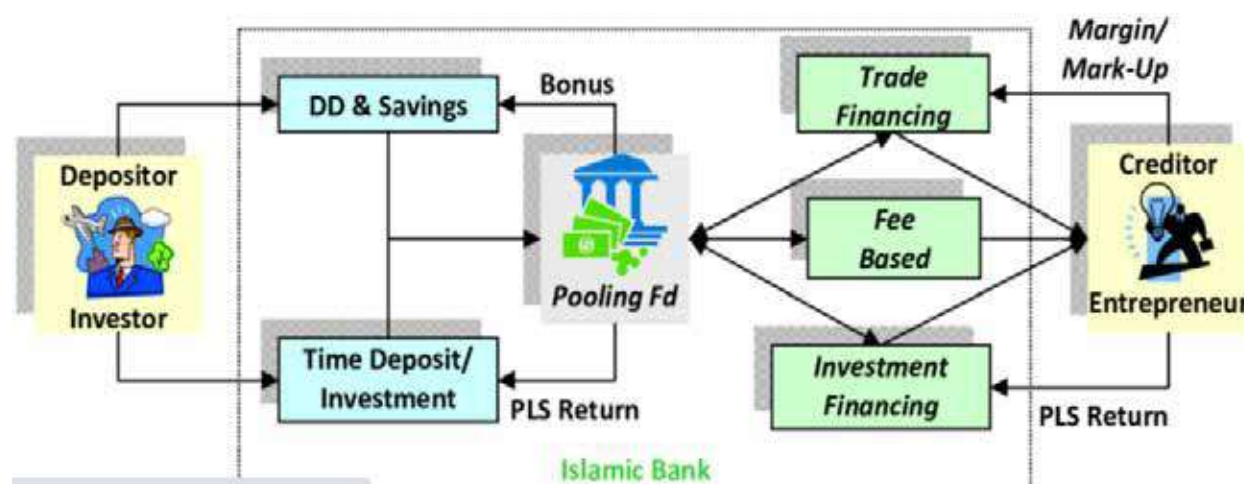
Among the IsDB projects that have been implemented by MSC is the Rural Income and Employment Enhancement Project (RIEEP) worth USD 9.7 million; component B of the

Local Economic Growth Support (LEGS) Project worth USD 10.43 million; and the recently approved Strengthening the Economic Resilience of the Vulnerable Enterprises (SERVE) Project worth USD 10 million.

For sustainability purposes, these projects are operated on revolving credit arrangement where funds are paid back with a minimal *Shari'ah* compliant return on investment to cover operational costs. The projects are implemented over three years and, upon successful completion, IsDB will either renew them or approve other responsive projects upon GoU request. In agribusiness specifically, the projects have improved water use efficiency and productivity through support for affordable low-tech innovations; development of climate-resilient, high-yield plants that have lowered cost of production; and for enhanced commercial farming.

In September 2022, the IsDB's Board approved USD 100 million energy sector public-private partnership (PPP) Project in Uganda, and USD 295m in the sustainable transport sector. The projects are to enhance transport infrastructure, enable access to markets and boost

Figure 7: Structure of Islamic banking operation



Source: Adapted from Ascarya (2009)

tourism. The other IsDB's interventions are aimed at supporting commodity value chain for both food and cash crops to improve productivity and connect local value chains to global ones. To harmonise its Islamic finance practices with international standards, MSC shall adopt AAOFI standards and establish a *Shari'ah* supervisory committee.

1.3.3.1: Performance of Islamic finance under the MSC

As of 31st December 2022, over UGX 84 billion of funds injected to the Microfinance Support Centre (MSC) by the Islamic Finance had been disbursed by MSC to over 316 projects in the country. The funds disbursed to various portfolios were under five (5) financing modes, namely *Musharaka*, *Murabaha*, *Mudaraba*, *Istisna' Financing* and *Ijara Financing* (Figure 8). These financing modes as utilised by the MSC in financing various activities are described below.

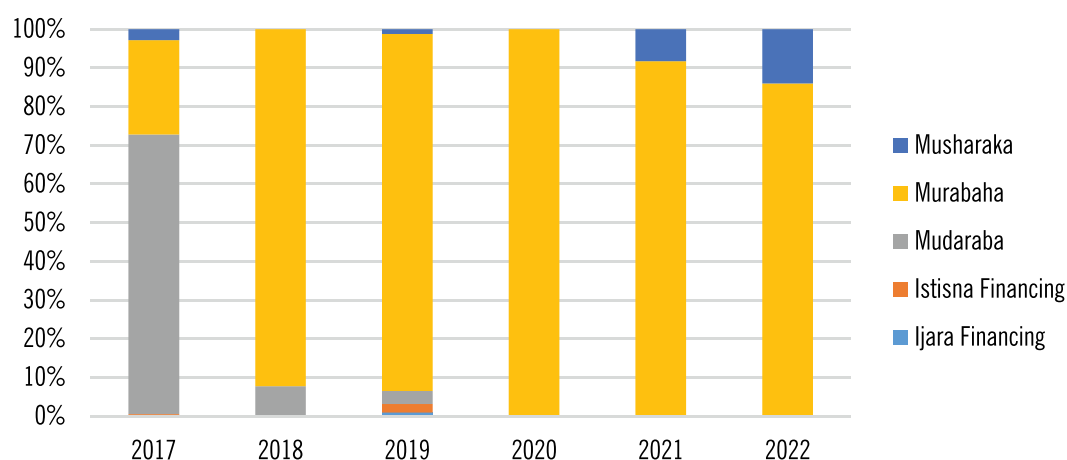
i) ***Musharaka* (Profit-and-Loss Sharing partnership) financing.** This is where MSC partners with a client to both contribute in the investment capital, and both partners share in the profits and losses of the business. Under arrangement, about 3 percent of MSC's Islamic finance portfolio has been disbursed to eight implementing partners who are engaged in various economic activities.

ii) ***Murabaha* (Cost-Plus Mark Up Sale) financing.** Under this financing, the MSC finances clients who need physical assets or items that MSC can buy directly from vendors and sell to them at a Mark-Up. Approximately 74 percent of MSC's Islamic finance portfolio has been disbursed under the *Murabaha* arrangement to 256 institutions who are engaged in different economic activities.

iii) ***Mudaraba* (Profit Sharing partnership) financing.** Under this financing arrangement, the MSC contributes investment capital into a partnership with the client who provides management skills to operate a *Mudaraba* business. While MSC and the client share business profits in a pre-agreed profit-sharing ratio, losses are entirely suffered by MSC and the client loses only fruitless efforts. Under the *Mudaraba* arrangement, about 23 percent of MSC's Islamic finance portfolio has been disbursed to 52 implementing partners who are engaged in various economic activities.

iv) ***Istisna' (Manufacturing sale) financing.*** Under this financing scheme, MSC sells or buys from a customer a non-existent asset that is to be constructed, built or manufactured according to the ultimate purchaser's specifications. Upon completion of this contract, MSC engages the subcontractor to construct or manufacture the

Figure 8: MSC Islamic finance portfolio according to the different financing modes



Source: Author's construction based on Microfinance Support Centre 2022 Report

asset based on specifications prescribed in the first *Istisna'* contract. Under this arrangement only, 0.7 percent of MSC Islamic finance portfolio has been disbursed to eight implementing partners who needed to engage in construction.

- v) ***Ijara* (Lease) financing.** Under this lease financing, MSC (as a lessor) buys an asset and then leases it to a customer (lessee) for a specified rental over a specific period; with the duration of the lease as well as the basis for rental set and agreed to in advance. At the end of the rental period, a customer may own the asset by either sale at nominal price or gift. MSC has provided this finance portfolio to only one client (SME), with the value approximating only 0.2 percent of the Islamic finance portfolio. The customer funded under this contract is in dairy farming.

In terms of portfolio distribution based on modes of financing (Figure 8), *Murabaha* financing mode has so far taken up most of the MSC's Islamic financing at 80 percent; while *Ijara* Financing mode covers the lowest value of the portfolio at 0.1 percent. Of the *Murabaha* financing, over 90 percent of the projects were in agriculture and related sectors, including value chains in the key sectors of maize, rice, soya bean, cattle fattening, dairy sector especially milk production and processing, sunflower for vegetable oil production, coffee production and marketing, poultry and selling of agricultural inputs.

It is also important to note that the equity-based⁴ financing modes hold the greatest risks, as evidenced by the high percentage of the portfolios in arrears, when the debt-based⁵ financing modes have been relatively low risk financing modes.

1.3.4: Appropriateness of Policy, Legal, Regulatory and Institutional Frameworks for Islamic Banking in Uganda

To improve the effectiveness of Islamic financing, establish and broaden its use by banks and other finance entities

and assure sustainability, Uganda needs to critically review its finance policy, legal, regulatory and institutional frameworks, some of which are highlighted below.

1.3.4.1: Policy, Legal and Regulatory Frameworks

The Constitution of the Republic of Uganda (1995) does not spell out any provision relating to Islamic Banking. This is because the Constitution cannot provide for all laws in the country since it is only meant to serve as an enabling law. Nevertheless, the overall banking system, under which Islamic banking falls, is provided for under Chapter 9, Article 161 of the Constitution that established the Bank of Uganda (BoU) as the country's Central Bank. In this spirit, Article 162(3) of the Constitution particularly mandates the country's Parliament to make laws regulating the functions of the BoU; which functions, among other things, include the regulation of the banking sector to which Islamic banking belongs.

It is from this background that the Government has been flexible and has effected relevant amendment of relevant laws to accommodate Islamic finance under the existing legal framework. The laws as amended include: (i) the Financial Institution (Amendment) Act 2016; (ii) the Financial Institutions (Islamic Banking) Regulations 2018; (iii) the Tier 4 Microfinance Institutions and Money Lenders Act 2016; and (iv) the Insurance Act 2017. Compared to other countries in the East African Region, such as Kenya, the existing legal framework in Uganda is adequate to operationalise Islamic finance in the country.

While implementation of Islamic finance has delayed in commercial banks due to incomplete tax amendment laws that disfavoured Islamic financial products due to double taxation, the Microfinance Support Centre (MSC) pioneered implementation of Islamic finance in 2017. This has improved livelihood of farmers through support of priority investments, especially in rural infrastructure, crop and livelihood production and productivity improvements, and access to inclusive economic empowerment. This success is because Islamic financial products promote

real economic activities thus facilitating the majority of Ugandans who earn their livelihoods through farming.

In June 2022, the Uganda Cabinet approved the proposal to amend the Microfinance Deposit Taking Institutions Act 2003 to pave way for the industry to introduce Islamic banking to Microfinance deposit taking institutions. Similarly, Cabinet approved the principles for amending the Tax laws and the principles for repealing Section 115B (2) and any other provisions relating to a Central *Shari'ah* Advisory Council. To operationalise Islamic banking at commercial bank level, the MoFPED shall soon table the Tax Amendment Bills and the Financial Institutions Amendment Bills to Parliament for enactment and assent of the President.

1.3.4.2. Institutional frameworks

Through the Investment Promotion Technical Assistance Programme (ITAP), IsDB explores investments into Uganda from Arab countries. In this regard, openness of the Government of Uganda to Islamic finance has helped the country become familiarised with the terms of Islamic financing and Islamic finance products. This in turn has helped the country attract more funding opportunities.

Since it joined the IsDB Group Member States on 28th March 1977, Uganda has benefited from the IsDB Group's products and services through impactful programmes in transport, social services and industry. To date, the regional hub of Uganda has benefited from IsDB support, with total funding of USD 4.0 billion, 294 completed programmes and 118 active programmes. In terms of human capital development, the Islamic University in Uganda (IUIU) pioneered the teaching of Islamic Finance programmes in 2015 after it had run its graduate and Postgraduate *Shari'ah* programmes for years. The courses being taught include: Bachelor of Islamic Banking and Finance; Postgraduate Diploma in Islamic Banking and Finance; Masters in Islamic Banking and Finance; and PhD in Islamic Banking and Finance. This initiative has helped to prepare a pool of competent human resources that will support Uganda's Islamic finance sector.

In terms of adoption of international standards, Diwan Agency, a local Islamic finance and *Shari'ah* compliance firm, was appointed by several international Islamic finance institutions, including Accounting and Auditing Organisation for Islamic Financial Institutions (AAOIFI), Islamic Banking and Finance Institution Malaysia (IBFIM), International *Shari'ah* Research Academy (ISRA), as their representative organisation to promote their professional certifications in Uganda. The certifications offered include Certified Islamic Professional Accountant (CIPA), Certified *Shari'ah* Advisor and Auditor (CSAA), and Certified Qualification in Islamic Finance (CQIF). This will help in professionalisation and standardisation of Islamic finance and *Shari'ah* practices in Uganda. Beyond these, Uganda will continue to draw practical experiences from countries such as Kenya, Malaysia etc. with strong banking sectors and Islamic finance practices.

1.3.5: Progress of Islamic Banking in Kenya: Some Lessons for Uganda

In Kenya, Islamic finance was established in 2016 when Barclays Bank launched its Islamic Window with *La-riba* (interest free) account. In 2017, Kenya Commercial Bank (KCB) also launched an Islamic Window; and was followed by first Community Bank and Gulf African Bank (GAB) that launched fully fledged Islamic banking services. However, Islamic banking represents only 2 percent of Kenya's total banking assets.

Despite the small percentage of Islamic banking assets of the country, with its minority 11 percent Muslim population Kenya has been home to Islamic bank and *Takaful* (Islamic insurance) operators for over a decade now. In being so, it has positioned itself as a Regional hub for Islamic finance in East Africa. Kenya further hopes to develop its domestic Islamic finance sector by including an industry framework, and a sovereign *Sukuk* (Islamic bond) issuance among other Islamic finance products.

As Kenya works towards its Vision 2030 for sustainable real economy, among the several initiatives put in place is

an ambition of becoming the Islamic finance hub in East Africa. It is against this background that the Kenyan Capital Markets Authority (CMA) has championed the proposal to establish a National *Shari'ah* Advisory Council that should develop a *Shari'ah* compliance framework benchmarked on international standards. A key benefit that Islamic finance has yielded in Kenya is the inclusion of the large indigenous and immigrant Muslim populations in the country's development processes. This has boosted the mainstream retail, commercial and corporate segments of the banking sector.

Besides the banking sector, which include full-fledged Islamic commercial banks and Islamic banking windows in conventional banks, Kenya has developed Islamic oriented investments through financial cooperatives. These include Islamic co-operative societies, such as Muslim Savings and Credit Cooperative Societies (SACCOs). Besides, SACCOs, the Central Bank of Kenya and other financial regulatory bodies are currently working towards harmonising and standardising the Islamic financial system. All these have enabled Kenya to enhance the livelihoods of its people.

Against the progress Kenya has made in developing its Islamic banking and finance, Uganda now needs to emulate their success stories by embedding Islamic finance into the country's agenda for sustainable development. Just like other governments worldwide, the Government of Uganda needs to provide prudential supervision and develop the Islamic financial services sector. This will promote inclusion of the Muslim investors (locally and internationally) into Uganda's development processes.

1.3.6: Challenges in Implementing Islamic Finance in Uganda

Following five years of implementation of Islamic finance by the Microfinance Support Centre (MSC), various challenges have been identified and several lessons have been learnt that should help Uganda deliver improved Islamic financial services. Of particular importance are the following:

- (i) **Transparency.** The ideal Islamic financial products that fulfil the objectives of *Shari'ah* (the Profit-and-Loss-Sharing products) mainly depends on trust. Majority of existing clients do not disclose correct information about their businesses, and are keen to report losses which renders the portfolio non-performing. It is because of this background that MSC has reduced on the equity-based⁶ Islamic products and increased the debt-based⁷ Islamic products to mitigate credit risks caused by lack of transparency.
- (ii) **Misconception about Islamic finance.** Since Islamic finance is based on Islamic principles (*Shari'ah*), many people wrongly think that access is limited to Muslims only, and that the initiative is meant to create a parallel *Shari'ah* framework to compete with existing legal frameworks. Additionally, the few people who have accessed Islamic finance think that the funds are free. Against this background, MSC has intensified its programme to create awareness among the population that Islamic finance shares the economic objective of conventional finance, i.e. financial intermediation but in a manner that complies with *Shari'ah* commercial principles which are purely business oriented and not religious.
- (iii) **Diversion of borrowed funds.** Due to the misconceptions about Islamic finance, clients divert funds from the initially appraised business plans to other poorly conceived projects or consumptive non-investment needs. This usually leads to default and financial distress, reason why MSC has emphasized the primary objective of Islamic finance of creating income sources for the ultra-poor.
- (iv) **Dispute resolution mechanisms.** Currently, there is limited knowledge of Islamic finance among different sectors including the judiciary. This renders Islamic financial products dispute-ridden, due to non-standardised interpretation of *Shari'ah* doctrines applicable in Islamic financial

sector. MSC is similarly faced with the challenge of interpretation of these doctrines when resolving Islamic finance disputes. Typically, sophisticated Islamic doctrines require *Ijtihad*, i.e. use of reasoning to arrive at rulings that are not explicitly provided for in Quran and Sunnah (the primary sources of *Shari'ah*). MSC is therefore establishing its *Shari'ah* Supervisory Committee which shall be a reference authority for financial matters that require *Shari'ah* interpretation.

- (v) **Delayed uptake by commercial banks due to taxes.** Since 2016 when the Financial Institutions Act was amended to accommodate Islamic Banking, no commercial bank has been licensed by Bank of Uganda to conduct Islamic banking business because of parity gaps that disfavour Islamic financial transactions over conventional financial transactions.
- (vi) To create level playing fields, MoFPED tabled in 2021 proposals for tax reforms necessary to foster implementation of Islamic banking in Uganda. In 2022, Cabinet approved the principles to amend tax laws to provide for equal tax treatment between Islamic and conventional financial products. Accordingly, the MoFPED drafted relevant amendments to the tax laws (i.e. the Income Tax Act, the Excise Duty Act, the Stamp Duty Act, the Value Added Tax Act, and the Tax Procedure Code Act). Upon assent by the President, the amended Acts shall facilitate licensing of Islamic banking business at commercial bank level. The uptake of Islamic Banking by commercial banks will create competition and thus foster Islamic financial sector development.

1.3.7: Policy Options to Consider

Islamic finance has complemented the efforts the Government of Uganda in the fight against poverty by bringing financial services closer to low income productive Ugandans. It has also offered enormous opportunities to MSC customers to invest in agricultural production,

value addition, agricultural marketing and environmental conservation, among other agribusinesses. Islamic financial products therefore suit the needs of smallholder farmers who are short of cash and collateral, are in need of long-term financial resources, and require risk-sharing and risk mitigation support as they develop their businesses and build their finance and management capabilities.

Due to non-regulated and non-standardised interpretation of *Shari'ah* doctrines at policy levels, the Islamic financial sector is exposed to dispute which may affect business due to misinterpretation of *Shari'ah* doctrines. There is therefore need for a centralised authority that acts as a reference to Government and industry, particularly in dispute resolutions or courts and arbitration.

Due to the high default rates that have been caused by the misconception that Islamic banking is free money because of being interest-free, financial institutions that conduct Islamic financial business need to significantly limit their offering of equity-based products and instead leverage on debt-based products at this initial stage of implementation. This will control customer moral hazards and safeguard shareholder's funds. As the market adapts trust, financial institutions shall gradually increase their offering of equity-based products, which are the ideal Islamic or *Shari'ah*-based financing avenues.

References

- Abdullahi, M. H. (2016). *The Legal and Regulatory Framework of Islamic Banking in Kenya: Theory and Practice*. A Thesis submitted in partial fulfilment of the requirement of the requirement for the award of the Degree of Master of Laws. Nairobi: University of Nairobi.
- CPA, (2022). *Financial Reporting Guidance for Islamic Banking Institutions*. Guide, Kampala: Institute of Certified Public Accountants of Uganda.
- Kasmani, M. R., (2013). *Factors Influencing the Growth of Islamic Banks in Kenya*. A Project Report Submitted

- to the Chandaria School of Business in Partial Fulfilment of the Requirement for the Degree of Masters of Business Administration (MBA). United States International University.
- Lujja, S., (2016). "The feasibility of adopting Islamic Banking system under the existing laws in Uganda." *International Journal of Islamic and Middle Eastern Finance and Management*. 9 (3): 417 – 434. doi:http://dx.doi.org/10.1108/IMEFM-0.
- Lujja, S., (2017). *The Regulatory Feasibility and Public Intention to Adopt Islamic Banking in Uganda: Lessons from the Malaysian Experience*. Kuala Lumpur. A Thesis Submitted in Fulfilment of the Requirement for the Degree of Doctor of Philosophy in Islamic Banking and Finance.
- Lujja, S., (2018). "Islamic banking: an exploratory study of public perception in Uganda." *Journal of Islamic Accounting and Business Research*. (Emerald Publishing Limited) 9 (3): 336-352. doi:10.1108/JIABR-01-2015-0001.
- MSC, (2022). Microfinance Support Centre Positions itself as Islamic Finance hub in Uganda. Accessed 12 5, 2022. <https://www.msc.co.ug/products-services/finance-products/islamic-finance/>.
- Sheikh, S. A., (2009). *Factors That Led to the Emergence of Islamic Banking in Kenya and the Regulatory Challenges Facing the Industry*. A Management Research Project Report Submitted in Partial Fulfilment of the Requirements for the Degree of Masters of Business Administration (MBA). Nairobi: School of Business, University of Nairobi.
- Wahida, M., (2015). *Islamic Banking and Economic Infrastructure Development - Kenya's Prospects. Working Paper Series*. Nairobi: Kenya Banking Association, Centre for Research on Financial Markets and Policy®.
- climate-related disruption in its 27 African member countries.
- 3 These institutions include; Microfinance institutions (MFIs), Cooperatives Societies/Unions, Savings and Credit Cooperative Organisations (SACCOs), Village Savings and Loan Association/Groups, and Micro Small and Medium Enterprises (MSME) among other economic enterprises
 - 4 The equity-based Islamic products are financial products that create partnership (either in capital or efforts) between contracting parties. Shari'ah promotes equity financing modes of Mudaraba and Musharaka.
 - 5 The debt-based Islamic products are financial products that create an obligation on customer the same way conventional loans do, in order to mitigate potential moral hazards and to safeguard the financier's funds. These products include Murabaha, Commodity Murabaha, and Ijara Financing.
 - 6 See footnote 7 above
 - 7 See footnote 8 above

Endnotes

- 2 IsDB is a multilateral Development Bank (MDB) owned by the 57-member Saudi-based OIC. It is the second largest MDB after the World Bank in terms of capital and it is unique in that its operations are fully compliant with Islamic financial principles. IsDB is targeting food security and agriculture, and

1.4 EXTENDING FINANCE TO UGANDA'S SMALLHOLDER FARMERS: A CASE OF THE BLOCK ALLOCATION LOAN PRODUCT

Winfred Muliisa¹



1.4.1: Background

In Uganda, agriculture is a key sector of the economy and the pillar of rural livelihood. However, outputs, productivity and progress are constrained by various factors that include access to finance, among others. In the past, banks perceived the agricultural sector as high-risk and did not easily offer credit to borrowers involved in agricultural value chains. To address this funding gap and to increase credit access players in the sector, the Government of Uganda (GoU) in 2007 established the Agricultural Credit Facility (ACF) to support mechanisation to increase the sector's productivity; enhance investments in value addition; and to generally improve farm outputs and incomes of farmers. The ACF operates as a risk sharing facility with GoU and Participating Financial Institutions (PFIs) both contributing to the Fund.

Over the last 13 years of its operation, the ACF has achieved significant progress. As such, cumulative loan

book has grown by UGX 690.51 billion, from UGX 21.02 billion in 2010 to UGX 711.53 billion as of September 30, 2022. The ACF loans have also been extended to 2,670 eligible projects across the country and to various agriculture value chains. The value chain activities funded include agro-processing (19%); infrastructure for post-harvest handling (13%); financing for grain trade (37%); as well as financing of on-farm activities (31%) such as acquisition of tractors and farm machinery, farm expansion through fencing, restocking and construction of farm structures such stores, feedlots, milking sheds, valley dams etc.

Since 2009, the ACF scheme, has been revised and implemented in five phases, with a view of increasing its scope to finance Uganda's agricultural sector. The phases were mainly defined by changes in the eligibility criteria and lending conditions and processes. During Phase IV, from July 2011 to February 2013), reforms were introduced to enable access of the ACF funds by small-scale borrowers, and to also bring on board the lower Tier Microdeposit

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Taking Institutions (MDIs) as participants. In this Phase IV, block allocation was introduced to provide for small borrowers requiring small loans, and up to UGX 1.5 billion was earmarked for each PFI to enable them on-lend to small-scale agribusinesses without first submitting the individual applications to Bank of Uganda (BoU).

In spite of improvements, the introduction of the ACF block allocation did not generate the expected progress (BoU, 2021 and Bamwine, 2019). This was attributed to various factors, including high risk aversion by Tier 1 PFIs regarding lending to smallholder agricultural enterprises; high lender transactional cost; low and unprofitable credit volumes involved²; lack of acceptable collateral and financial records to back loan requests; as well as low awareness of the product. Considering the above, this article reviews progress the ACF block allocation loan product scheme has made thus far, and the existing challenges in its implementation.

1.4.2: Accessing Finance under the Block Allocation Loan Product

The ACF Block Allocation arrangement was introduced following review of the 2018 ACF Memorandum of Understanding (MoU) after concerns of, and consultations, with the PFIs that collateral requirements as precondition for the smallholder farmers to borrow under the ACF essentially blocked access to finance by these resource poor farmers. The innovation arrived at was therefore intended to unlock access to credit in areas with communal land tenure, and most especially for micro and smallholder farmers who were otherwise excluded from borrowing for lack of collateral, mainly land titles to secure their loans.

1.4.2.1: ACF Loan terms under the Block Allocation Product

Under the new Block Allocation arrangement, BoU agreed to earmark UGX 1.5 billion for each PFI from which they would approve loans to eligible borrowers not exceeding UGX 20 million based on alternative collaterals such

as chattel mortgages, cashflow-based financing and character-based loans. Capping of the loan amount at UGX 20 million was to minimise the default risks of the PFIs since the loans are largely unsecured. In turn, PFIs are allowed to appraise eligible borrowers and disburse loans to them before submitting the loan and refinance applications to BoU for reimbursement of the Government of Uganda (GoU) contribution.

By this approach, there was limited paperwork involved for the micro borrowers who have no financial records and seeking largely unsecured loans, and also no delays occasioned by lengthy appraisal processes including collateral perfection. Delays in loan processing and approval were also being addressed so that farmers could access financing in time to meet their agricultural seasons.

This Block Allocation product targeted micro and smallholder farmers engaged in primary production whose working capital requirements include agricultural inputs, such as fertilisers, pesticides, seedlings, farm restocking to increase output, as well as working capital for grain trade. The loan terms under remained the same as those applied under the ACF, with the interest rates maintained at 12 percent for production and 15 percent for grain trading while the maximum loan period is 8 years including a maximum 3-years grace period.

In terms of participation of PFIs in delivering the block allocation product, only five out of 33 PFIs are currently participating. These are: Post Bank (U) Ltd., DFCU Bank Ltd., Centenary Bank Ltd., Equity Bank (U) Ltd. And Pride Microfinance Ltd. The low uptake of this product by PFIs stems from the fact that most PFIs still consider this category of agricultural borrowers who are small scale farmers as risky due to lack of financial records and the high transaction costs involved in dealing with them among others.

1.4.3: Performance of the Block Allocation Product

Since the revision of the Block Allocation loan framework, there has been considerable progress in provision of ACF loans in support of agricultural value chain activities (Figure 9 and Annex Table B). By 30 September 2022, the Government of Uganda (GoU) had capitalised the ACF with UGX 239.4 billion for on-lending to farmers and agro-processors. This capitalisation together with the reflows (repayments from PFIs) of UGX 240.8 billion have supported cumulative ACF lending of up to UGX 360.8 billion as GoU contribution. To this was added the contribution by PFIs of UGX 350.8 billion, which brought total lending under the ACF to UGX 711.5 billion as at 30 September 2022.

This Block Allocation innovation has now been operational for four years since its introduction in November 2018; and there has been significant progress in performance,

with disbursements having increased by UGX 4.8 billion over the four years- from UGX 534.5 million in 2019 to UGX 5.3 billion by 30 September 2022. The increase in disbursements is attributed to increased publicity campaigns by BoU with focus put on Block Allocation as a tool for financial inclusion by the smallholder farmers.

1.4.3.1: Utilisation of the Block Allocation Product by Region and Gender

Cumulatively UGX 10.4 billion has been extended to 1,527 rural farmers under the Block Allocation arrangement with 42 per cent of the total number of beneficiaries coming from Northern Uganda (Table 2). In terms of regional uptake, the western region has obtained the largest financing under the Block Allocation with most funding going towards cattle restocking and grain trading. The beneficiaries in this region are cattle keepers serving the cattle corridor and therefore have utilised the maximum loan limit of UGX 20 million for restocking.

Figure 9: Uptake in value of loans disbursed



Source: Authors' construct based on BoU ACF-database

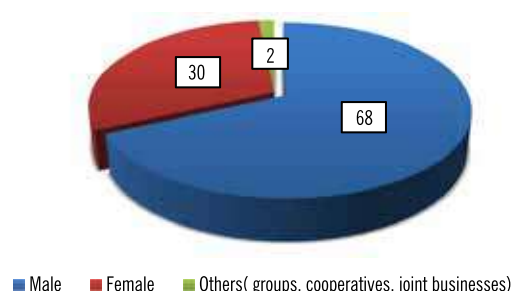
Table 2: Uptake of Block Allocation funding by region as at 30 September 2022

Region	No. of beneficiaries	Number of beneficiaries per region (%)	Total Loan Amount (UGX)-PFI & GoU	GOU Contribution (UGX)	Amount disbursed per region (%)
Eastern	29	1.9	483,500,000	287,450,000	5
Northern	648	42.4	615,212,000	331,606,000	6
Central	234	15.3	2,110,191,587	1,206,195,794	20
Western	616	40.3	7,223,200,000	3,945,300,000	69
Total	1,527	100	10,432,103,587	5,770,551,794	100

Source: Author's construct based on BoU-ACF database

On the other hand, despite the North registering the highest number of beneficiaries under the Block Allocation arrangement, the value of loans to the region remains low with only UGX 615.2 million disbursed as at September 30, 2022. This is because the beneficiaries are micro-borrowers with loan amounts ranging from UGX 100,000 to UGX 500,000 to finance agro-inputs like pesticides and fertilisers. There is a need to further conduct awareness campaigns in the Northern and Eastern regions of the country to sensitise the public on the availability of the Block Allocation arrangement in accessing credit under the ACF.

This Block Allocation product has not only demonstrated that it has the potential to unlock access to credit by smallholder farmers but revealed its ability to reduce gender disparity in access to agricultural finance. This is evidenced by the fact that up to 30 per cent of the beneficiaries under Block Allocation, were females with a

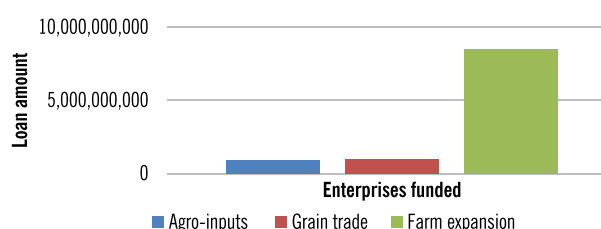
Figure 10: Gender utilisation of ACF under the Block Allocation arrangement, September 30, 2022 (percent)

Source: Author's construct based on BoU-ACF database

total of UGX 1.39 billion extended to them as of September 30, 2022.

1.4 3.2: Block Allocation Financing for Agriculture

Review of ACF Block Allocation loan disbursements for agriculture and farming show that farm expansion has received the highest amount of loans (Figure 11), with the UGX 8.5 billion extended to this activity constituting 82 percent of the total funds on-lent under the Block Allocation; while lending for agro-inputs and grain trade totaled UGX 912.9 million and UGX 1.03 billion, respectively.

Figure 11: Allocation of block allocation loan among agricultural enterprises, 2022

Source: Author's construct based on BoU-ACF database

The large share of the block allocation loans for farm expansion largely entails investing in primary production which constitutes most of the investments by smallholder farmers, and also explains why production attracts the highest demand for loans. Of the total value of loans disbursed, grain trade and agro-inputs took up 10 and

9 percent shares, respectively. Although agro-inputs absorbed the least amount of funding, this activity served the highest proportion of beneficiaries (59%) under the Block Allocation arrangement. This is because for every cropping season rural farmers require micro loans for the purchase of critical agricultural inputs, such as fertilisers, seedlings and pesticides required for every crop planting.

1.4.4: Challenges in the Operation of the Block Allocation Product

In reviewing the ACF Block Allocation funding, it is clear that, of the targets micro borrowers, most have very limited financial literacy. For example, virtually all of these do not systematically keep record of their operations on the basis of which PFIs can assess their loan use potentials. In addition, most of them have no accounts with the PFIs, even when they are saving with their village Savings and Credit Cooperative Organisations (SACCOs) or their Village Savings and Loan Associations (VSLAs) all of which are outside the formal financial systems regulated by the Central Bank. This inhibits the micro borrowers from accessing financing under the ACF.

It is also clear that PFIs still consider the micro-level borrowers as of very risk, and so are still averse to lending to them especially when they possess no valuable collaterals to offer as security. Furthermore, most of the beneficiary smallholder farmers targeted under the ACF Block Allocation scheme live and farm in very remote rural areas far way from PFI branch networks. This is a major constraint on farmer access of PFIs, and equality the access of the farms and investments by the financial institutions.

1.4.5: Policy Options and Way Forward

Over the years, the Microfinance Support Centre has demonstrated that ACF Block Allocation has the potential to enhance financial inclusion and reduce financial related gender disparities, given its demonstrated facilitation of access to finance for women and youths engaged in agriculture. There is however urgent need to scale up their

access to financial products, especially through increased awareness campaigns for the farmers and PFIs. To achieve further reduction in gender disparities in access to credit finance, the potential for ACF target-financing, where portions of funds could be earmarked for specific groups, such as women and youths, and with more flexible terms, in particular lower interest rates and sufficient grace periods need to be critically explored.

As mentioned earlier, most of the target beneficiaries under the ACF block allocation funding belong to SACCOs, which are not part of the PFI implementation modality. There is need therefore to review the eligibility criteria of the ACF to incorporate Tier-4 institutions, including licensed SACCOs, in the ACF initiative. And lastly, to increase ACF loan uptake by smallholder farmers, MSC and PFIs need must consider instituting urgent financial literacy training programmes for smallholder farmers, particularly on aspects of record-keeping and opening saving bank accounts to make farmers bankable and attractive to credit institutions. This capacity building will truly unlock Uganda's potential for agricultural development, rural and economic transformation and modernization.

References

- BoU, (2021). ACF Progress Report as at 30 December 2021. Bank of Uganda. Kampala, Uganda. Accessed at <https://www.bou.or.ug/bou/bouwebsite/ACF/>
- Bamwine, R., (2019). Ten Years of the Agricultural Credit Loan facility. *Agricultural Finance Yearbook 2019*. Economic Policy Research Centre, Kampala, Uganda. Accessed at <https://eprcug.org/publication/agriculture-finance-year-book-2019-development-financing-for-agro-industrialisation/>

Endnotes

- 2 Most PFIs did not consider it feasible to lend below UGX 10 million under the ACF scheme

Annex

Table B: Disbursements under the Block Allocation (2018-2022)

Period	Sep-19	Sep-20	Sep-21	Sep-22
Value of Loan application	759,500,000	2,501,000,000	2,829,012,000	5,137,681,587
GoU contribution equiv.	495,650,000	1,441,800,000	1,654,706,000	2,585,840,794
Total amount disbursed	534,500,000	2,283,500,000	2,312,400,000	5,301,703,587
GoU contribution equiv.	354,150,000	1,280,150,000	1,362,700,000	2,773,551,794
Recoveries	-	526,256,669	556,473,332	1,314,824,293
% of recovery against GoU contribution disbursed	0	41%	41%	47%

Source: BoU ACF-database

1.5 AGRICULTURAL CREDIT FACILITY: A REVIEW OF PAST REFORMS AND PROGRESS DURING THE THIRTEEN YEARS OF IMPLEMENTATION.

Sserunjogi Brian¹



1.5.1: Background

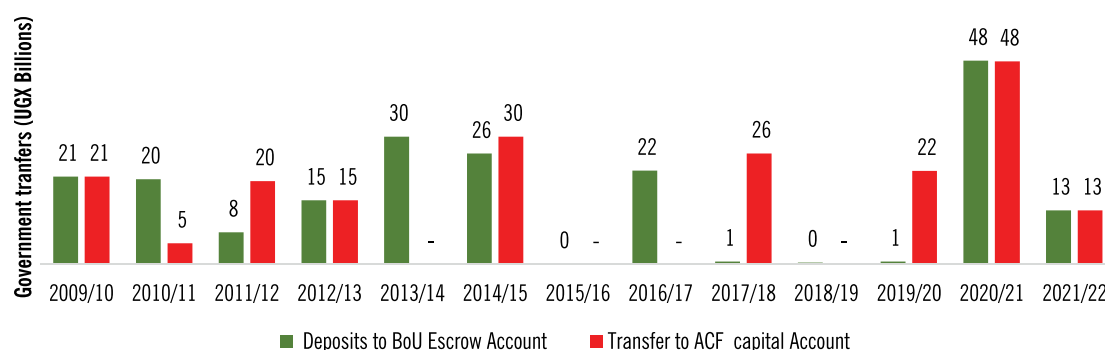
Since its inception in 2009, the Agricultural Credit Facility (ACF) that is managed by the Bank of Uganda (BoU) has extended credit to the agricultural sector through a public-private partnership arrangement. Specifically, the Government of Uganda (GoU) partnered with Participating Financial Institutions (PFIs), i.e. Commercial Bank, Microfinance Deposit-Taking Institutions (MDIs), Credit Institutions (CIs) and Uganda Development Bank Limited (UDBL), to deliver the ACF to target users.

Initially, Government established the scheme to provide medium and long-term financing for agriculture and agro-processing (GoU, 2009), with funds channeled to end users through the PFIs. Later, to streamline and provide binding framework for implementation, a Memorandum of Agreement (MoA), was set between the Bank of Uganda and PFIs (MoA, 2018), with capitalisation of the ACF scheme being the responsibility of Government of Uganda (GoU), while the PFIs are to contribute 50 percent and the MDIs 30 percent of the capital value of loans for borrowing.

Since its inception the ACF has been operational, albeit with challenges. During implementation, the facility underwent various adjustments to address the issues of financing, participation by PFIs, eligibility of borrowers, and areas of focus (see Annex Table C). However, outstanding challenges remain that continue to constrain its effective operation.

In this article, therefore, review is made of progress made in implementing the ACF during the past 13 years (2009-2022); and challenges the scheme still faces in respect to ACF capitalisation, funding and disbursement; allocation and monitoring of funds; financing arrangements, instruments and design; legal and institutional frameworks; and emerging policy options. Out of these, proposals are made of targeted measures that can be implemented by both Government and the private sector, in the short to medium term, in order to strengthen the scheme and further boost agricultural production and productivity growth in the country.

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Figure 12: Government remittances to the BoU Escrow and ACF capital Accounts (2009/10 -2021/22)³


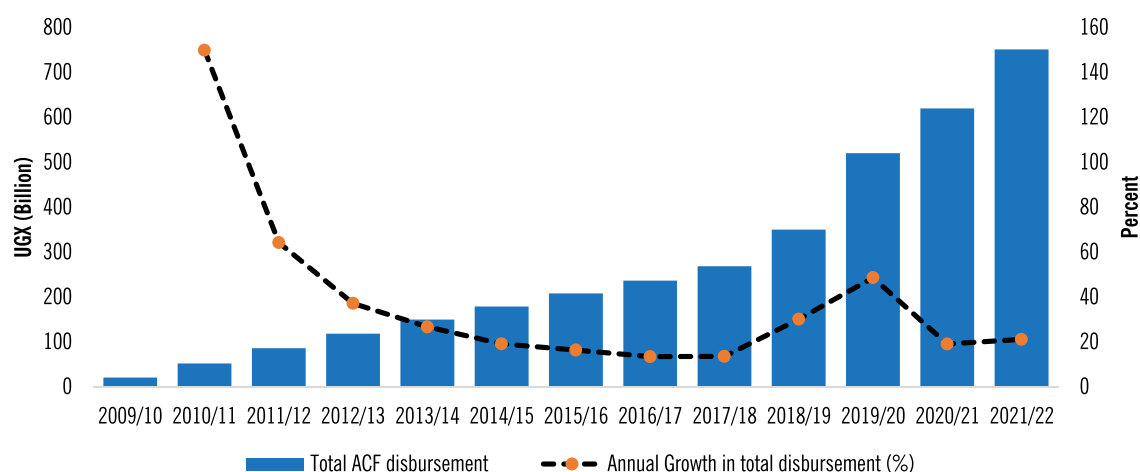
Source: Author's construction based on data from ACF Progress Report, (various years)

1.5.2: ACF Capitalisation, Disbursement and Allocation of Funds

Under the ACF Memorandum of Agreement MoA (2018), the Government committed to making an annual contribution of UGX 30 billion to the ACF scheme. In spite of that commitments, however, remittances of ACF funds by Government to the Bank of Uganda (BoU) Escrow account and subsequent transfers to the ACF capital account have been erratic (Figure 12).

From its inception in 2009/10, total ACF loan disbursements increased 30-fold, from UGX 21 billion in 2009/10 to UGX 620 billion (Figure 13). However, according to Bamwine (2019), the seemingly impressive

cumulative growth in total ACF disbursements was due more to continuous amendments² in the Memorandum of Understanding (MoU) undertaken over the years to bring certain segments and agricultural activities on board rather than to increased funding of the scheme. Thus, while GoU consistently deposited ACF funds to the BoU Escrow account, the amounts deposited were largely below the UGX 30 billion set out in the MoA (2018). Whereas in Financial Years (FYs) 2013/14 and 2020/21 Government made Escrow deposits greater than UGX 30 billion, deposits for FY 2015/16, 2017/18, 2018/19 and 2019/20 were extremely low. GoU transfers to the ACF capital account also remained highly intermittent and in 2013/14, 2015/16, 2016/17 and 2018/19, funds transfers were not registered.

Figure 13: Annual total ACF loan disbursements


Source: Author's construction based on data from ACF Progress Report, September 2021

According to the EPRC, the erratic trend in ACF funds capitalisation was due to delays in processing of loans and disbursement of funds to beneficiaries (MoFPED, 2019). In other instances, ACF loans were disbursed off-season and hence could not be used on time. All these affected the loan facility and blocked remittance of Government funds to ACF. Secondly, the fund had previously been undercapitalised by Government which resulted in PFIs disbursing lower loan amounts than requested that fully covered planned and ongoing activities.

It should also be pointed out that whereas there was consistent growth in total ACF disbursement in absolute terms, the annual percentage change in total ACF disbursements actually declined from ACF in 2009 until 2017/18 when a slight recovery was registered (Figure 13). The consistent decline in annual percentage growth in disbursement was due to several factors, the most important being *ad hoc* introduction of amendments to the ACF memorandum that were not matched with increased ACF capitalisation by the Government. The large percentage decline observed at the ACF inception came from withdrawal by almost all PFIs from participating in the ACF scheme during 2010 and 2012 that was occasioned by the Government's reduction of ACF loan guarantee from 50 to 33.3 percent (*ibid*). The new lower level guarantee cover forced PFIs to reduce and even suspend participation in ACF scheme because they considered the lower guarantee cover too risky for lending to agriculture.

The dismal ACF performance in Phase II prompted GoU and the PFIs to sign an addendum to the MoA that came into force during ACF Phase III (2011/12 to 2012/13). The addendum re-instated the lower loan interest rate of 10 percent per annum, and the higher GoU guarantee of 50 percent that obtained during Phase I (2009/10) levels. Unfortunately, additional amendments⁴ in subsequent phases of the ACF scheme (see Annex Table 3) that was aimed at increasing the scope of financing agricultural activities were not matched with increased ACF capitalisation by Government. In this regard, a key informant stated that: *"With the introduction of the*

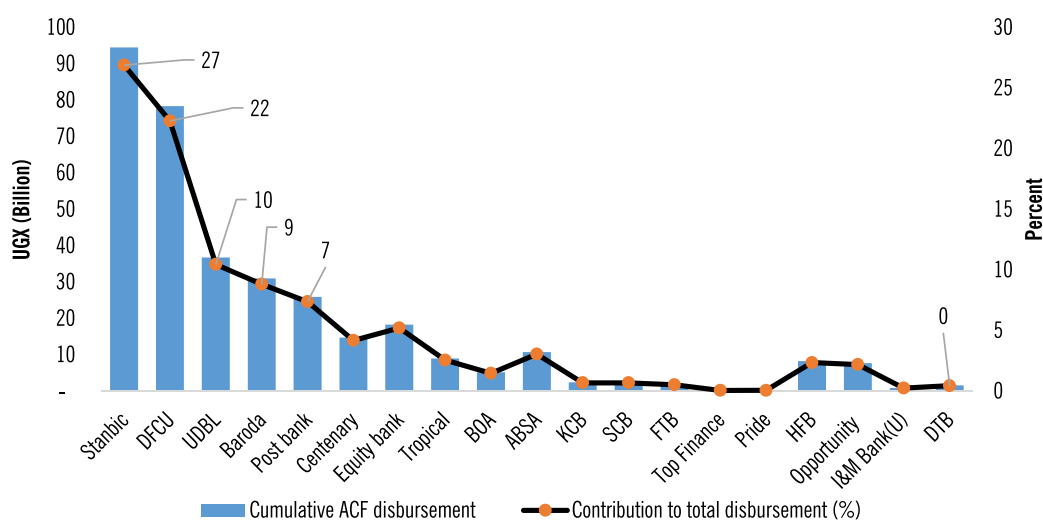
working capital for grain in 2017/18, Government was supposed to create a separate fund for this purpose. However, this has not been done up to now. The lack of a special fund for working capital for grain decreases the funds available for lending to other activities (Kills, Tuesday 21 March 2022)".

1.5.2.1: ACF fund allocation by Participating Financial Institutions and Activities

Of the ACF funds channelled to Tier 1 Participating Financial Institutions (PFIs), disbursement to beneficiary farmers and agro value chain borrowers is mainly through commercial banks (Figure 14). By June 2022, approximately 75 percent of all ACF loan disbursements were made through four main Tier 1 commercial banks and through Uganda Development Bank Limited which is the country's development finance institution (Figure 14).

While Tier 1 commercial banks have the advantages of direct central bank regulation, supervision and greater ability to mobilise finances for on-lending, they are not best suited to deliver credit services to smallholder farmers in Uganda. Indeed, Meyer *et al.* (2004) reported that Tier 1 commercial banks target large farms and agribusinesses involved in commodity processing, have stringent loan requirements, and limited rural outreach. In this regard, whereas between July 2011 to February 2013 the ACF block allocation was introduced under Addendum III to enable financing of micro, small and medium enterprises engaged in agriculture, participating Tier 1 commercial banks embraced its implementation with reluctance and caution.

As of December 2021, only 0.98 percent of the ACF total disbursement, i.e. UGX 6.5 billion out of UGX 660.5 billion, had been advanced under block allocation three years after its inception in 2018 (BoU, 2021). This poor performance was attributed to various factors, including high-risk aversion to lending to smallholder agricultural enterprises by Tier 1 PFIs; high lender transactional costs; low and unprofitable credit volumes involved⁵; and lack of

Figure 14: Cumulative ACF disbursement by PFI as of June 2022


Source: Author's construction based on data from ACF Progress Report, June 2022

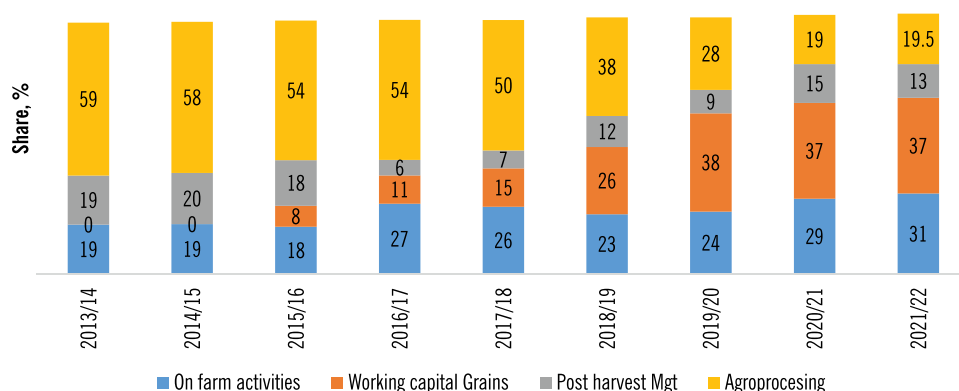
financial records and acceptable collateral to back loan requests.

Among smallholder farmers in Uganda, credit sourced from commercial banks accounts for only 9 percent of loans while that from Village Savings and Loan Associations (VSLAs) account for 31 percent (UBoS,2018). In the circumstance, to increase access to the ACF fund for smallholder farmers, Government needs to devise other feasible delivery mechanisms that smallholders are more familiar with and can easily process.

These mechanisms could entail Tier 1 PFIs liaising with lower Tiers, such as SACCOs and VSLAs, to deliver ACF

funds directly. And to avoid competition and ensure success, only Tier IV microfinance institutions regulated under the Uganda Microfinance Regulatory Authority (UMRA) should participate in this arrangement.

Secondly, while at its establishment the ACF fund was intended to provide medium and long-term financing for agricultural mechanisation, commercialisation and for large-scale agro-processing to promote local value addition, over the years, and through amendments and reforms to the ACF formative MoU and MoA, the scope of activities to be financed gradually changed.

Figure 15: Shares of the different activities funded under the ACF scheme, percent


Source: Author's construction based on data from ACF Progress Report, December 2021

Indeed, since 2013/14, the share of funds for agricultural mechanisation in total ACF disbursements has declined by more than half, from 59 percent in 2014 to 19.5 percent by December 2022 (Figure 15). In contrast, financing of activities not originally prioritised in the original MoU (2009) gained greater importance. For instance, the share of the working capital for grain trading financing in total ACF disbursements has increased from 8 percent since its inception in 2015/16 to 37 percent by 2020/21, UGX 261 billion of total ACF disbursement advanced to finance grain trade.

While the provision of finance for grain trading under the ACF scheme was meant to enhance the domestic market of agricultural raw materials and stimulate production of grain crops in the country, grain trade draws huge loan amounts. In addition, by default, PFIs favour ACF beneficiaries borrowing for grain trading (marketing) due to the short processing duration involved, high cash flow, large sales turnover of grain trade borrowings, and the high-value collaterals (grain mills and stores) committed for the loans. It is also evident from Figure 15 that the share of ACF financing towards post-harvest management and on-farm activities has stagnated over the years. All these challenges require urgent Government intervention to enhance ACF effectiveness, stimulate progress and assure success.

1.5.3: ACF Disbursement and Monitoring Processes

Disbursement of ACF funds from the Bank of Uganda (BoU), the source and administrator of funds, to applicants, the final beneficiaries (agribusinesses and small-scale farmers), is through the ACF Participating Financial Institutions (PFIs) and the fund administrators, i.e. Commercial banks, UDBL and MDIs, based on procedures set out in the Memorandum of Agreement (MoAs) between BoU and PFIs.

In the original MoA (2018), ACF loan applicants submit all their loan requests to the PFIs who scrutinize and evaluate

the loan requests based on their credit policies, including ascertaining the existence, viability, and conformity of investment entities with ACF eligibility requirements without any BoU interference. On loan approval by both the PFI and BoU, the PFIs disburse their own funds to the approved projects and thereafter request BoU to reimburse (or refinance) them. The reimbursement is also referred to as the GoU contribution. In 2020, BoU amended the loan approval process and introduced the requirement of additional mandatory scrutiny by its Legal Department of all ACF applications submitted to PFIs for adequacy of all collaterals. This is in addition to the independent legal security perfection by PFIs.

In a recent assessment of the ACF loan application and disbursement process, CASA (2021) reported that the current loan processing structure does not provide mechanisms for feedback between the BoU Legal Department, PFIs and beneficiaries on the adequacy of all collaterals submitted for ACF loans. It is also clear that the additional BoU scrutiny requirement has further encumbered the ACF loan acquisition process, particularly for smallholder farmers, thus causing undue delay in loans disbursement for agricultural projects that are usually bound by datelines and seasons.

Furthermore, because of lack of competent agricultural finance departments at some PFIs, the poor quality and inadequate structural compliance of many ACF loan applications submitted to PFIs encumber their scrutiny by the BoU, this slowing down the whole ACF disbursement process. High staff turnover of experienced agricultural loan officers within PFIs also means that BoU must deal with new officers who might not be conversant with the ACF processes and procedures. Besides, some lower Tier financial institutions (Tier II) PFIs are actually not accustomed to the rigorous ACF credit appraisal procedures now required by the BoU and find them cumbersome and bureaucratic. All these are affecting beneficiary access to and their proper utilisation of the ACF loans, and dampening attainment of the expected outcomes set out for the creation of the ACF thus implying

need for urgent review.

Under the current ACF implementation framework, monitoring the funded projects falls under the MoFPED, to be jointly undertaken by the Budget Monitoring and Accountability Unit (BMAU) and the participating PFIs. However, monitoring of the scheme remains inadequate. Importantly, information sharing between PFIs, BoU and BMAU is poor, and spot checks and scopes of monitoring by the BMAU are limited only to processes with little impact evaluation.

Given that the ultimate purpose of the ACF encompasses enhancement of agricultural production, productivity and agro value chain activities for the overall wellbeing of Ugandans, strengthening monitoring efforts and effective institutional coordination with Government Ministries, Departments, and Agencies (MDAs) would be necessary to ensure proper oversight and effective implementation of the ACF scheme.

1.5.4: Suitability and Effectiveness of the ACF Design and Financing Arrangement

In originally designing the ACF scheme that was launched in 2009, the ACF was intended to ease access of agricultural sector players and investors to medium and long-term financing on favourable terms for large agricultural projects to support and promote the modernization of Uganda's agriculture, through enhanced mechanisation, efficiency and commercialisation, and improved production and productivity. However, over time and through various amendments to the original MoAs during the various ACF Phases, the scope of the ACF design has broadened to encompass financing for all players in the country's agricultural sector, including micro and smallholder farmers.

Following over 13 years of ACF implementation, it is important to now review the current framework on which the ACF scheme is being implemented and its scope and suitability so as to identify bottlenecks and potential areas

for improvement or change. The critical aspects of the ACF scheme to consider are loan size, tenure and scope; status and involvement of PFIs; subsector loan flows; loan security and write offs; and loan delinquency and provisioning by BoU/GoU.

Loan Size, Tenure and Scope. At the start of the ACF scheme, the minimum loan amount provided for a borrower was UGX 250 million, and this was maintained during Phase I and II of the project. This large amount excluded many sector players from borrowing from the ACF. Later, however, the minimum loan amount was lowered to UGX 10 million in phase III, and was entirely removed by Phase IV (March 2013 to October 2015). To accommodate small borrowers, besides reduction of loan size, the minimum loan tenure was also reduced from 24 months to six months, and the loan-eligible purposes were expanded to include production activities, such as land opening, cattle stocking, and agro and veterinary inputs.

As earlier indicated, widening the scope of the facility over the years is commendable as it enhanced inclusivity. However, the increased need stretched the limited Government resources available for on-lending and thus blurred the scope of the facility to properly target and generate meaningful agricultural transformation. Indeed, there are concerns among ACF stakeholders that various addendums/reforms of the ACF scheme over the years were not backed by evidence and seemed reactionary and aimed at responding to immediate challenges. In this regard, a key informant stated that: ***While various addendums have been undertaken in the various ACF MoUs, confirming whether they have been backed up with evidence is difficult. For instance, what study informed the inclusion of financing for working capital and setting of its interest rate at 15 percent? What informed the lowering of lending thresholds to cater for small-scale borrowers in the scheme? (KIs, Thursday, 15th March 2022).*** These concerns can only be effectively responded to through in-depth review of the ACF scheme.

Participation of MDIs and CIs in the Scheme. As per the

ACF original MoU (2009), Micro-Deposit taking Institutions (MDIs) and Credit Institutions (CIs) contribute 30 percent of the loan funding approved for a borrower while the Government contributes 70 percent. In spite of the much higher loan guarantee coverage by Government, however, participation of MDIs and CIs in the ACF scheme has not been broad and deep enough, and much below that projected. The core concern of the PFIs is that the cost of funds for their contribution to the ACF scheme remain high, as most rely on borrowed funds acquired at higher interest rates than what are set for their lending under the ACF scheme. As a result, PFIs continue to prioritise marketing of their own agricultural products to clients outside the ACF scheme which, at set rates, is priced too low to cover costs and risks and generate meaningful returns on their investments.

Imbalance in Subsector Loan Flow. Whereas the ACF scheme is intended to broadly finance agricultural, agro-processing and grain trading enterprises, CASA (2021) reported huge imbalance in sub-sectoral funds disbursements. By December 2021, for example, working capital financing for grain trading constituted the largest share of ACF credit, and accounted for 37 percent (UGX 246 billion) of total disbursements. This higher flow of ACF loans to grain trade is an over-prioritisation that takes away working capital financing from primary production the outputs on which grain trade and agro-processing are dependent.

Under the ACF instrument design, for each borrower, financing for farm operating costs⁶ does not exceed 20 percent of the total project cost; the maximum loan amounts for biological assets do not exceed UGX 80 million. This provision limits focus on improvement of production and productivity which are key elements of modernised agriculture. These imbalances need to be reviewed.

Loan Security and Write-offs. Under the ACF instrument design, PFIs must ensure that the ACF loans they approve and advance are adequately secured, and they are responsible for deciding the appropriate security for

approved loans on the basis of their assessment of risks and collateral offered. In giving complete autonomy to PFIs regarding security requirements, the ACF design did not consider the composition of the target groups of borrowers. Thus, where most beneficiaries are smallholder farmers, they are less likely to have necessary securities, such as land titles and farm machinery and equipment needed to obtain loans from PFIs (World Bank, 2012), and so miss out on the opportunities that the ACF scheme was meant to create for them.

While in attempt to reduce the loan security challenge for small borrowers the ACF introduced the Block Allocation product, which allows small-scale farmers to obtain finance using alternative collaterals, Uganda does not have adequate collateral substitution options; and, in particular, the institutional and regulatory frameworks that can enable PFIs to shift to other forms of acceptable collateral. To broaden access to ACF financing by smallholder players in the agricultural sector, these gaps must be plugged through policy, adjustment of ACF framework and quick action.

Loan Delinquency and Provisioning. As requirement for delinquency and provisioning recovery of funds from BoU for ACF loans disbursed to borrowers by PFI lending institution under the ACF scheme, PFIs must inform BoU in writing of the status of each loan borrower and the amounts to be offset. On receipt of the delinquency report from PFIs, BoU in turn notifies MoFPED to execute the loan write-offs in accordance with laws for writing off Government assets or loans⁷. This write-off process involves, among others, commissioning an Officer from Office of the Auditor General to conduct an audit to ascertain the delinquencies and present the delinquency report and request, through MoFPED, to Parliament for approval of the loan write-off.

As seen above, and as reported by CASA (2021), this institutional process for writing off an ACF loan is too cumbersome and time consuming. It also ties up PFI's investment capital, and so is a huge discouragement for

PFI to take risks while lending. In the process, borrowers who could be supported under the ACF scheme to grow through the scheme are left out. This gap too needs to be addressed.

1.5.5: Appropriateness and Effectiveness of the ACF Legal and Institutional Frameworks

The current instrument guiding operations of the ACF scheme is the 2018 Memorandum of Agreement (MoA) between the MoFPED, the Bank of Uganda (BoU) and ACF Participating Finance Institutions (PFIs). This MoA is backed by relevant laws and supported by other internal PFI lending policies and manuals. Some of the key legal instruments include: (i) Financial Institution's Act, No. 2 of 2004 which sets out requirements for commercial banks; (ii) International Financial Reporting Standard 9 which guides the making of provisions for non-performing accounts; (iii) Microfinance Deposit-taking Institutions Act, No. 5 of 2003 for MDIs, which provides for the licensing, regulation and supervision of microfinance business in Uganda; and (iv) Laws on write off of a Government loan/asset, which guides the write off of Government loans.

Beside these laws, operations of the ACF scheme is also hinged on policy and operational manuals, including: (i) The Bank Loan Policy; which provides guidelines on loans; (ii) the Bank Operational Manual, which contains the operational policies, directives, procedures and other instructions for bank operations (iii) Bank Risk Manual, which guides the review of risk by PFIs. As happens in bank lending, a borrower may fail to pay a loan, in which case the lender suffers default and has to seize and dispose of collateral or write off the loan; or, may fail to uphold a loan repayment schedule and seek rescheduling of the loan. In the case of the ACF scheme where PFIs are intermediary lenders and substantial lending is to high risk smallholder farmers and agribusinesses, the PFIs can only find comfort in serving as ACF intermediaries lenders when they are legally cushioned against loan delays, defaults and write-offs.

Suitability of Legal Framework. Whereas policies and laws exist to guide implementation of the ACF scheme, the ACF scheme was established without the requisite statutory instrument that would allow it write off loans as a Government project (Bamwine, 2019); and Government procedures vested in the Auditor General do not cater for efficient periodic loan write offs. Consequently, potential delay and even failure of Government in settling PFI claims for loan write off have discouraged some PFIs from participating in the ACF scheme (*ibid*).

Being considerably different from conventional lending, the ACF scheme and other credit guarantee programmes operating in the country require regulatory frameworks suited to guarantee-type activities. However, there is currently no specific policy and legislation under which Credit Guarantee schemes (CGS) operate in Uganda (Nakazi, 2019). As such, development partners, such as aBi, USAID and DANIDA and other guarantors that set up the CGSs, have established internal policies to manage their respective CGSs. This legal gap constrains the the speedy and fair handling of ACF loan defaults and write off claims by PFIs. In addition, shortcomings have been identified in complying with the MoA GoU (2014), particularly regarding fund disbursement, fund utilisation, credit appraisal, monitoring and marketing that when addressed with strengthen the ACF scheme and enhance participation by PFIs.

Furthermore, the current law on restructuring commercial loans does not adequately cater to restructuring agriculture loans. In this regard, the Financial Institutions Act (FIA) of 2004 specifies that a business is liable for a maximum of two loan restructures. Since the maximum loan period under the ACF loan is 8 years and 2 years for working capital (commodity finance), in case of unexpected shock, such as the COVID-19 pandemic lockdown of 2020, and where a client has fully utilised the respective loan periods, loan restructuring becomes impossible. Yet under FIA the affected client is not eligible for loan restructuring.

Given that ACF is largely a development initiative that target smallholder farmers who need to grow their finance skills, and with agricultural enterprises now prone to weather shocks due to Climate Change effects, the FIA needs to be amended to accommodate ACF and other development aspirations, with amendments providing, among others, for flexibility in restructuring and rescheduling of agricultural and other development loans.

Effectiveness of the Institutional Framework. At inception, the ACF scheme focused primarily on setting appropriate framework for capitalisation, funds targeting and disbursement, and financial management and very little on the technical supervision of the farming and agribusinesses targeted under the fund. A value for money audit report of the Auditor General (2014) even clearly pointed out that, at the inception of the ACF scheme the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) was not involved. Yet, having MAAIF on board would have incorporated into the ACF framework the Directorate of Agricultural Extension Services (DAES) and the District Agricultural Officers (DAOs) to provide extension services and training and backstopping to beneficiary agricultural enterprises and target farmer groups (MoFPED,2020).

Against the above, the Ministry of Trade, Industries and Cooperatives (MTIC), as well as its MDAs, need to be incorporated into the ACF framework to provide holistic financial product and development services. Besides, existing institutions in the ACF implementation framework also face several implementation challenges. For instance, PFIs are constrained by lack of technical agricultural credit departments to undertake effective ACF credit appraisal; have high turnover of experienced staff; inability of MDIs and CIs to undertake rigorous appraisal required by BoU; and limited cash deposit holdings by MDIs for on-lending at low-interest rates under the ACF, when their own agricultural loan products compete aggressively with ACF loans. All these require better frameworks for participation.

It is also important to note that because the BoU is the regulator of the entire financial sector and does not have the requisite capacity to appraise agricultural credit applications, to make the ACF scheme effective and have greater impact, the mandate of the BoU in the scheme should stop at capitalisation, overall oversight and macroeconomic management. ACF would then be better managed by a Development Financial Institution (DFI) such as the Uganda Development Bank.

1.5.6: Emerging Policy Options to Consider

Based on the above review, a number of issues have emerged that need urgent consideration to strengthen the ACF scheme in order to strengthen its framework and activities so that the scheme meets its intended purpose. Some of these are suggested below.

i. Policy and legal framework to operationalise credit guarantee schemes

Presently in Uganda, there are no known policies or legislation under which the Credit Guarantee Schemes (CGSs) operates in the country. The gaps include lack of legal and regulatory framework to establish CGS as an independent legal entity; lack of legal provisions for adequate capitalisation and effective CGS supervision; and lack of active platform for CGSs to share information, foster innovation and lobby for enabling reforms. These gaps, and other enabling factors should be urgently considered.

ii. Introducing separate financing framework for grain trade

Given its more stable functional environment and the disproportionate competition for ACF funds that grain trade imposes on agricultural production, mechanisation and value addition, Government should consider introducing a separate fund within the ACF framework to provide working capital for the grain trade. Once available, the target of such a fund could be expanded financing grain trade to financing trade and value addition for other

key commodities such as coffee, tea etc. The approval limits of the fund would ensure that credit for other ACF objectives are not underfunded.

iii. **Expediting legal appraisal and approvals at the Bank of Uganda**

In order to reduce the current large timeframe in the appraisal and disbursement turnaround for ACF applicants and beneficiaries, Bank of Uganda should enhance efficiency of ACF appraisal processes. In this regard, a fully dedicated Legal Office could be set up as part of the ACF framework at BoU to focus on quick appraisal of loan files submitted by PFIs. This would increase the number of loans disbursed and reduce turnaround time; with resultant drastic reduction in current delays in loan disbursements and, in turn, increased timely use of ACF finance for greater impacts.

iv. **Instituting a Statutory Instrument to enable quick write off for ACF loans**

Currently, no statutory instrument exists that allows quick write off of ACF loans; and the existing Government procedures under the Auditor General do not adequately cater for quick loan write offs; yet the failure and delays of Government in settling PFI claims for loan losses are discouraging PFI participation in the ACF scheme. There is therefore urgent need to establish for the ACF and other credit guarantee programmes a suitable regulatory framework to facilitate guarantee-type activities which differ considerably from formal bank lending operations in the country.

v. **Complimenting ACF scheme with supportive agricultural services and policy actions**

For the ACF scheme to yield desired results, there is need to urgently remove underlying structural bottlenecks that constrain progress in the agricultural value chains in Uganda. In this regard, MAAIF and MTIC could be directly or indirectly integrated into the ACF scheme. In this integration, key focus should be on, among others: (i) removing barriers to access to formal markets through awareness building among agribusinesses on types of

existing formal markets, their procurement procedures and cycles and expected product standards ; (ii) reducing barriers that limit the export of Uganda's agricultural commodities by boosting capacities of beneficiaries and supporting quick and attainment of appropriate export standards; and (iii) provision of technical skills for product innovation for both beneficiaries and their workforce by strengthening agricultural extension and training under MAAIF.

Finally, available evidence clearly affirms that, while expansion of financing that the ACF scheme has targeted is important and necessary, improved access to finance alone will not guarantee attainment of agricultural mechanisation, modernization, commercialisation and value-chain successes without sufficient attention being paid to underlying structural factors related to legal and regulatory frameworks, risks, transaction costs and asymmetric information flow among others. Going forward, these issues need to be closely considered.

References

- Bamwine, R., (2019). Ten Years of the Agricultural Credit Loan facility. Agricultural Finance Yearbook 2019, Economic Policy Research Centre, Kampala, Uganda. Accessed at <https://eprcug.org/publication/agriculture-finance-year-book-2019-development-financing-for-agro-industrialisation/>
- BMAU, (2019). Ministry of Finance, Planning and Economic Development, Kampala, Uganda. Accessed at <https://www.finance.go.ug/sites/default/files/Publications/BMAU%20Policy%20Brief%2016-19%20Performance%20of%20Agriculture%20Credit%20Facility%20in%20Uganda%20-%20What%20are%20the%20trends.pdf>
- BoU, (2021). ACF Progress Report as of December 31, 2021, Kampala, Uganda. Accessed at <https://www.bou.or.ug/bou/bouwebsite/ACF/>
- CASA, (2011). Study of the framework, status and impacts

of the agriculture credit facility on agribusiness in Uganda-*unpublished*.

GoU, (2009). The republic of Uganda, Memorandum of Understanding. Ministry of Finance Planning and Economic Development, Kampala, Uganda

GoU, (2014). Value for Money Audit report on the implementation of the Agricultural Credit facility. Office of the Auditor General, Ministry of Finance Planning and Economic Development, Kampala, Uganda

GoU, (2019). Memorandum of Understanding, Ministry of Finance Planning and Economic Development, Kampala, Uganda. Accessed at <https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/AgriculturalCreditFacility/Original-copy-of-the-MoU-Scanned.PDF>

Meyer, R.L., Roberts, R., and Mugume, A., (2004). Agriculture finance in Uganda: The way forward. FSD Series No. 13. Accessed at <https://www.findevgateway.org/sites/default/files/publications/files/mfg-en-paper-agricultural-finance-in-uganda-the-way-forward-jun-2004.pdf>

MoPFED, (2020). Semi- annual Budget monitoring report, financial year 2019/2020. Ministry of Finance, Planning and Economic Development, Kampala, Uganda. Accessed at <https://budget.go.ug/sites/default/files/National%20Budget%20docs/Semi-Annual%20Budget%20Performance%20Report%20FY%202019-20.pdf>

MoPFED, (2019). Performance of the Agricultural Credit Facility in Uganda: What are the trends?

Nakazi, A. (2019). Use of Credit Guarantees in financing Ugandan agriculture. Agricultural Finance yearbook, Economic Policy Research. Accessed on <https://eprcug.org/publication/agriculture-finance-year-book-2019-development-financing-for-agro-industrialisation/>

UboS, (2018) Uganda National Household Survey report 2016/17, Uganda Bureau of Statistics, Kampala, Uganda. Accessed at https://www.ubos.org/wp-content/uploads/publications/03_20182016_UNHS_FINAL_REPORT.pdf

Endnotes

- 2 Some of these include; introduction of the grain facility to provide working capital for purchase of grain, reducing the minimum loan tenure from 24 to six months to allow for small borrowers requiring small loans, introducing the block allocation /wholesale option of up to UGX 1.5 billion so that PFIs can on-lend to agri-SMEs (without submitting the individual applications to BoU); allowing loan facilities of up to UGX 20 million to be advanced without PFIs asking for physical collateral, expansion of scope of financing on-farm activities to include financing for production activities land opening, improved seedlings and breeds of cattle, agricultural inputs like fertilisers and pesticides among others.
- 3 BoU Escrow is an account in Bank of Uganda to which Government deposits its annual ACF deposit of UGX 30 billion. An ACF capital account is one from which BoU makes refinancing to the PFIs after they make their disbursements
- 4 Working Capital for Grain trading, Block allocation for smallholders, Changes to minimum and maximum loan sizes aimed at widening the coverage of the Facility to include those who wished to borrow more or less than what was initially envisaged, reducing the minimum loan tenure from 24 to six months to allow for small borrowers requiring small loans etc.
- 5 Most PFIs did not consider it feasible to lend below UGX 10 million under the ACF scheme
- 6 Includes wages for workers, overhead costs like utilities, installation costs, hire of agricultural machinery and equipment
- 7 Involves among others, commissioning of the Officer of the Auditor General to conduct an audit to ascertain the delinquencies and presenting the delinquencies to parliament by MoPFED to approve loan write off.

Annex

Table C: Evolution of the ACF –Summary (Year 2010 to 2019)

	PHASE I	PHASE II	PHASE III	PHASE IV	PHASE V	PHASE VI
Duration	Oct 2009 to June 2010	July 2010 to June 2011	July 2011 to February 2013	March 2013 to October 2015	November 2015 to April 2018	May 2018 till a time to be agreed upon by the stakeholders.
Maximum loan amount to a single borrower	2.1 billion	2.1 billion, but could be lifted to 5 bn on case by case basis	2.1 bn to 5 billion case by case	2.1 bn to 5 billion case by case	2.1 bn to 5 billion case by case	No lower limit and upper limit can be adjusted as and when need arises.
Government Contribution and Guarantee	50% for all PFIs	33.3% for all PFIs	50% for all PFIs	50% for Commercial banks and UDBL 70% for MDIs & CIs	50% for Commercial banks and UDBL 70% for MDIs & CIs	50% for Commercial banks and UDBL 70% for MDIs & CIs
Annual interest rate (%)	10% per annum	12% per annum	10% per annum	12%	12% and 15% for the grain facility	12% & 15% for the Grain Facility
Loan period (months)	Minimum 24 months Maximum 96 months	Minimum 24 months Maximum 96 months	Minimum 6months Maximum 96 months	Minimum 6months Maximum 96 months	Grain Facility Maximum period 24 months	Minimum 6 months Maximum 96 months. Grain max is 24 months
Changes in eligibility criteria			Block allocation of UGX 5 billion to cater for SMEs. PFIs remit applications in batches of UGX 10 million (Minimum reimbursable amount UGX 10 million)		Was expanded to include: land opening. 100% of Agricultural inputs and biological assets were included and capped at UGX 80 million to each eligible borrower. Grain Facility introduced as a sister Fund to the ACF for providing working capital for Grain Trade.	Alternative collateral for up to UGX 20 million. Purchase of tractors for hire to SMEs
Minimum Loan amount (UGX)	250M	250M	10M Working capital increased from 10% to 20%	No lower limit, especially under Block allocation	No lower limit	10M to the PFI, but the PFI can give the borrower any amount required.
Other feature						Incentivize PFIs through recognising the best performers

Source: Bank of Uganda



2

CHAPTER INNOVATIONS AND REGULATED FINANCIAL INSTITUTIONS OPERATIONS

2.1 PROMOTING MOVABLE COLLATERAL FOR FINANCING AGRICULTURE: THE CASE OF THE SECURITY INTEREST IN MOVABLE PROPERTY REGISTRY SYSTEM (SIMPO)

Linda Nakato¹ and Stellah Kakwezi²



2.1.1. Introduction

The agriculture sector in Uganda is a key pillar of the economy, and it makes huge contributions to livelihoods and household incomes, economic growth and employment creation. In FY2021/22, for example, the sector contributed 24.1 percent of the country's GDP (UBoS, 2022) and 33 percent of export earnings (ITA, 2022). Agriculture is the major contributor to employment, providing jobs to the largest proportion (68 percent) of the working population (UBoS, 2021).

Whereas the contribution of agriculture to Uganda's economy is quite evident, being a key element of rural life and the primary economic activity, the sector is still plagued with multiple challenges; with access to finance remaining a major constraint limiting productivity and the transformative potential of the sector. In 2018, for example, the agriculture sector received only 12.2 percent of total credit (BoU, 2018), and it reduced to 10.7 percent of total commercial bank credit as of December 2022 (BoU, 2023). Lack of acceptable collateral is the key reason why financial institutions shy away from lending

to the agriculture sector (Meyer *et al.*, 2004), given that up to 85 percent of people engaged in agriculture are smallholder farmers most of whom do not possess acceptable collateral which makes lending to them too risky and costly (Munyambonera *et al.*, 2012).

The Uganda National Development Plan (NDP) II 2015/16-2019/20 (NPA, 2015) identified limited access to credit as partly attributable to the absence of a collateral registry for movable property in the country. This is increasing the credit risks for lenders and is contributing to the high-interest rates. In recognition of the gap, several innovations and/or reforms have been undertaken to tackle the collateral challenge faced in the agriculture sector in Uganda. One such reform has been the amendment to the legal and regulatory framework to make provisions for the acceptance of movable collateral backed up by setting up a movable collateral registry, this being "a record of legal claims to personal property used as collateral for a loan".³

In 2016, the Uganda Registration Services Bureau (URSB) embarked on a journey of legal reform to implement the strategic intervention of developing a movable collateral registry to ease borrowing, increase the pool of new borrowers and help reduce interest rates. This led to the

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enactment of the Security Interest in Movable Property Act of 2019 which repealed the Chattels Securities Act, 2014. The new Act introduced an online movable collateral registry known as the “Security Interest in Movable Property Registry System (SIMPO)”.

Movable collateral registries allow borrowers to use a range of assets, besides the traditional land and buildings, to access loans subsequently increasing the availability and reducing the cost of credit. The innovation is ideal for rural small-scale farmers and entrepreneurs who lack reliable collateral but urgently need credit to develop. This article sheds light and creates awareness about movable asset-based lending; gives an overview of the SIMPO, its benefits, key trends in the uptake and usage of the registry; examines challenges in using the registry for agriculture credit; and suggests policy options.

2.1.2: Overview of the Security Interest in Movable Property (SIMPO) Registry System

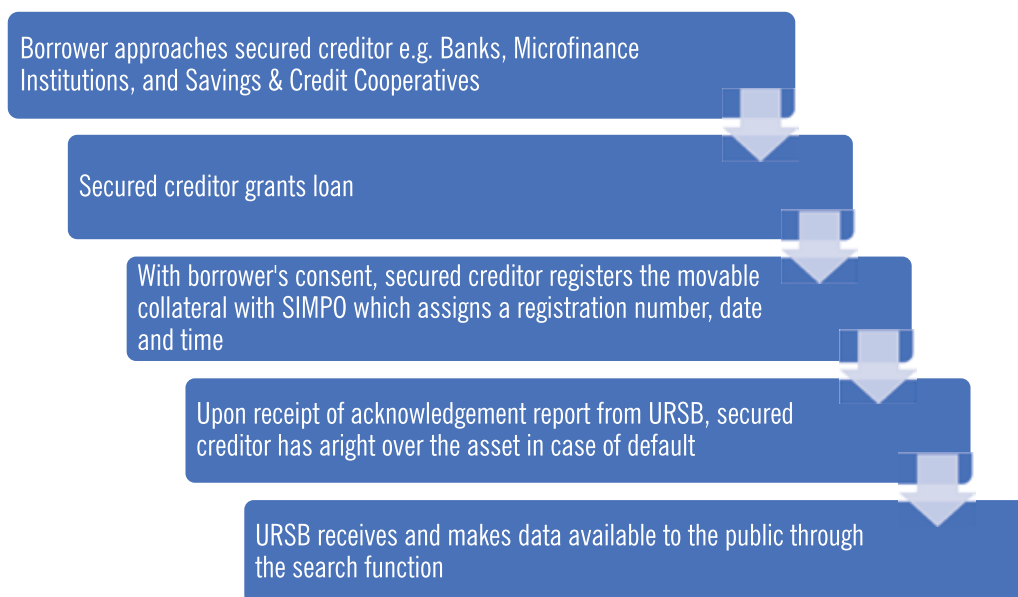
The Security Interest in Movable Property (SIMPO) system is an online registry managed by URSB that

enables lenders, such as banks, microfinance deposit and non-deposit-taking institutions, Savings and Credit Cooperatives (SACCOs), licensed money lenders and non-financial institutions, to register their interests over movable property that has been pledged as collateral to access credit (Figure 16). The registry was established under the Security Interest in Movable Property Act of 2019 (SIMPA, 2019), which provides for the use by individuals and entities of movable assets as collateral to access credit.

Movable properties under this law include tangible assets such as livestock, farm produce, farm machinery, motor vehicles, motorcycles, household items, manufacturing plants, and machinery, etc.; intangible assets such as Intellectual property rights and shares in a company; negotiable instruments; investment securities; cash/money; and documents of title.

SIMPO offers vital services, such as registration, amendment, cancellation, and discharge of security interests and aliens in movable property. It also enables conducting of search on the database, and establishment

Figure 16: How SIMPO works



Source: Author's own construct

Source: Author's own construct

Figure 17: Benefits of SIMPO

Borrowers	Lenders	General Public
<ul style="list-style-type: none"> • Access to affordable credit using movable assets as collateral other than the traditional land and buildings. • Legal protection of the property used as collateral since the law makes transfer before getting credit illegal. 	<ul style="list-style-type: none"> • Reduces information asymmetry. • Increases lender confidence by providing a platform where they can register their interests. • Reduces risk of multiple borrowing using the same collateral. • Provides clear rules of priority i.e. rules for determining priority of claims among competing claimants. 	<ul style="list-style-type: none"> • Protects against buying second-hand goods that have been pledged as collateral by providing the ability to search the system before purchase.

Source: Author's own construct

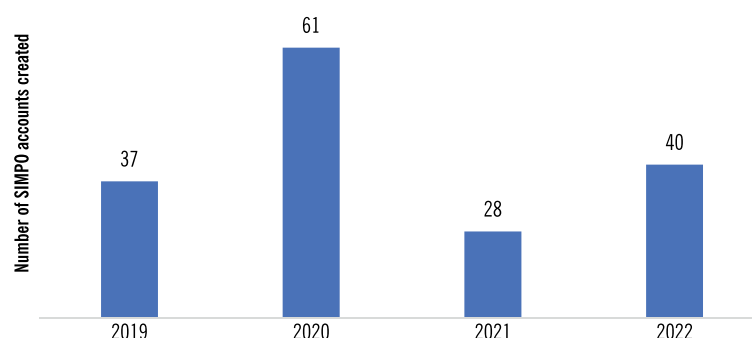
of priority between registered competing claims on the same collateral among others (Figure 17). Because of this, the registry is of enormous benefit to lenders, borrowers, the finance sector and the country generally (Figure 17).

2.1.3: Progress in the Implementation of SIMPO

From the establishment of SIMPO in September 2019, both local and foreign companies created over 166 accounts in the system as at end of 2022. Whereas the number of registered accounts has been fluctuating over time, 2020 registered the largest number of secured creditors showing intent in using the registry by opening an account was in 2020 (Figure 18). The high registration resulted

from vigorous sensitisation of the lenders by URSB in 2020 which propelled significant number of register on the system, most for the first time.

By 2022, the system had 24 accounts created by Tier 1 institutions out of the 25 licensed commercial banks (BoU, 2022a); 6 by Tier II institutions, three registered local ones (BoU 2022b) and the other three foreign credit institutions; 4 by Tier III institutions out of the five licensed Microfinance Deposit-taking institutions (BoU, 2022c); and 62 by Tier IV institutions out of the 1,453 money lenders and Non-deposit taking microfinance institutions registered with the Uganda Microfinance Regulatory Authority.

Figure 18: Trends in SIMPO account creation by financial institutions (2019-2022)

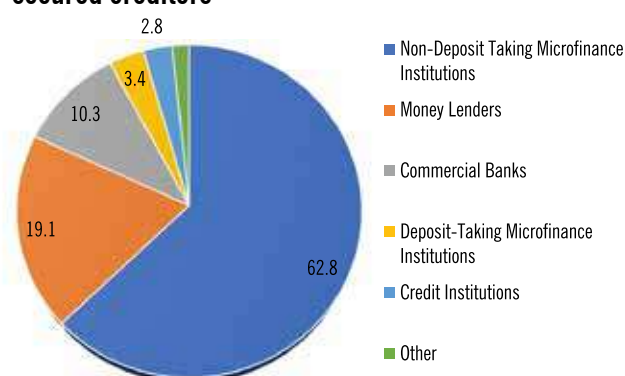
Source: Author's own construct based on data from the URSB

Source: Author's own construct based on data from the URSB

Other accounts were also created by development banks, associations, trustees etc. The processes and gaps in accounts creation highlight the need to increase sensitisation campaigns the possible benefits of registering on the SIMPO, particularly among the Tier IV institutions.

SIMPO Registration since inception. As of December 2022, the USRB registry had a total of 16,202 security interest registrations, with noticeable jump in annual growth from 1,986 registrations in 2019 to 5,339 in 2022. Generally, there is high usage of the registry by tier 4 financial institutions, with Non-deposit taking Microfinance Institutions (MFIs) represent the largest share of registrations of over 62.8 percent), followed by money lenders (19.1 percent), and commercial banks

Figure 19: Security interest registrations by different secured creditors



Source: Author's own construct based on data from the USRB

*Other includes development banks, individuals, SACCOs and trustees

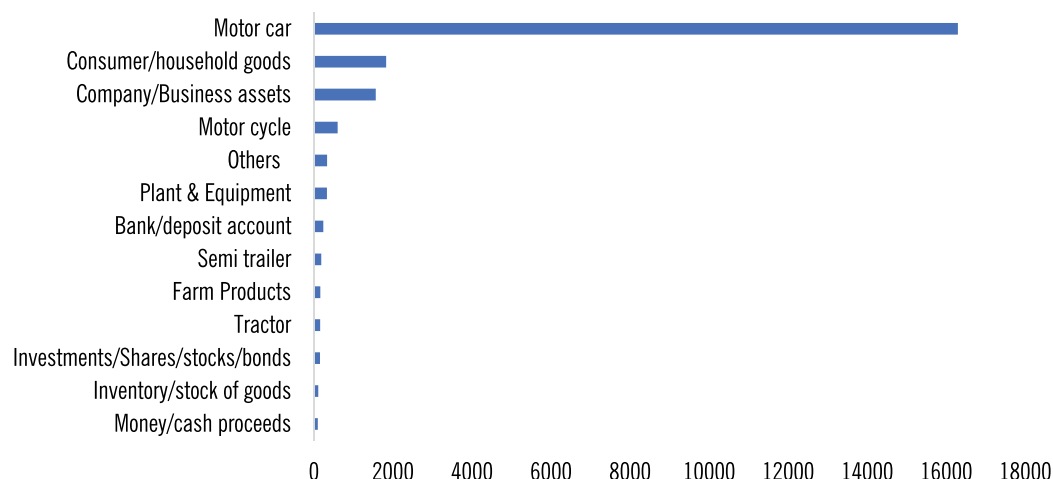
at 10.3 percent (Figure 19). Registration for all these finance institutions has been increasing over time, while registration by money lenders and credit institutions have, on the other, declined.

The above trends highlight the fact that while Tier IV institutions are continuing to accept to lend against movable collateral Tier 1 institutions still prefer conventional immovable property, due mainly to the risky nature of movable collateral and the fact that such property depreciates in value over time. Efforts are being made to encourage Tier 1 institutions to lend against movable property by, for example, widening the potential asset base upon which borrowers can take loans outside risky ones. Steps are also being taken to revamp the warehouse receipt system since banks are willing to lend through this system.

Also worth noting is the fact that the default rate of security interests made on the registry is low. Of the total registrations on the system thus far, default and enforcement notices have been registered by the lenders on 1,305 (8.05%) on security interests, of which 108 were canceled after borrowers remedied the default (either paid or amended payment schedule) and 46 registrations were recorded under disposal notices.⁴

Assets registered as collateral. From the variety of assets registered as collateral on SIMPO, it is evident that

Figure 20: Assets registered as collateral under the SIMPO (2019-2022)



Source: Author's own construct based on data from the USRB

the registry has expanded the pool of viable assets that can be used to access credit (Figure 20). Motor cars are by far the most used and accepted collateral sub-type with over 16,297 (73.9%) registrations out of a total of 22,059, followed by consumer/household goods with 8.28 percent. While the law allows for the use of various movable assets as collateral, only a limited range of assets are accepted by financial institutions as collateral due to high depreciation of household chattels (Figure 20).

Whereas farm products are acceptable for asset registration, they still constitute a very negligible proportion of registered assets (0.74 percent), which raises the need to de-risk agriculture -related securities as earlier mentioned. Other collaterals that can be used include bank/deposit accounts and accounts receivable; currencies, money and cash proceeds; Stocks of goods, commodities, perishable goods, livestock and farm harvests; industrial plants and equipment; fixtures and fittings; company assets, business assets, investment shares/stocks/bonds; inventory and non-perishable goods- semi-trailer, I tractor, motorcycles, outboard motor; and commingled assets, accession etc. (Figure 20).

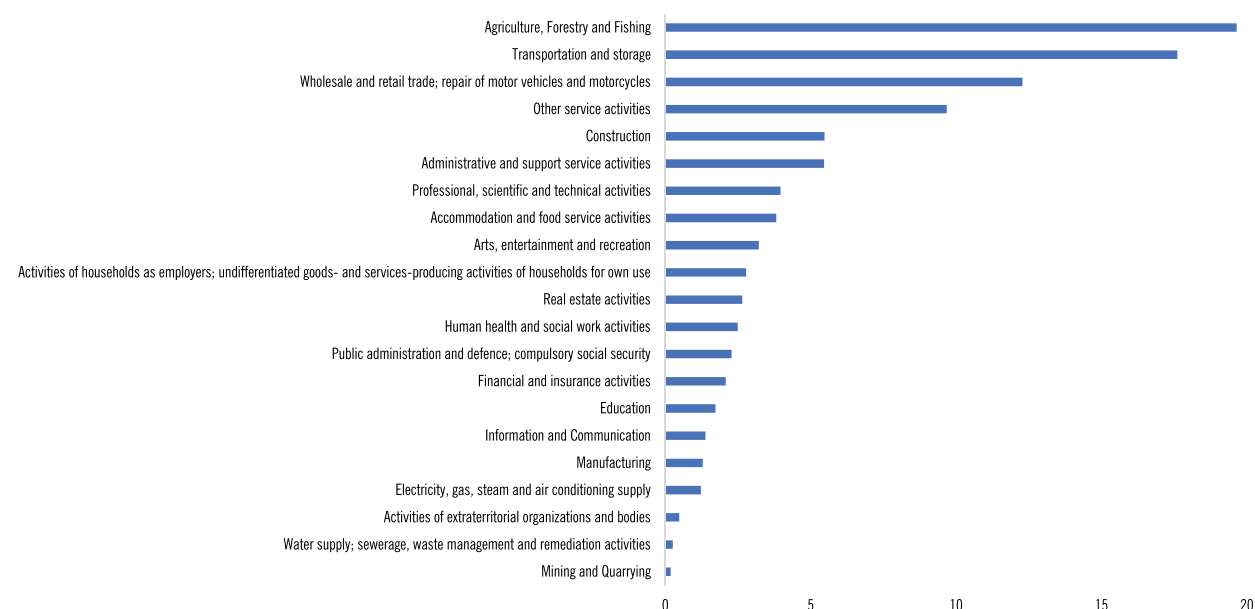
Further disaggregation shows that Tier 1 financial

institutions, i.e. commercial banks, still use mostly assets that borrowers involved in smallholder agriculture and micro-businesses are unlikely to possess. Commercial banks mainly register company/business assets, while financial institutions like non-deposit-taking MFIs, deposit-taking MFIs, credit institutions, and moneylenders mainly register motor cars.

Landscape of movable asset-based agriculture financing.

With respect to lending for the agriculture sector, 2,979 transactions have been registered under the agriculture, forest and fishing sector, which constitute 19.6 percent of the total registrations on the system (Figure 21). The agriculture sector currently forms the largest share of transactions on the registry which shows the potential for the registry to enhance credit access for the sector. However, registrations under the sector are still hampered by the low desire of the lenders (all Tiers) to lend to the sector. Also, other lenders still consider land as the primary security for agricultural loans, while lenders outside Kampala are hardly aware of the SIMPO services. To build awareness, sensitisation drives have so far been undertaken in a few districts, including greater Kampala, Arua, Mbale, Jinja, Mbarara, Masaka, Kabale, Hoima, and greater Masaka. Therefore, major awareness campaigns

Figure 21: SIMPO registration by different sectors



Source: Author's own construct based on data from the URSB

need to be undertaken throughout the country, and also in the mass media.

2.1.4: Challenges in Use of SIMPO to Enhance Agricultural Credit Access and Recommendations

Overall, movable asset lending has had multiple benefits for farmers, Micro, Small and Medium Enterprises (MSMEs), and financial services providers. The main benefit for farmers is that it increases access to credit and makes it more affordable. Effective implementation of SIMPO widen the type of assets that agricultural sector players can use as collateral. At the same time, movable asset lending backed by a movable collateral registry will help increase the confidence of lender in lending to the sector. Nevertheless, in order to make meaningful progress, outstanding challenges still remain that need to be critically considered and addressed. Of particular are the following:

(i) **High risk of some movable collateral.** Some movable assets, such as agricultural produce and products, are considered risky due to challenges such as poor/limited storage; external shocks and economic pressures, Climate Change; incurable crop diseases etc. These create unforeseeable risks that limited their acceptability among financial institutions.

(ii) **Limited adoption of movable collateral among tier I to tier III financial institutions.** There is still a big challenge of the shunning of movable property as collateral by Tier I to Tier III financial institutions. This is visible from the higher number of registrations made by the Tier IV and money lending institutions compared to those by the Tier I-III institutions.

(iii) **Limited awareness and understanding of the SIMPO.** Generally, different actors, including some financial services providers, policymakers, judicial officers and supporting organisations, do not have solid understanding of how SIMPO operates. This is exacerbated

by the fact that several borrowers do not know about the existence of the system and its associated benefits in easing their access to credit.

Amidst the challenges enumerated above, there is potential in financial institutions, farmers and agribusinesses taking advantage of the SIMPO to broaden access to agricultural credit. To be able to reap optimal benefits from the SIMPO, the following actions need to be urgently considered:

(i) **De-risking agricultural-related collateral.** Collaborate with other stakeholders (Ministry of Agriculture, Animal Industry and Fisheries, Uganda Warehouse Receipt System Authority) to de-risk agricultural-related collateral like livestock and farm produce. For example, Zimbabwe and South Africa have registries that keep track of activities relating to their cattle. This significantly reduces the risk associated with pledging cattle as collateral.

(ii) **Boosting institutional, legal and regulatory framework for a strong credit infrastructure.** A sound regulatory framework provides a healthy competitive environment for Small and Medium Enterprises (SMEs) and improves their financial capability. In Uganda, we have the challenge of case backlogs and obtaining Court orders during enforcement of loans over movable property, which take much long time than in countries such as Zimbabwe and Kenya.

(iii) **Educating Government actors, Legislators and financial institutions.** Training on SIMPO will help build awareness among key actors, and build institutional and market capacities to use the system for securing transactions; thus increasing movable asset-based lending and unlocking the potential of underused assets for agricultural lending.

(iv) **Mass country-wide borrower sensitisation.** Sensitisation of borrower on SIMPO will create awareness about and generate interest in the loan opportunities presented using movable property as collateral, and on

their rights as borrowers, and protection of their property under the law that the system offers.

The overall impact of the above will be enhanced capacities and vibrancy of the role of financial institutions and borrowers in the economy of Uganda, with huge benefits to agriculture, agro-value chain activities, industries and the general economic development of the country.

References

- BoU, (2018). Financial Stability Report. Kampala: Bank of Uganda. Kampala, Uganda. Retrieved from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/FinancialStability/financial_stability/Rpts/All/Financial_Stability_Report_June-2018_final.pdf
- BoU, (2022a). Licensed Commercial Banks as at June 30, 2022. Kampala: Bank of Uganda. Kampala, Uganda. Retrieved from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/Supervision/Supervised_Institutions/Supervision/financial_institutions/2022/LICENSED-COMMERCIAL-BANKS-AS-AT-JUNE2022-02.pdf
- BoU, (2022b). Licensed Credit Institutions as at June 30, 2022. Kampala: Bank of Uganda. Kampala, Uganda. Retrieved from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/Supervision/Supervised_Institutions/Supervision/financial_institutions/2022/LICENSED-CREDIT-INSTITUTIONS-AS-AT-JULY-01.pdf
- BoU, (2022c). Licensed Microfinance Deposit-Taking Institutions (MDIs) as at June 30, 2022. Kampala: Bank of Uganda. Kampala, Uganda. Retrieved from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/Supervision/Supervised_Institutions/Supervision/financial_institutions/2022/LICENSED-MICROFINANCE-DEPOSIT-TAKING-INSTITUTIONS-MDIs-AS-AT-JUNE-30-2022.pdf
- BoU, (2023). Credit by Sector. Kampala: bank of Uganda. Kampala, Uganda. Retrieved from <https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/statistics/MonetaryStatistics/Credit-By-Sector.xls>
- ITA, (2022). Agricultural Sector. Washington DC: International Trade Administration. Washington DC, USA. Retrieved from <https://www.trade.gov/country-commercial-guides/uganda-agricultural-sector>
- Meyer, R. L., Roberts, R., Mugume, A., (2004). Agricultural finance in Uganda: The way forward. German Technical Co-operation.
- Munyambonera, E., Mayanja, M. L., Nampeewo, D., and Adong, A., (2014). Access and use of credit in Uganda: Unlocking the dilemma of financing small holder farmers.
- NPA, (2015). Second National Development Plan (NDPII) 2015/16 – 2019/20. Kampala: National Planning Authority. Kampala, Uganda. Retrieved from <http://npa.go.ug/wp-content/uploads/NDPII-Final.pdf>
- UBoS, (2021). Uganda National Survey Report 2019/2020. Kampala: Uganda Bureau of Statistics. Kampala, Uganda. Retrieved from https://www.ubos.org/wp-content/uploads/publications/09_2021Uganda-National-Survey-Report-2019-2020.pdf
- UBoS, (2022). Revised Annual Gross Domestic Product 2021/2022. Kampala: Uganda Bureau of Statistics. Kampala, Uganda. Retrieved from https://www.ubos.org/wp-content/uploads/publications/11_2022AGDP_October_2022_Release.pdf

Endnotes

- 3 <https://www.marketlinks.org/finance-wiki/442-build-collateral-registries>
- 4 The notice that the lender gives to the borrower, other secured creditors, and interested parties about the fact that they are moving forward to sell off the asset due to the lenders' failure to pay.

2.2 BROADENING FINANCING FOR AGRIBUSINESS ACTORS IN UGANDA: EXPERIENCES FROM THE PILOT OFF-TAKER PARTNERSHIP INITIATIVE OF CENTENARY BANK

Asaph Besigye¹ and Fred Migadde²



2.2.1: Background

Innovating and broadening financial outreach mechanisms, when carefully handled and guided by information, has high potential to increase delivery of, and access to, financial services for agribusiness value chain actors. This is because the financing needs of the actors and the financing opportunities in the value chains continuously evolve. The risk and return, as well as cost and convenience of delivery of and access to financial services arguably remain the key sticky issues in agribusiness financing, and continue to be kingpin considerations for both the finance supply and demand sides. As has been severally highlighted in the previous series of the Agricultural Finance Yearbook, they are major contributors to the less-than-desired growth of formal credit for the agribusiness sector in Uganda. Oftentimes, these factors are inadequately addressed due to information asymmetry.

To provide properly tailored financing in respect to terms and delivery mechanisms, financial institutions interested to finance the agribusiness sector need to understand the transactional mechanisms and terms for the sector actors as well as their financing needs and timing. In addition, proper assessment should be made of their creditworthiness through analysis of the profitability and returns on investment of their transactions.

In Uganda, many businesses based on agricultural commodities are characterised by, among other phenomena, aggregation of products through linked off-takers who may include processors, bulkers and exporters transacting as private enterprises or farmer organisations. The common commodities include dairy, tea, coffee, cocoa, oil palm, rice, maize, vanilla, sesame, soybeans, sorghum, barley and horticulture. In some cases, off-takers have linkages extending beyond the direct suppliers of the commodities to other value chain levels and support services such as inputs/equipment

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suppliers, extension services etc. If their transactions with their linked suppliers are clearly understood and quantified, the off-takers should provide desired conduits for enhanced outreach for financial institutions seeking to finance agribusiness value chain actors, including smallholder farmers.

In the case of off-taker linkages made through farmer organisations, many of the organisations embed financial service arms by way of savings and credit cooperatives (SACCOs) established to cater for the financial service needs of their members, especially for the lower segments of the value chain. This mechanism provides a framework for structural linkages between farmers, farmer cooperatives and the SACCO. However, the SACCOs in this structure are oftentimes characterised by inadequate liquidity and financial products that do not match the characteristics of agribusiness operations of many members.

It is on the basis of the above that the Centenary Bank, with support of the European Investment Bank (EIB)'s Technical Assistance through the African Caribbean and Pacific (ACP) Smallholder Financing Facility³, launched the initiative to diversify, in a profitable way, the mechanisms for outreach for its agricultural portfolio. Under this initiative, the Bank is undertaking agricultural financing through off-taker partnerships; which initiative is presented and discussed in this article.

2.2.2: Rationale for Financing Through Off-taker Partnerships

The need to minimise risks and costs while striving to generate viable portfolios and higher outreach in a target market is a keystone in financial services delivery, more so for the agricultural sector. Pursuing individual clients, such as smallholder farmers, provides channel for effective financial services delivery because it constitutes a deeper mechanism for screening and appraisal of clients, and serves a mass market. However, its associated risk, costs, inconvenience, and turnaround time are often

times higher and thus can constrain the profitability and growth of the portfolio. Therefore, collaboration and partnerships with key third party actors in the value chain prove better mechanisms that can allow for aggregation of demand for desired financial services, and for leveraging of credit delivery support roles for client screening, credit recommendations, partial monitoring of financed clients and structured disbursement and recovery of loans. Besides, through tripartite arrangements delivery of financial services, such as credit, at low cost and low risk to bigger numbers of clients can be realized more easily.

Off-takers in the value chain know better the operations of the actors they are linked to, and thus their financial service needs as well as capacities to meet their credit obligations. For example, coffee farmers' cooperatives and unions understand better and more accurately production requirements (inputs, labour, post-harvest materials, tools, etc.) of their farmer members and sources; the facilities for enhancing the bulking and marketing of coffee; volume and value of marketed output over time; lead time for receipt of coffee sales proceeds; non-coffee production household financing needs etc. This information, strategically harnessed, is very useful for the impactful delivery of financial services in such a commodity sector.

Thus, delivery of financial services through partnerships with commodity off-takers, such as farmer cooperatives and unions, can provide effective channels that help to deepen and broaden outreach to the target actors in the value chain and, more importantly, to the smallholder farmers. It can therefore be pursued not for substituting but rather to complement the conventional mechanism of engaging with individual clients in the targeted value chain. If financing through partnership with off-takers is well designed, it can help address the concerns that have been highlighted above; reduce access costs and inconveniences for target clients; and thus help to increase the number of on-boarded clients, such as smallholder farmers, in the value chain. This can be achieved through reduction in the information asymmetry that is often a

key hindrance in the agricultural and other rural financial services initiatives.

The financing partnership with off-takers should allow for quick scooping and screening of clients, rapid and timely appraisal of their financing requests, and clear risk-minimising mechanisms through structured credit disbursement and recovery. It will also help support a strong relationship management environment between the Bank and the smallholder clients, enabled by the referral services of the off-takers, and any necessary mediation functions in case of potential challenges such as unavoidable delays in repayments, disruptions in the commercial operations etc.

2.2.3: Developing the Financing Model

To help develop a sustainable agricultural value-chain financing model that will enable concise targeting and improve the impact of its portfolio, Centenary Bank undertook a systematic study value chains, identify actors and activities to finance, quantify off-taker interests and evaluate the roles they can play, and assess progress and lessons learnt.

a) Mapping the selected value chains. Based on previous and on-going financial services of the Bank to the agricultural clients and research outputs, such as value chain analysis reports, the Bank has been able to prioritise key agricultural value chains for financing under the proposed off-taker partnership model⁴.

For the selected value chains⁵, the imperative has been to adequately understand the transactional mechanisms and characteristics of the value chain actors, with focus on off-taker linked transactions. This has included ascertaining information on the nature and types of linkages and embedded linkage support initiatives; geographical targets and outreach; volume of transactions for a defined period; timing of transactions; and the terms, sizes and stability of the terminal markets. By adopting a market systems development approach for the actors in the commodity

supply linkage, the mapping is a strong tool that enables deeper understanding of the commercial activities and the transactional mechanisms and terms between the actors. It also espouses the nature and magnitude of risks and costs of financing the different actors in the off-taker linked transactions.

Furthermore, the mapping helps to determine the off-taker linkage relationships as well as the value chain transactions that are not directly handled but support off-taker transactions, such as input supply, primary trading and delivery to the final market. In essence, the mapping serves as a market analysis with a financing lens focused on off-taker linkages and efficiency and gaps in the functioning of these linkages.

b) Determining potential actors and activities for financing through off-taker partnerships. Through the mapping activity, the actors in the off-taker linkages are identified, including the types and terms of the transactions they engage in and their organisational set ups. The major focus is on the actors or market players on whom the financing mechanism should be anchored, with a view to minimising delivery cost and risk⁶ while tapping available financing opportunities and their embedded rewards.

For example, with the coffee value chain, emphasis is on processors/exporters and their linked suppliers, such as the farmer groups or primary cooperatives and medium scale farmers and traders who are in turn linked to the coffee processor or exporter as their markets. Similarly, for the dairy sub-sector, emphasis is on big bulkers, such as the secondary dairy cooperatives, the dairy processors, and the primary dairy cooperatives who are linked to small-scale dairy producers through their milk collection centers (MCCs).

The linkage arrangements spell out parameters through which transactions are handled, such as delivery points, payment terms, and other support units such as for extension services and provision of inputs and materials

etc. Although such arrangements could be strengthened by formal contracts, these are basically non-existent, with the linkages mainly premised on the goodwill and trust of the parties as contracts are complex legal processes that scare away potential participants.

Besides the mapping of the target off-taker linkage actors, the process also ascertains the key activities of these actors and their timing and tenure that potentially drive the demand for financial services. These are diverse and include operational/working capital, assets such as for processing and cold chain equipment, bulking, storage and transport, as well as household financing needs that manifest prior to realisation of sales proceeds. It thus helps to generate a broader spectrum for short, medium and long-term financing opportunities.

The other beneficial outcome of this approach is that also helps establish potentials for aggregating demand for various financial services, such as for input supply, asset acquisition for multiple actors such as MCCs, as well as mechanisms for structured disbursements to suppliers and service providers. It also enables the locking of recovery of credit to the target beneficiaries from the partnering off-takers and their linked buyers such as exporters. Where SACCOs are integral components or entities in the off-taker linkage transactions, these can also provide opportunities to channel financial services to the value chain in some form of linkage banking.

Ascertaining the off-taker interest to engage in financing partnerships. This is a crucial task that should help to ascertain the existence of qualified demand for financial services by the linked actors for given linkage operational and transactional requirements. It is thus underpinned by the need to establish the actual interest of the off-takers to engage in formal partnerships that should be informed by the embedded benefits that may be realized by the parties and beneficiaries, for a win-win outcome or impact. It therefore provides the opportunity to discuss the expectations, roles and obligations of the respective parties, as well as any inherent challenges and

mechanisms to manage them, including through support by other stakeholders. It should therefore help to establish a higher-level common understanding that should foster the effective outreach for the bank's financial services to the target beneficiaries in the linkage. In essence, this initiative should enable the off-takers to create an additional and complementary linkage for financial services, besides that for commodity flow, thus dual linkage.

c) Establishing the role of off-takers in linked farmer financing arrangements. Critical for the success of credit for the linked farmers, the partnering off-takers will play key important roles under MoUs with emphasis on timing and turnaround time. The key roles of off-takers include:

- i. Screening and partial appraisal of the financing requirements of their linked farmers in terms of relevance, adequacy and how they match the requisite repayment capacity.
- ii. Aggregating or pooling the financing needs of farmers for specific requirements, such as agro-chemicals, veterinary drugs, supplies, milk cans, milking buckets, farm tools, tarpaulins etc.
- iii. Centralising procurement, where appropriate and applicable, to realise the benefits of economies of scale of bulk purchase and better term, such as price discounts, delivery at the cooperative stores, assured quality, timely delivery, payment after delivery etc., as well as ensuring a judicious process of vetting and contracting the suppliers that should underpin good quality and reliability of supply. Under this arrangement, disbursement of loans would be directly to the vendors contracted by the cooperatives/off-takers as may be agreed in the purchase order, and especially after off-taker's confirmation of delivery of the items by the supplier.
- iv. Making recommendations for farmers to the partnering bank and providing the facilities for the bank to meet them to handle financing requests, thereby minimising the outreach costs for the bank

- and being able to conveniently reach larger number of potential clients.
- v. Undertaking follow-up of farmers that have accessed credit, including monitoring their performance at their farms and in output deliveries to the cooperative/off-taker. This should counter attempts to side-sell through non-cooperative channel to evade the payment of credit.
- vi. Ensuring that payment of proceeds for the produce of farmers accessing loans is channelled through their accounts held in the Bank, to enable “locked recovery” of the loans and cross-selling opportunities for the lender. This may warrant providing *letters of intent* by off-takers.
- vii. Collaborating on the planning and delivery of non-financial services, such as financial literacy training and corporate social responsibility initiatives.

d) Progress in implementing the Centenary Bank off-taker financing model. To assure progress in implementation of the Bank’s financing scheme, there will be need for concise memorandum of understanding with off-taker partners, further refining of the product model and exploration of areas for further collaboration.

Concluding off-taker partnership MoUs. The partnership Memorandum of Understanding (MoU) should provide a broad framework through which the Bank collaborates with off-takers to provide specific financial services to the linked actors (farmers, farmer cooperatives, traders, private primary processors etc.), including highlighting the roles and obligations of the respective parties.

All the parties in an efficiently managed off-taker financing partnerships should realise win-win outcomes. The farmers should access the desired financial services at lower cost and with higher convenience. In addition, farmers should access lower cost and timely delivery of requirements, in case of centrally procured items that are enabled by credit. The bank would deliver the financial services to larger numbers of clients at lower cost, lower

risks as well as cross-sell other financial services to target beneficiaries. Also, the cooperative/off-taker would benefit by increasing the volume of its operations as well as enhancing the loyalty of its linked suppliers by enabling them to easily access needed financial services and strengthen the reliability of their linked markets.

Refining the product for the model. The bank will focus on realigning and tailoring the terms to match the characteristics of the transactions of the target beneficiaries (including disbursement and recovery mechanisms, as well as reviewing and adjusting the procedures and processes to enhance the efficient delivery of the product. In addition, efforts will be made towards training of staff on the scheme and its procedures, and focus staff for the financing scheme will be identified and assigned.

Potential for collaboration. Centenary Bank hopes to establish its existing and potential cross-cutting collaborations with off-takers and other entities whose mandates align with the objectives of the scheme. Existing and potential entities (for the current commodity focus) include Agricultural Business Initiative (aBi), USAID Feed the Future Projects, FSD (U), Uganda Cooperative Alliance (UCA), Uganda Coffee Development Authority (UCDA), Dairy Development Authority (DDA), National Agricultural Advisory Services (NAADS), Heifer International, SNV and Fair Trade institutions. Collaboration for financial services deepening and delivery support will also be important, and will help to step up and deepen impact, and further reduce cost and risks.

2.2.4: Highlights of Opportunities to Finance Value Chains through Centenary’s Off-taker Partnerships

A wide scope of commercial financing opportunities, spanning short, medium and long term needs, for various value chain levels that are anchored by qualified demand were analysed for the proposed off-taker partnerships financing model. This also enabled projections to be made

of the transactional cash flow volumes and patterns, as well as their timing. The opportunities are elaborated below.

a) Linkages with inputs (and other assets) suppliers. The possible linkages include with those directly selling production inputs, tools, equipment, and sundry items to off-takers (for example farmer cooperative inputs shops/units) for subsequent sale to the farmers. It also includes linkage with those selling items like cooling equipment for MCCs, trucks, coffee hullers and pulpers etc. directly to the farmers and farmer groups/cooperatives through off-taker links and referral. Linkages provide opportunity for aggregation of demand through collective procurement, for input and asset financing, and for structuring disbursement and recovery of loans; and should therefore enable the realisation of low-cost and low-risk financing for the value chain transactional level.

b) Linkage with farmers. Linkage with farmers is majorly for supply and marketing of production outputs, where off-takers buy and market produce supplied either directly by the linked farmers or farmer groups/cooperatives under formal contract or even otherwise. For example, the formal milk marketing channel is principally operated on off-taker linkages either through dairy farmers' cooperatives and unions or through major private dairy processors such as Jesa Farm Dairy, Amos, Brookside and Pearl Diaries. Similar arrangements are being used for coffee where coffee cooperatives, unions, private coffee secondary processors and exporters play a key role. Thus, a proportion of the marketing transactions in the two value chains conform to the linked off-taker mechanism.

The off-takers targeted for establishing financing partnerships with the Bank include processors, exporters and other terminal actors, encompassing farmers' cooperatives, unions and private actors. The opportunities for financial services for this linked transactional level include the following:

(i) Aggregation of demand by off-takers for farmer

financing of production (i.e. inputs, hired labour and services, and other related logistics such as storage, haulage and primary processing), and non-farm household income smoothing financing needs such as for school fees, medical expenses and social needs. This provides the highest potential for financing, given the large number of actors with diverse financing needs category, whose repayment is pegged on proceeds from their marketed output. The financing gap for this category is principally responsible for pre-harvest selling and resorting to high-cost borrowing from money lenders by the farmers.

- (ii) Working capital needs for farmer groups/cooperatives to aggregate produce at harvest for onward sale to linked buyers/off-takers, as well as for postharvest value addition such as primary processing, hiring services and haulage cost to the buyers. It is also important for stocking adequate inputs and supplies for the input shops for the primary cooperatives where they exist.
- (iii) Other financial services such as for savings, payments and transfers, mobile wallets, etc.
- (iv) Financing farmer organisations such as SACCOs where they exist under the linkage transactional relationships for subsequent intermediation to their members.

Essentially, financial services should help to overcome the burden of off-takers shouldering the risk of credit to farmers through financial institutions or own resources for inputs, and pre-harvest advances. In addition, they lessen the risk of holding and transiting large sums of cash by the off-takers for paying the farmer suppliers. The overall assessment is that many off-takers are desirous of engaging in the proposed partnerships and the farmers are enthusiastic about the model's embedded potential benefits.

c) Off-takers. The opportunity for off-takers in this scheme is necessitated by the delegation to them provision of previously centralised financing needs of

borrowers such as: i) purchase of equipment, such as milk coolers, coffee hullers and standby generators, by main cooperatives and unions for the MCCs, primary cooperatives and farmer groups; ii) provision of logistics such as for storage, processing and haulage (insulated and open trucks); and iii) and provision of working capital requirements for both produce (for advance and direct supplies) and inputs where the off-taker engages in supplying such inputs to the linked farmers and paying service providers such as for transport and rented facilities. Advantage is also gained by off-takers through digital operations for financial services such as payments and transfers to suppliers.

2.2.5: Adapting the Financing Schemes for Centenary's Off-taker Partnerships: Pathways Informed by Assessed Financing Opportunities

From the opportunities outlined in the preceding section, the key channels through which the financial services outreach can be pursued through farmers directly or through cooperatives as off-takers.

Direct farmer financing. Off-takers know and have clear record of their farmer's supply operations and financial service needs, including volume and timing. These are relevant for effective appraisal and structuring of financial services to offered. For this category of target beneficiaries, three options are feasible:

- a) Individual credit for interested linked farmers but under clear coordination and collaboration with off-takers, where the off-takers play a key role of mobilising the prospective clients, aggregating their demand for financing, and recommending them to the bank for processing of their financing requests. The farmer borrower takes personal responsibility for the borrowing and signs an independent loan agreement, and the off-taker only undertakes an intermediation role but commits to remitting sales proceeds for the borrower through the bank. In this way, farmers take full ownership of their financing

obligations as opposed to when a cooperative borrows on their behalf. This approach enhances farmers' understanding of the financial services processes, including credit access requirements and financing terms, and enables them to build sustainable relationships with the bank.

- b) Financing through farmer cooperatives/off-takers where the cooperatives take responsibility for borrowing and disbursing credit to farmer members whose loan requests are approved, as well as recovering the credit from the beneficiary farmers' sales proceeds for repayment of credit accessed. The cooperatives, working with the bank, engages in active appraisal of the financing needs and repayment capacities of their members. This option is, however, least preferred by off-takers because of the risk of default by beneficiary farmers who fail to deliver their produce to the off-takers despite their established creditworthiness and capacity to meet credit requirements.
- c) Financing through SACCOs of farmer cooperatives where they exist and are assessed to be effective in intermediating and recovering credit. Even in this situation, off-takers still play a key role of assessing individual farmer's financing needs and recommending credit levels, as well as ensuring the recovery loans from proceeds of a farmer's produce sales.

Financing off-taker cooperatives. As highlighted in the previous section, farmer cooperatives have clear operations that merit direct financing of them to deliver requisite services and support for their farmer members. In such case, the financial services should target the following key areas:

- a) Working capital for financing crop production, bulking and marketing, for related logistics, such as storage, transport etc., and for stocking input shops/units where they exist.
- b) Financing assets, irrigation equipment, spray races, motorcycles and light trucks etc., under centralised procurement for linked suppliers, such

as primary cooperatives and individual farmers, as well as for the operations of the off-taker, such as for processing, cold chain, haulage etc.

- c) Financing expansion of operations and/or overhaul requirements.
- d) For other financial services, such as transfers and payments to their suppliers, letters of credit, contract performance bonds etc.

It should be noted that many private off-taker firms (medium and large) are principally not constrained in accessing financial services, as they easily fall in the category of corporate clientele and are thus favoured targets of both local and international financiers. Such off-takers are not priority candidates for Centenary Bank's proposed model, except where they may have firm interest to support their linked suppliers to access financial services.

2.2.6: Challenges in Financing of Commodity Off-taker Partnerships and Way Forward

Despite the enormous potential presented by the off-taker linkages in scaling up financial services offering to agribusiness actors, gaps still exist that merit further policy alignments and further technical assistance for both the financial institutions and the commodity off-taker linkage actors, some of which are examined below.

a) Off-taker contracts. For enhanced delivery of financial services under the off-taker partnership model, transactional contracts are a highly useful tool for incentivising lending. This is because contracts provide a clear means of minimise risk, through guaranteeing markets, realising transactional proceeds, and immunising against side-selling. This, however, is bound only to occur when the contract is underpinned by inbuilt high-performance trust and vested interest amongst parties to meeting their commitments. In addition, the contract should have enforceable sanctions for non-performance. In reality, the existence of weak contractual arrangements in off-taker linked transactions dilute the efficacy

potential of this tool; and the "goodwill-premised" contractual arrangements tend to lower ratings of lenders' asset quality. This is particularly important in light of the competition for products, and thus the proliferation of many intermediary buyers in the target value chains that provide fertile ground for pre and side-selling outside agreed contract. This applies, in particular, where it is easy to exploit the weakness associated with the lead time between delivery of product and receipt of proceeds common with off-taker cooperatives.

b) Institutional weaknesses of farmers' cooperatives (off-takers and suppliers). Issues of management and governance deficiency, including weak business plans and constrained outreach efficiency for mobilisation and extension support, are common among target value chain actors. To a degree, these impede the credit worthiness and bankability of these entities. In addition, the digitalization of actors and their transactional data in the off-taker linkage is very important in helping to bridge the information asymmetry gap. Also, financial literacy training of linked suppliers to raise their awareness on the benefits of financial services through off-taker partnerships needs to be prioritised.

c) Collateral challenges. The volume of transactions justifying financing under off-taker model is significantly high. However, the would-be target beneficiaries of credit, especially cooperatives, are constrained by inadequate collateral, the viability of their transactions, and certainty of realisation of adequate proceeds. These are recognised as major reason for the not-so-good working relationships between off-takers and financial institutions that must be persistently pursued.

d) Financial products. Without proper and appropriate tailoring of financial products, including structured disbursement and locked recovery, the mindset about risk and cost for agribusiness credit will remain. Therefore, product development and/or refinement is a necessary condition for ensuring successful financial services delivery under the off-taker partnership model.

e) Commodity coverage. The Centenary Bank model is at best a pilot under test, and the three commodities covered constitute a very small proportion of the prospective commodity value chains with active off-taker linkage arrangements. This gap offers huge opportunities for scaling up the model, so additional value chains need to be mapped and analysed to help deepen the envisaged impact of the model.

f) Moral hazard. Moral hazards are associated with the perception of the financial partnership as a sanitizer for risk, thus predisposing it to laxity. Parties and beneficiaries must play their roles and strive to meet their obligations under the partnership, including holding regular dialogue on issues related to the financial services accessed, as well as on appropriate modifications to enhance efficiency and broaden outreach.

g) Production and market risks. These risks are linked to adverse weather, diseases and market volatilities that characterise many agricultural commodities. This should be addressed by enhancing the availability and ease of use of a complementary agricultural insurance scheme⁷ and other risk-sharing initiatives such as credit guarantees.

Broadly, under this agricultural financing initiative, the Centenary Bank and IPC sought to establish and prove a value chain financing concept to provide financial services through strategic partnerships with off-takers that are linked to identified suppliers. The concept thus seeks to demystify and overcome the typically perceived risk and cost associated with financing smallholder farmers and agri-MSMEs that is often perpetuated by asymmetric information.

From this analysis and the enumerated tasks accomplished Centenary Bank and its partners, it is clear that the off-taker partnership scheme offers high potential for banks to realise low-risk and profitable portfolio in mapped value chains, and enable banks to on-board smallholder clientele. The key tenet for the success of this model is

the proper understanding of the realisable benefits by the parties engaged in the partnership as well as by the target beneficiaries, including smallholder farmers, through win-win engagements and enhanced efficiency and competitiveness of the implementers and beneficiaries.

Endnotes

- 3 Implemented by Internationale Projekt Consult GmbH (IPC)
- 4 Initially coffee, dairy and maize (but also having an on-going similar initiative for tea)
- 5 Underpinned by large mass of actors, high level of transparency by the actors and fairly documented transactions
- 6 It is important to note that different transactional mechanisms in given commodity value chains present unique dimensions of risks and costs of financing the actors engaging therein.
- 7 The existing Uganda Agricultural Insurance Scheme (UAIS) is currently focusing on the production risk

2.3 MANAGING BORROWERS' RISKINESS TO IMPROVE EFFICIENCY IN AGRICULTURAL LENDING: THE CASE FOR FINCA'S CREDIT SCORING INNOVATION

Alice Lubwama¹



2.3.1: Background

Agricultural lending comprises availing of short, medium and long-term loans for crop and livestock production, and produce processing and marketing. Financial institutions consider lending as a fundamental area of their operation. However, while this activity generates the largest revenue it is also burdened with the highest risks that lending institutions must constantly guard against and undertake various actions to minimise. Key characteristics of high risk borrowers include poor cash-flow management and credit repayment records, lack of measures to address the challenges of geographical location and unpredictable seasonality, as well as high levels of indebtedness.

For FINCA Uganda as a financial institution in Uganda, credit scoring is a key innovation that the organisation has adopted to limit credit risk, based on a standard assessment of the future solvency of a borrower. Credit scoring is a method of assessing the amount of credit risk of a customer who applies for a loan based on historical

data and various statistical techniques designed to distinguish the impact of individual characteristics of applicants that significantly affect the timely payment of their obligations (Kil *et al.*, 2021).

Before credit scoring, financial institutions evaluated credit using various methods and credit reports from Credit Bureaus, until the late 1950s when they started using computerised credit scoring to redefine creditworthiness as abstract statistical risk (Lauer, 2017). This method generates a number called a “credit score” by means of which the financial institution can easily classify applicants or borrowers into groups showing different levels of risk. An effective scoring model is built using historical data on previously granted loans, and on key features that help in predicting the repayment ability of the borrower. Statistical models have improved the accuracy of credit decisions, and have made lending more cost-efficient (Emel *et al.*, 2003). They have also enabled financial institutions to make key decisions throughout a customer lifecycle.

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In October 2014, FINCA piloted credit scoring with Compuscan Credit Reference Bureau in Uganda, and partnered with aBi Finance Holdings Limited to access additional funding support to evaluate it in the agricultural financing space. This facilitated pilot testing of the credit scoring decision engine and upgrade of a solution to increase access to credit through microloans. At the time, no financial institution in Uganda had yet considered or embraced credit bureau scoring. From May 2015 to February 2016, FINCA again ran a pilot project on new application using Compuscan's Compuscore and CODIX Decision Engine.

The credit scoring approach, with automated credit decisions, facilitated FINCA in making more sound credit decisions and improved turnaround time on new loan approvals. This enabled gradual rolled out of the system to FINCA branches in the country. The experiences gained, progress made, lessons learnt, and prospects and challenges in use of credit scoring by FINCA are reviewed and discussed in this article.

2.3.2: Piloting FINCA's Credit Scoring Product

For this first generation of credit scoring, the system and processes were kept simple and effective although generic to all borrowers no matter the industry and business sector. During the piloting phase, loan applications took place at the branch involving the steps below.

- **Step 1:** A loan application by the customer takes place at the branch, and bureau inquiry is made to Credit Reference Bureau (CRB) supported by a Loan officer.
- **Step 2:** A bureau score is calculated through the decision engine and set of policy rules is applied.
- **Step 3:** A credit report is returned to the branch in pdf form.
- **Step 4:** The branch credit management committee makes a decision based on the score feedback, and the loan request is rejected or approved in line with the credit policies and procedures.

Benefits registered in the piloting phase. These included., enhanced staff confidence in credit scoring due to the training received, upgraded core banking system, establishment of integration infrastructure and development of in-house segmented behavioral scorecards and scores' repository were developed leading to a rollout to improve automated decision-making. However, credit scoring did contribute to a faster growth in outreach for FINCA during the period 2019-2021 especially for repeat borrowers.

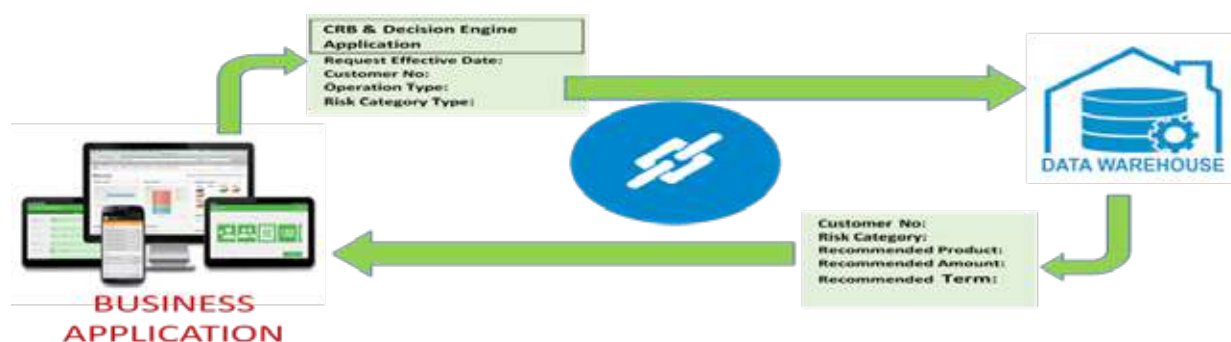
Despite all the above benefits, credit scoring benefits, comes with a financial investment cost especially during the development, implementation, and maintenance of the scoring tool. In addition, the innovation has a social cost, requiring detailed specifications of vulnerable groups such as women, youth, migrants, refugees, and other marginalised groups to be considered in the developed scorecards.

2.3.3: Implementation Structure of FINCA's Credit Score Product

The operation of FINCA's credit score innovation differs slightly between existing and new borrowers.

a) Credit scoring application for existing borrowers. In order to have an effective credit scoring model, there needs to be a well-developed score card hosted in a decision engine (Figure 22). The decision engine hosting can either be internally supported by the local server management system or be outsourced. The decision to outsource or internally host the decision engine application varies per institution based on associated investments and funding source.

Figure 22: Structure of FINCA's credit scoring Innovation

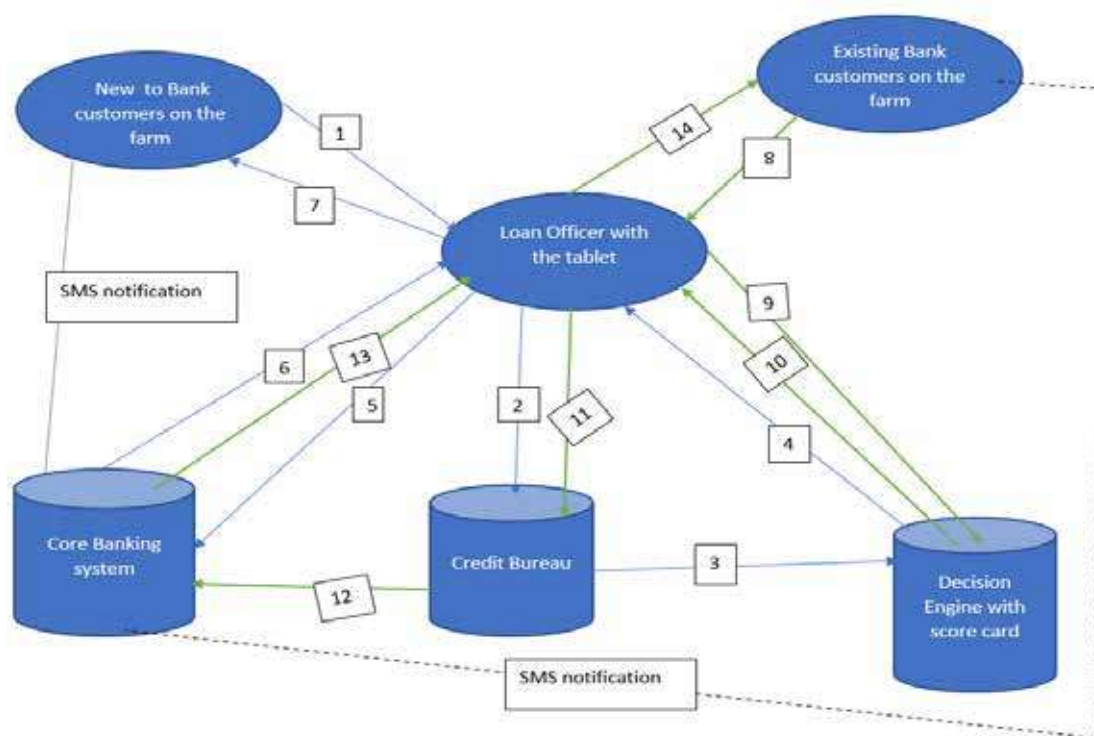


Source: Author's construction

Data is collected either digitally or manually from a borrower (Figure 23) at different touch points, i.e. loan officer, customer support center or self-help digital tools, and fed into the decision engine for analysis of the data to obtain a final credit score number which determines whether the borrower qualifies for a certain loan amount upon which disbursement can be triggered. This is a quicker way of determining which firm or customer's business may be a "high risk borrower" or "borrower most likely to default" from among the many loan applications presented.

The digital data collection application tools have pre-determined parameters installed on a mobile device, such as a tablet given to the loans officer, and the loan officer moves into the local community to collect data from farmer loan applicants. The personal data collected include customer bio data, loan purpose and amount details including the collateral type (if any), and business/farm data. In this regard, an agribusiness customer will have business features that are different from customers involved in other businesses such as trading, input supplies or produce buying.

Figure 23: Implementation structure of FINCA's Credit Scoring- New and Existing Customers journey



Source: Author construction- System journey map for new and existing customers.
 Blue arrow: 1-7 Journey for new clients to Bank:
 Green arrow 8- 14 Journey for existing customers

The field data collection tools are further connected to the credit reference bureaus and core banking systems through Application Programming Interfaces (APIs) to obtain external data regarding the performance of a customer's previous loan obligations and current credit status. These data are then fed into the decision engine through the API where it is processed to obtain a final score that determines whether to lend, refer, or reject an application.

To ease the loan application process, the financial institution sets the loan amount that can be disbursed automatically to a customer based on the credit score, or that calls for further authorisation through process flow automation which involves the steps outlined in Box 1 below.

Box 1: Steps of the process flow automations

Step 1: A repeat or existing customer (saver or borrower) request is sent to the FINCA integrated decision engine to assess whether the customer qualifies internally as per scorecards' specifications.

Step 2: A response is sent back to the designated FINCA officer for confirmation of the risk ranking which ranges between scores, 1- 5.

Step 3: The assessment process automatically continues by sending a request to the credit reference bureau (CRB) to achieve the normal regulatory obligations of all credit applications going through the bureau for a credit history "footprint".

b) Credit scoring application for new borrowers.

In the operation of the credit scoring, new to bank customers (Figure 23), go through the full assessment by FINCA officer before submission is made to the Bureau, it is upon the data submitted to the decision engine that a final score for the next stage of the application is determined.

For a better customer experience and turnaround time, the credit scoring application journey for new bank clients is separate from the existing customers.

2.3.4: Pre-requisites in Operation of the Credit Scoring Innovation in Uganda

Based on FINCA's an effective adoption and use the credit scoring system requires heavy initial investment, mastery of complex statistical models, embedded capacity for upscaling, and safe integration with external data sources.

(i) **Heavy initial cost.** From project inception, FINCA invested over USD 400,000 to deepen the credit score financing mechanism over five years. Besides initial financial costs, smooth running of the innovation requires having in place a competent technical team, and picking a credit decision engine that is compatible with existing core banking systems to ensure long-term sustainability. This level of initial investment is not tenable for many financial institutions without external funding support.

(ii) **Complex statistical models.** The statistical models used in building credit scores can be complex and time consuming, and takes a step-by-step approach to build, test, fine-tune and apply the model for lending decisions based on a company's growth goals and risk appetite. Success requires sufficient level of in-house expertise in advanced data analytics, or heavy investment in external consultation services given the scarcity of such expertise/resources in Uganda.

(iii) **Scalability of support systems.** For sustainability, financial institutions need to have scalable support systems or credit decision engines that can implement multiple scorecards with specified parameters and with the ability to create logic paths that determine which scorecard is used. In addition, these systems should have the ability to set cut-off limits according to scores, such as scorecard for new customers with bureau information; scorecard for new agricultural customers; or scorecard for "thin file customers" (i.e. those with no

data on any specific reference bureau).

(iv) **Safe integration with data sources.** Given the need to utilise external data sources, the scoring decision engine should be able to safely integrate with other data sources/data files, including credit reference bureau servers; front-end systems of branches/service points; mobile/tablet applications; national identification database; core banking systems; and other utility databases. All information captured from front-end credit reference bureau and other results of the credit strategies followed in the decision engine should be stored/saved in separate databases. All these processes require significant financial and human resources investments.

2.3.5: Benefits of FINCA's Credit Scoring Product

As a general application in business financing, credit scoring offers multiple benefits at every level of the economy, and can enabled lenders to extend into historically underserved market segments, such as economically active refugees in agriculture, with great reduction of risks through screening. Use of the credit scoring platform has helped FINCA tailor loans to specific need categories, reduce loan processing time, reduce delinquencies and defaults, and to reduce cost of underwriting loans and have improved cost of financial products and overall operation of this financial institution.

Since its introduction, credit scoring has played a critical role in not only enabling FINCA to extend credit to market segments that would be otherwise underserved, but also improve screening out of potential high-risk borrowers, hence reducing non-performing loans and saving the banks' capital. Between 2020 and 2022, with the credit scoring, FINCA screened out a total of 1,830 high risk borrowers, saving the institution UGX 11.9 billion worth of bad loan advances (Table 3).

Table 3: Value and number of high-risk borrowers screened (2020-2022)

	Number of High-risk borrowers	Value of High-risk borrower (Million)
Sep-20	252	1,906
Dec-20	128	899
Mar-21	198	1,060
Jun-21	196	1,311
Sep-21	788	5,583
Dec-21	115	576
Mar-22	81	347
Jun-22	41	195
Sep-22	31	71
Total	1,830	11,952

Source: Author's compilation from portfolio analytics period ending September 2022

In addition, credit scoring has made lending decisions faster and more equitable. Even significant lending decisions can now be made in a matter of hours rather than days or weeks as before. At FINCA the agriculture customer approval process has improved from approximately 10 days of field and desk assessments to 5 days (-50%) for new clients, and from 7 days to 2 days (-71%) for repeat clients. This has made the borrowing process very convenient to clients, thus attracting more borrower. Because credit scores enabled FINCA to predict risk, it has reduced "premium" for potential credit loss, with the interest advantage passed over to customers.

Cost of underwriting and loan design. By using credit scores to predict risk more effectively, FINCA has been able to reduce the cost of underwriting and ultimately the cost to design and delivery scored lending products to the advantage of economically active customers. Given the expansion into traditionally underserved markets with use of credit scoring, FINCA can proactively monitor risk and maintain it at levels that are more appropriate. Besides increased accuracy and predictiveness, credit scoring has also enabled FINCA to evaluate risk constantly and to make timely corrections. For the past two years, the quality of scored loans at FINCA allowed for disbursement

has reportedly been 94 percent better than the quality of unscored loans in terms Portfolio at Risk (PAR) past one day.

Lowering price of financial products. Using credit scoring, FINCA has been able to make fast, accurate, and competitive loan decisions, thus processing far more customer applications and expanding access to credit for prospective borrowers in agriculture and non-agriculture sectors of the economy. In addition, it has enabled the fair pricing of financial products especially loans, through risk-based pricing; and has enabled offering lower credit interest rates to agriculture customers scored as “low risk” than otherwise offered to customers with “medium” to “high risk” rankings. Without objective credit scores, it is much more difficult to price products as this is done according to individual assumptions of risk levels.

Reducing delinquencies and defaults. Credit scoring has also enabled FINCA loans officers to use objective scores to negotiate better with customers regarding loan sizes/amounts and repayment terms, and to assess and manage the possibilities of customer default on repayments due to debt burdens on their business returns within given periods. This has enabled FINCA to lend to many smallholder farmers to whom lending would have been too risky without this systematic assessment approach. Repeat borrowers have particularly appreciated the credit scoring approach after full sensitisation about the different credit scores and their influence on future access to credit. This has enabled many to keep in check and on track with their loan repayments thus reducing default rates.

2.3.6: Challenges in the Use of Credit Scoring Innovation for Credit Appraisal

Use of credit scoring and scorecard innovation in financial management being quite novel in Uganda, FINCA has registered various use obstacles and challenges for its loan application processing and management in the country. Having been originally designed in financial environments

far different from Uganda’s lending environment, the challenges faced in its application include, uniquely, borrower ignorance and fear of the unknown, privacy, and lack of business records. There will therefore be need to continuously adapt and improve the system based on use and experiences gained.

(i) Lack of scorecard flexibility. Because of its framework, use of the scientific score algorithms has sometimes been unintentionally discriminatory against potential borrowers with unique circumstances different from the rules set out in the algorithms and policy rules. During the COVID-19 pandemic lockdowns, for example, many customers were flagged high risk and recommended for rejection by the credit scoring because the system had not provided for such exceptional lockdown situations. In other cases, customer rejection may occur under exceptional circumstances, such as lack of records that suggest poor performance, fraud or emergencies that are better evaluated through human loan decisioning. Also, an application of a client who produces crops will not be the same as that for a client engaged in livestock/animal farming when being scored. Considering FINCA’s loan portfolio, annually 25 percent of the borrowers are dropped due to high-risk ratings by the scorecard and these differences affect scorecard-based decisioning. This has necessitated frequent review of the credit scorecard system management data analytics teams.

(ii) Inadequate borrower information. In light of the above, timely servicing of targeted market without a framework of evaluating its dynamics can be a challenge. This is true especially with the lack of sufficient application data on segments targeted, limited alternative data range repositories, and regulatory restraints related to data access and sharing.

(iii) User acceptance and management of change. The use of complex credit scoring algorithms results into lack of clarity, and usually users who do not understand the backend variables and policy rules develop suspicion and resistance; yet explaining to clients and some

categories of staff auditors the credit score and resulting credit decision whenever is generally difficult. Although specialists conduct training of staff at implementation, a lack of understanding and interpretability of credit scoring operations has the potential to undermine uptake and lead to poor performance if the change management process is not appropriately executed.

(iv) Excess exposure of personal data. Customer identity, Know-Your-Customer verification and credit reference bureau applications that are prerequisites for borrowing clients require exposure of all personal information. This puts individuals at increased risk of experiencing identity theft (Leimgruber Meier and Backus, 2018). It was realised at FINCA that the more exposed agriculture rural clients felt, the more they questioned the authenticity of the process and the more insecure and reluctant they became to release their personal information. This fear was cited as a key reason in the delay by some customers accepting financing when FINCA credit officers equipped with the digital field automated tablets approach them in the field for credit appraisal.

(v) Consumer protection. Consumer protection encompasses rights of consumers, fair trade, competition and accurate market information and protection of the vulnerable in society against discrimination. With this, the Bank of Uganda and other regulatory bodies are expected to conduct constant review of mechanisms and frameworks used by financial institutions to access and collect a wide variety of information and personal data for effective credit scoring without undue exposure to data security risks. In its development, FINCA was required to integrate data privacy into the design process of credit scoring methods. While privacy clauses did affect the innovation at the stage of development of the tools and subsequent assessments, later, the consent of customers had to be sought to proceed with the development of the scorecards and the financial institution had to ensure that personal data were not used unlawfully. The need for further protection of the privacy and security of personal data poses an infrastructure challenge in terms of

requiring additional investment in specific selection and acquisition of the appropriated infrastructure.

(vi) Model governance. Scarcity of personnel with required skills and knowledge to support and manage the credit scoring system with proficiency pose challenges to FINCA, other financial institutions and regulators in understanding and supervising the developed models. Beyond the staff handling applications for credit scoring and decision engines, FINCA learned that key operations control functions such, as risk management and internal audits, should be adequately prepared to control and manage use of innovative models within the credit system.

(vii) Learning curve maturity. In spite progress made, maturity of the technology, skillsets, infrastructure or use applications and processes of credit scoring by FINCA and others are still work in progress in Uganda. The tendency and preference is still to rely on traditional credit underwriting methods and human touch judgement processes which is a concern and demands change in management strategy to facilitate implementation. However, the talents and data infrastructure required to execute the more innovative approaches is still very limited in Uganda.

2.3.7: Policy Recommendations and Way Forward

Based on its application by FINCA in Uganda, credit scoring has immense potential to improve loan application turnaround time and enhance loan portfolio growth, and is a valuable tool for standardisation and entrenching efficiency in loan workflow processes without human prejudices. It is critical that financial institutions, Fintechs, and the Central Bank work together to spread these benefits in the country, and to further develop positive aspects of the innovation while at the same time managing risks and challenges. Keeping the customer and users at the centre of innovative credit scoring methods will help foster trust and build consumer confidence.

The advantages and opportunities that credit scoring use include; greater financial access and inclusion, automation of processes, improved accuracy of product models, and enhanced consumer experience. In addition to supporting quick and accurate credit decisions, credit scoring allows financial institutions to monitor, on an ongoing basis, the exposure of credit portfolios. To deepen agricultural lending in Uganda based on the credit scoring innovation, the following are necessary:

(a) A robust data storage and sharing framework must be established to supporting designing, developing, deploying and using credit scoring methods. Government should accordingly support the establishment of technologies for data storage and sharing, including opening accessibility of private entities to the national backbone infrastructure and national data centre, to reduce the cost of data transfer and cloud storage. Relatedly, Government should open up entry integration barriers with the National Identification and Registration Authority data base to facilitate digital client verification and application scoring mechanisms.

(b) Efforts should be made by industry players, government entities and FinTechs to establish and develop reliable and integrated alternative data landscape. This requires organising and digitalising databases, and enacting enabling data and technology sharing laws to facilitate alternative data sourcing and integration of data sources, including Teco Data, Non-Bank Data sources, E-commerce data sources, tax payments data, insurance data and utility company data. Government should also ensure interoperability of credit reference bureaus and their ability to integrate the alternative data sources mentioned.

(c) The Bank of Uganda should institute certification of and enhance routine examination of credit scoring systems for compliance monitoring and advisory purposes. The rapid increase in the number of Fintechs and digital financial products and services that leverage credit-scoring calls for proof of robust credit scoring

system that is regularly reviewed and validated through governance processes. The Bank must also ensure that financial institutions using the credit scoring tools must be compliant to provide assurance of effective control over credit risks.

References

- Emel, At B., Muhittin, O, Reisman, A and Yolalan, R., (2003). A credit scoring approach for the commercial banking sector. *Socio-Economic Planning Sciences* 2: 103–23. Accessed at http://people.sabanciuniv.edu/atilgan/FE500_Fall2013/16Nov2013_RehaYolalan/SocEconPlanSci2003_CreditScoring.pdf
- Kil, K. Radosław, C. and Chrzanowska, J., (2021). Scoring Models and Credit Risk: The Case of Cooperative Banks in- Poland. *Risks* 9: 132. Accessed at <https://doi.org/10.3390/risks9070132>
- Lauer, J., (2017). Creditworthy: A History of Consumer Surveillance and Financial Identity in America. Accessed at <https://www.jstor.org/stable/10.7312/laue16808>
- Leimgruber, Jesse, Alan Meier, and John Backus., (2018). “Bloom Protocol: Decentralised Credit Scoring Powered by Ethereum and IPFS.” White Paper. <https://bloom.co/whitepaper.pdf>

2.4 IMPLEMENTING E-AGRICULTURAL EXTENSION IN UGANDA: THE SOMA E-LEARNING INNOVATION

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2.4.1: Introduction

Agricultural extension services are often considered as major “enablers” for financial inclusion in the agriculture sector. In Uganda, besides availing knowledge on good agronomic practices and livestock management skills to farmers, extension services have played pivotal roles by providing smallholders with the information, knowledge, guidance and link required to tap emerging agricultural financing opportunities to improve their production, productivity, marketing and incomes, thereby reducing poverty and increasing food and livelihood security (Davis *et al.*, 2020).

Since colonial times, Uganda's agricultural extension service has been changing substantially in structure and function due to constant pressure to respond to the ever-changing production systems and needs, and adjustments in economic structures, which render old systems inappropriate (Obaa *et al.*, 2005). The situation has been exacerbated by policy reversals that are rarely informed

by critical needs assessment and experiences gained but more by political pronouncements (EPRC, 2018).

For instance, the 2001 Act that put in place the National Agricultural Advisory Services (NAADS), with statutory mandate to operate a demand-driven public-private extension service delivery approach, was never repealed by Parliament at the time of transferring all the roles of extension back to the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) under the Single Spine Extension System. In addition, the changed roles of NAADS from what were enacted to procurement and distribution of inputs, seeds, seedling etc. was not legislated to be made part of its legal mandate. As a result, NAADS faced several challenges to achieving its goal of enhancing production and productivity (*ibid*). Key among these was unregulated contracting of private agents to supply inputs without involving the National Agricultural Research Organisation (NARO) for technical backstopping and quality control, thus undercutting linkage of technology development to farmers- the end-users of agricultural technologies.

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Despite the various changes, progress in delivery of agricultural extension service in Uganda has remained inadequate (Barungi *et al.*, 2016). Not all categories of people, particularly vulnerable groups (i.e. women, youth, persons with disabilities, refugees and elderly persons), are able to access extension services due to factors such as corruption, low pay of extension agents, funding challenges and the top-bottom approach (AfranaaKwapong and Nkoya, 2015). This article therefore describes the operation, potential, progress and challenges of implementing in Uganda the innovative electronic agricultural extension platform- the SOMA e-extension product- pioneered by the Agribusiness Development Centre (ADC) to facilitate provision of extension via digital technology.

2.4.2: The SOMA Electronic Agricultural Extension Innovation

The SOMA system is an e-learning innovative solution that enables farmers, agribusinesses, students, traders, extension agents and cooperatives to have access to virtual learning services free of charge. Recognising that Uganda's high extension worker to farmer ratio (i.e. 1 to 1,800) imposes prohibitive cost in physically training farmers and, in the circumstance, is not practical to provide effective agricultural extension service without technology, the Agribusiness Development Centre (ADC) innovated a solution that is both mobile and web compatible.

The solution dubbed "SOMA" was developed in 2018 and started operating in 2019 to address some of the key extension bottle necks, namely higher cost per learning involved in farmer training, language barriers, and difficulty of accessing hard to reach areas. In these regards, developing the SOMA e-learning solution provided opportunity to bridge the gap between demand and supply of ADC technical advisory services in a cost-effective way due to the self-based learning platform design. "SOMA" in Kiswahili means "To read", which can also be interpreted as "To learn". It is a web-based e-learning portal

developed by the ADC that can be accessed via browser at the address www.soma.adc.ug.

2.4.2.1: Prerequisites for initial enrollment to the platform

SOMA is structured to offer end user farmers or interested individual access to valuable online training free of charge. For effective use or implementation, users enrolling to the platform should have basic prerequisites, particularly digital literacy, telephone number and email address, and access to internet service or smart gadgets (phone/ tablet).

(i) **Basic digital literacy.** A prospective farmer intending to enroll on the SOMA online platform should have basic knowledge on how to use a computer or smart phone. In practice, ADC will train leaders of SACCOs, farmer cooperatives etc. on basic computer and internet use. The leaders will in turn transfer the knowledge to the other farmers. As much as this approach has been effective in terms of knowledge transfer and cost, more is needed in sensitisation of farmers on digital literacy. Therefore, Government, development partners and other stakeholders need to create an enabling environment mostly by promoting internet accessibility and access to smart gadgets for the farmers and their leaders.

(ii) **Active email address and telephone number.** The SOMA platform requires new learners to submit their details at registration, including active email and telephone numbers to receive the log in details (username and password) and to ease follow up. ADC however made email entry requirement optional because most farmers do not have email addresses. Alternatively, prospective learners were advised to register with either their MTN or Airtel numbers.

(iii) **Smart gadget and good internet accessibility.** Since SOMA is an online training platform, smart phones, tablets and computers are essential in accessing and working on this web-based application. Because most farmers do not have smart gadgets, ADC has availed

temporal smart gadgets like tablets during training to facilitate their learning process. To expand and ease access, Government needs to urgently establish farmer learning ICT hubs in all regions of Uganda.

2.4.2.2: Prerequisites for wider scale implementation of the SOMA product

To ensure nation-wide accessibility of SOMA for farmers and other users and relevance and recognition of training outcomes, there is need for a wider scale implementation of this initiative with particular focus on effective delivery structure, uninterrupted accessibility and limited time down, and scope and certification of training contents.

(i) **An improved delivery structure.** SOMA has been packaged to aid easy implementation, with over 20 activations² done in 2022 in Central and Northern Region, through virtual support, one on one engagements and regular follow up with tele-sales which attracted over 5,000 users and 2,000 completions on different modules. ADC has learned that activations are still the best mode to deliver SOMA to all parts of Uganda because large numbers are reached and trained in minimal time unlike the one-on-one engagement and tele-sales follow up which take longer periods and resources.

Using activations, farmers are mobilised and reached through their organised groups, most of which are already working with ADC in most parts of Uganda. Traders are trained collectively at their different nearby business or community halls, students are mobilised through their administrative units (e.g. schools). ADC has collaborated with about seven technical and high institutions including Makerere University, Makerere Business School and Uganda Christian University, Mukono. This has given the institutions added advantage as well since some of their learning modules, especially for the agribusiness students, will benefit from this ADC digitisation programme of. This means that their materials can be uploaded on the platform thus easing access for other students.

(ii) **Wider scope of content within the platform.**

With wider content base and through availing necessary knowledge, SOMA will be one of the modern innovations that will revolutionize the agriculture sector in Uganda, given its capacity to house more content and capability to connect to other platforms through its easy application interface capabilities. Initially the platform had only three courses based on needs of different stakeholders as well as users of the platform. Feedbacks from implementation highlighted the demand for more courses on agronomy and digitisation of courses that guide learners on marketing and financial linkages. ADC has accordingly responded, and has also taken steps to integrate with other platforms, such as EASTWEST SEED and Sente Africa, to provide users with more options and drive utility.

Despite this success, there are still only few professional digital content creators in Uganda's agricultural sector. Nonetheless, ADC recognises the Content Development Support Programme (CDSP) created by the Government to enhance creative content development in the country. This programme facilitated ADC to digitise and publish eight courses, namely Good Governance and Leadership; Financial Literacy for Managers; Financial Literacy for Farmers; Crop Economics; Arabica Coffee Agronomy; Robusta Coffee Agronomy; Climate Smart Agriculture; Green Growth and Gender Inclusion. Based on this experience, Government is urged to provide more funds to support capacity building for Ugandan production companies and individuals for the development of audio-visual content and scripts.

(iii) **Limited down time and stable uninterrupted internet accessibility.** With the limited financial resources, ADC has consistently kept the SOMA platform functional, with necessary latest versions of technology required to meet the demand of users. Over the past five years, however, ADC registered several challenges in delivering the service due to the poor network infrastructures across the country. Poor network connectivity affected the learning process of farmers; hence most farmers dropped off and lost interest in learning. To alleviate this challenge, ADC has strived to improve the learning speed of learners

by translating course contents in local languages to speed up the learning and understanding processes. To improve e-agricultural extension outcomes, therefore, Government needs to invest in research and development, and speed up rural electrification and provision of affordable internet accessibility by extending the national backbone infrastructure project across all districts of the country.

(iv) Accreditation of the training content. The growth in Uganda's farmer education subsector has created many challenges including a drop in quality of both physical and online agricultural training content delivery. While in Uganda accreditation process for educational materials is applied to all higher education institutions, this is challenging for agriculture and sectors that offer educational materials to farmers. The existing gaps has been due to the absence of a specialised dedicated professional Government or non-government agency that can review and regulate the training materials delivered to farmers either online or physically. These gaps too need to

be urgently addressed by Government.

2.4.3: Operation of the SOMA e-Agricultural Extension Platform

The SOMA platform, illustrated in Figure 24, fosters a self-paced learning experience to users who may not easily access physical training when they are scheduled. The platform affords the learner opportunity to review and reference different learning points for better understanding. The SOMA content is mainly delivered in English, with some already translated into Luganda and Luo and other translations planned. The platform also has a forum section that allows learners to discuss and share knowledge/experience.

The platform is implemented through organised activations and a Trainer of Trainers (ToT) workshop with different organisations. To use the platforms, farmers go through five logical steps outlined below.

Figure 24: Implementation structure of ADC's e- agricultural extension platform- New and Existing Customers journey



Source: Author's construction

Step 1: Accessing the SOMA App. SOMA is a web-based application that is access through the **URL: www.soma.adc.ug** on an enabled device preferably smart phone, tablets, and computers with active internet connection. The platform can be accessed by Farmer-Based Organisations (FBOs), Investment Clubs, Village Savings and Loan Associations (VSLAs), Small and Medium Enterprises (SMEs), Academia, and any interested individuals.

The largest obstacle at this stage is lack of smart phones among farmers to facilitate easy access. To overcome this challenge, ADC introduced the Interactive Voice Response (IVR)³ technology into the SOMA App to enhance accessibility of learning content within SOMA in audio mode. The ADC is also provide online support to the learners to access the platform.

Step 2: Registration of a digital account. Before a prospective learner starts learning on SOMA, s/he is required to first access the website as earlier discussed, and registration for an account is mandatory for all individuals who want to learn on SOMA. Registration is an online process that starts from “[Join for free](#)” button on SOMA homepage <https://www.soma.adc.ug/register/>, followed by filling in required information like name, phone number, district, level of education, email address and language preference into an online form. Since most farmers do not have email addresses, ADC has made the requirement for email address optional on the platform. After filling in all mandatory required fields, farmers submit the form for validation.

Step 3: Logging in with a password and username. After submitting the registration form, a prospective learner will receive an email from ADC or a message from 8884 in the inbox of the telephone number or email provided at registration. This message contains a computer-generated username, password and a link for direct access to SOMA website. An individual is expected to copy the log in details, i.e. username and password in a safe notebook.

To log in, one clicks or taps the log in button <https://www.soma.adc.ug/user-account/> at the top right hand side of the screen, or access through the menu in order to feed in the username and password in their respective fields. The challenge at this stage comes with inability of many farmers to enter the correct username and password. To overcome this constraint, the ADC has made both credentials the same to ease the log in process, but this is also influenced by low level of information technology competence.

Step 4: Course selection. Once a user has logged in successfully, he/she will be able to access the different courses from the “MENU” button, and will then click/tap on the courses to view the different courses available on SOMA outlined earlier. Course selection on the platform is based on the needs and interests of individuals or farmer groups.

From the SOMA online database 2022, 80 percent of farmers who enrolled for a course on SOMA for the past four years have demonstrated interest and consistency, which has promoted a high level of completion. However, farmers are encouraged to take their time and learn at their convenience since this platform is developed to aid self-paced learning unlike for IVR where training automatic calls are scheduled according to the most convenient time of farmers. The ADC has dedicated course instructors for all courses on SOMA and platform facilitators who are always available to offer technical assistance and support to learners online.

Step 5: Course completion and certificate Award. Upon selection of the course of choice for learning, a user views the course outline with corresponding period it takes for one to complete a particular course. Learners are encouraged to always start from lesson one where they can learn by either listening to the video or reading the lesson notes or both. After learning a lesson, the user should mark it as completed from the complete orange button below every lesson. The ADC emphasizes this to enable the system track learners’ progress.

After completing a lesson, one proceeds to do a simple assessment 3-5 quizzes with multiple answers and later workable practical exercises. Once a learner reaches the quiz for some lessons, the system is programmed to time the period at which answering should be finished, which on failure to submit within allotted time, usually not more than 10 minutes, the system reshuffles and brings different questions. On successful submission of the quiz for marking, the system marks and grades with pass mark of 70 percent. Where a learner failed the assessment, the system requests them to revisit the lesson and retake the quiz with up to three attempts.

The same process is done for all courses and lessons, ending after completing all the lessons and passing all the quizzes and exercises. Upon course completion, farmers are issued a hard copy certificate by ADC as incentive for learners to complete their courses. Besides issuing certificates, best performing farmers are also provided with other awards, such as T-shirts, notebooks, pens, to encourage hard work. As a result of these rewards, more farmers have joined the platform.

2.4.4: Progress in the SOMA Implementation So Far

Since 2019, the ADC has been implementing the SOMA e-learning platform and has registered progress in creating awareness, provision of digital gadgets, enrolment and progress in digital literacy. Due to constraint and slow absorption, the ADC has so far established only two learning hubs, each with eight full sets of learning kits

in in Kyotera and Buikwe and capacities of 10 user thin clients⁴. With more interventions, cooperatives in these two areas can now access training remotely, evidencing the need for Government to invest in establishing more learning hubs and availing related training gadgets etc.

(i) **Awareness creation.** In a bid to promote SOMA, ADC has engaged and collaborate with several stakeholders, and in 2019 held stakeholder engagement workshops in the four main Regions of Uganda- Central, Western, Eastern and Northern (Table 4). These workshops were held with cooperatives and exporters to create awareness of the existence of the ADC SOMA e-learning platform and the services it offers. In this regard, over 10 cooperatives have been trained and linked to finance and market.

Since 2020, ADC also conducted several workshops with various with farmers and cooperatives, and with other stakeholders across the four regions, including traders, women groups and learning institutions (Table 4). In 2020, for instance, ADC organised a learning workshop with different players in various agricultural value chains through SOMA to equip them with market price risk management training which included two special workshops to manage price risk of coffee and cocoa. The number of workshops increased in 2021 due to the growing interest of various stakeholders across the regions in taking up the e-learning opportunity offered by the ADC. The growth in interest was further evident in 2022.

Table 4. Awareness creation by the ADC for the SOMA e-learning platform.

Period of operation	Type of stakeholders	Number of workshops/forum held		
		Farmers	Other users	Regions
2019	Cooperatives, Exporters	4	2	4
2020	Traders, Farmers	5	3	2
2021	Learning institutions, cooperatives, traders	5	2	3
2022	Learning institutions, cooperatives, traders	6	10	4

Source: Adopted from the ADC report, 2022.

(ii) **Provision of digital gadgets.** During the SOMA activation campaign and workshops, the ADC provided gadgets (Tablets) to farmers to use temporarily in the workshops; and due to limited number of gadgets available (less than 50 pieces of smartphones), ADC often encouraged 2-3 participants to share a tablet. Even with this very limited number of gadgets, ADC has over the years continued to provide training to farmers amidst the growing numbers of users. Further support is needed to make the requisite gadgets widely available to ease training and participation.

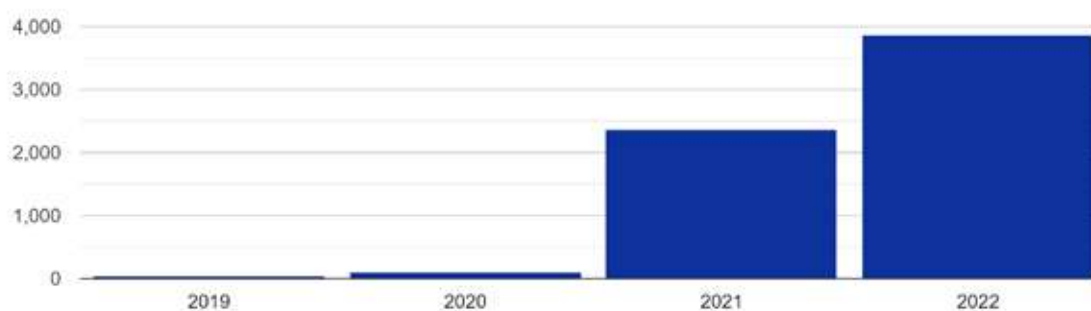
(iii) **Enrolment on the SOMA e-learning platform.** Enrollment is a vital initial process to the ADC and the learner in the use the SOMA e-learning platform. This process involves capturing the details of interested prospective learners into the system, and facilitates data reporting and insightful analytics on progress. Learner enrollment also enables them to generate login details to access the learning site and courses. Record of registration on the platform since 2019 is summarised in Figure 25 below.

In 2019, the first year of implementation of the SOMA platform, only 41 users (1% of current total) registered, due largely to the then low market penetration with

the innovation. In the second year (2020), registration increased to 117 as a result of the intensive marketing strategy adopted. Enrollment then grew exponentially to 2,380 in 2021 as a result of partnership and application upgrade; and in 2022 the ADC registered the highest enrollment of 3,891 users, due to impetus gained and also to introduction of new modules (courses), system speed advancement and frequent activations carried out. With more support and collaboration, the future outlook is promising.

(iv) **Progress in digital literacy of users.** In the ongoing effort to digitise farmer groups, ADC has set up digital learning hubs and provided for training remote kits that are enabling building of digital literacy among farmers and other stakeholders. Along with the farmer groups, ADC has agreed to training schedules where a team from ADC trains all farmer group members on how to utilise Information Communication Technology (ICT). Thus far, over 1000 farmers have been equipped with digital literacy skills and over 6000 are actively enrolled onto the SOMA e-learning platform (Table 4).

Figure 25: SOMA e-learning enrollment (2019-2022)



Source: Adopted from the SOMA online database 2022.

Table 5: Digital training by the ADC

Period of operation	Type of digital literacy provided	Number of users	
		Farmers	Other users
2019	Computer & Internet Use	35	15
2020	Computer & Internet Use	30	00
2021	Computer & Internet Use	320	100
2022	Computer & Internet Use	440	60

Source: Adopted from the ADC report, 2022.

farmers interested to take ADC's trainings through SOMA. In the first year of launch (2019), 50 users were trained, but the COVID-19 pandemic disrupted rollout resulting in only 30 users being trained in 2020. In 2021, however, the number of users trained recovered to 320 farmers, while 100 other users accessed digital literacy training. In 2022 training further recovered, with up to 500 trained on digital literacy.

Despite the growth in farmer enrollment training, however, ADC remains constrained by limited resources to establish hubs, acquire more electronic gadget to support the training, and to further promote the SOMA e-learning given that the previous set target for the project has not yet been achieved. There need, therefore, to build more partnerships and for Government to establish more computer hubs; provide more gadgets for use in training farmers that can be made more attractive to farmers by installing weather forecast programmes; and subsidise the internet to make it affordable to farmers and establish computer hubs. These will go a long way in empowering farmers and value chain actors to transform Uganda's agricultural sector.

2.4.5: Challenges in implementing the SOMA e-learning in Uganda and Lessons Learnt

Over the years of implementation of the SOMA e-learning platform, ADC has encountered various challenges alluded to earlier, and have also registered significant lessons that, when addressed, will greatly enhance delivery of

e-based extension services to farmers, value chain actors and other stakeholders in Uganda. The key challenges include limited digital infrastructure and learning hubs, lack of gadgets for use by learners, and undeveloped local content of instruction materials.

(a) Inadequate digital infrastructure. The current major gaps that exist in extending, adoption and use of SOMA e-learning platform are lack of internet and reliable electricity connectivity particularly in hard to reach areas. Although several projects have been piloted by Government to facilitate the creation of ICT Innovation ecosystem and marketplace with innovative digital products for Ugandan, only 12.16 million people have access to affordable internet in the country (UBoS, 2021), and access is highly disrupted by lack of and unreliable electricity supply. This is a challenge that Government needs to work on expeditiously.

(b) Lack of gadgets to aid access to the SOMA e-learning platform. Currently, most small-scale farmers in rural areas of the country do not have access to gadgets such as tablets, computers, and smartphones to enable them use the SOMA platform. In addition, farmers do not know where to access information to allow them access services online, while others cannot afford smart gadgets. This deficiency is a major drawback on spreading the use of the platform countrywide and especially rural areas.

(c) Lack of locally developed online learning content and curriculum. Content development is a critical area

that is too often overlooked, and creating and sharing of local content in Uganda has not been an easy process. For effective implementation of the SOMA e-learning initiative where negative attitudes towards new technologies and long held traditions of communities, bodies with relevant contents tend not to share it with others. Worse, academic institutions in Uganda have not invested in developing local contents aligned with national curriculums that can be utilised for e-learning. This lack of local content is a serious drawback not only for the SOMA initiative but e-learning in general.

Further basing on experiences from the last four years of implementation of the SOMA e-learning innovation, the ADC has also registered key lessons, the address of which will strengthen implementation and adoption of the SOMA platform and other e-learning initiatives in the country. Critical to this is intensification of investment and collaboration.

(i) Strong financial investment. Financial constraint is one of the key limitations for effective implementation of innovations in agriculture. Sufficient financial resources are needed to support the full roll out of the SOMA innovation to all parts of the country and to facilitate content creation that, in particular, involves translation of courses into local languages and transcribing IVR for those without smartphones; and nationwide activation campaigns. Establishment of more ICT learning hubs and acquisition of gadgets for farmers are key priorities for effective SOMA implementation for agriculture.

(ii) Investment in digital literacy. Form implementation, it was also evident that the extension services offered to farmers should first target change channels and agents before full roll out as a key strategy for effective digital literacy training. The urgent need for improvement of digital literacy should also involve training of farmers on the different ICT functionalities to deepen their ICT knowledge and embrace.

(iii) Strong stakeholder collaborations. To ensure effective implementation and wide-scale adoption of the SOMA e-learning extension service system, there is urgent need for extensive collaborating with all stakeholders, including farmers and learning institutions, to collaborate in availing contents for digitalization. In addition, collaboration with Government Ministries, Departments and Agencies is required to strengthen the agricultural institutions and policies that promote and support technology adoption in agriculture for effective implementation of the platform and for wide outreach.

2.4.6: Policy Options and Way Forward

In four years of implementation of the SOMA e-learning agricultural extension service delivery, the goal of delivering high-quality agricultural extension to every farmer in Uganda in relatively cost-effective manner remains unfulfilled. Technology use presents opportunity for this goal to be met, and the e-agricultural extension solution availed by the ADC holds huge potential to improve the agriculture extension services, access to market and finance in Uganda. This, however, will only be possible if the innovation is implemented under supporting policies, collaborations and strategies that focus on overcoming existing key challenges.

In designing the online courses, every learning style should be taken into consideration. For example, while one student, in this case a farmer, may benefit from visual multimedia presentation of coursework and lessons, another may better absorb information when presented in text form. An effective e-learning course should therefore always take these variations in learning styles into account when the lessons are being created. Even then, to deepen outreach of this innovation now being implemented, the following five priorities outlined below need to be seriously considered and quickly implemented.

(i) Fast tracking awareness about the benefits of electronic training. In this regard, Government needs to create an enabling environment through the ICT Ministry to disseminate information on

the benefits of digital training as this will ease intervention by ADC and other players.

- (ii) There is a need for online support and follow up on users of the SOMA platform after activation to engage and support them in their learning experience. Government should intervene to establish and equip ADC farmer Call Center to address the challenge.
- (iii) Digital literacy training among users and prospective needs to be made an investment priority for the country. The digital literacy training requirements that Government should invest in are computer hubs, smart phones, tablets and effective and affordable internet services to improve farmer readiness and access to this innovation.
- (iv) The ADC should increase the number of SOMA Agents advocating for the platform in every community, and have a physical presence of a member instructor to guide and keep users.
- (v) Government should prioritise investment in digital infrastructure, specifically improvement of internet accessibility and power supply in the local areas where smallholder farmers are based to facilitate effective use of the platform.

With progress made and commitments demonstrated so far, there is hope in expanding use of the SOMA e-learning system and other digital platforms to promote agricultural transformation in the country.

References

- UBoS, (2021). Statistical Abstract, 2021. Uganda Bureau of Statistics, Kampala, Uganda. Accessed at https://www.ubos.org/wp-content/uploads/publications/01_20222021_Statistical_Abstract.pdf
- Obaa, B., Mutimba, J. and Semana A. R., (2005). "Prioritizing farmers' extension needs in a publicly-funded contract system of extension" Accessed at <https://odi.org/documents/1962/5164.pdf>
- EPRC, (2018). Fostering a sustainable agro-

industrialisation agenda in Uganda. Economic Policy research center. Kampala, Uganda. Accessed at https://eprcug.org/wp-content/uploads/2020/09/FOSTERING_A_SUSTAINABLE_AGRICULTURAL_INDUSTRIALISATION_AGENDA_IN_UGANDA.-Final_Reportpdf_compressed.pdf

Davis, K., Suresh, C. B. and Ragasa, C., (2020) Agricultural Extension: Global status and performance in selected countries. Washington, DC : International Food Policy Research Institute. Accessed from <https://ebrary.ifpri.org/utils/getfile/collection/p15738coll2/id/133965/filename/134181.pdf>

Afranaakwapong, N and Nkonya, E., (2015) Agricultural extension reforms and development in Uganda. Journal of Agricultural extension and rural development. Vol. 7, pp122-134. Accessed from <https://academicjournals.org/journal/JAERD/article-full-text-pdf/FD94D4851880>

Barungi, M, Adong, A and Guloba, M. M., (2016) . Uganda's Agricultural Extension Systems: How appropriate is the Single Spine Structure? Economic Policy Research Centre, Kampala, Uganda. Research Series No. 16 Accessed from https://ageconsearch.umn.edu/record/253558/files/16%20Uganda_s%20Agricultural%20Extension%20Systems.pdf

Endnotes

- 2 Activation is the process of registering new users so that they have an active learning account on an online platform.
- 3 Interactive Voice Response (IVR) IT is automated telephone information system that speaks to the caller with a combination of fixed voice menus and data extracted from databases in real time
- 4 A thin client is a computer that runs from resources stored on a central server instead of a localized hard drive.

2.5 INTRODUCING ALTERNATIVE CREDIT SCORING AMONG DAIRY COOPERATIVES IN UGANDA: THE CASE OF THE EMATA APP

Maren Hald Bjorgum¹



2.5.1: Background

The dairy sector in Uganda is a pillar of the country's economy and one of its most promising sectors. With vast pastures and ample rainfall, the Uganda dairy sector has excellent potential to create employment and rural prosperity, and generate export revenues. With over one million dairy farmers, the Ugandan milk industry produced close to 3 billion litres of milk in 2020, contributing about USD 700 million to farmer income (DDA, 2020). According to SNV (2020), Uganda is poised to be the largest dairy exporter in Africa, and data from the Dairy Development Authority (DDA) indicates that dairy exports reached USD 200 million in 2020, making up over 5 percent of its total export (*ibid*).²

The impressive macroeconomic figures notwithstanding,

dairy farmers still experience considerable challenges, especially regarding productivity and earnings. Despite its vast pastures and ample rainfall, the Food and Agriculture Organisation of the United Nations (FAOSTAT) ranks Ugandan productivity per cow among the lowest in the world; and its productivity of 400 litres per cow per year is below the African average (500 litre per cow) and over 10 times lower than the European average (6,500 litre per cow) (*ibid*). This low productivity affects farmer income, especially for smallholder farmers who are the bulk of Uganda's dairy producers, with data from Emata database indicating that the average dairy income per farmer in Uganda is below USD 1,000 per year.

One of the main reasons for the low productivity of Uganda's dairy farmers is the lack of access to financing, mirrored by inadequate lending to smallholder farmers by regulated financial institutions (Anderson *et al.*, 2016). The root of this problem is that many financial institutions

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in Uganda struggle with slow and expensive manual processes; lack efficient last-mile distribution; and prefer to lend to borrowers that own substantial collateral (*ibid*). According to McKinsey (2022), the cost-to-asset ratio of African banks is more than twice the global average, and this is typical for Ugandan banks. This severely affects smallholder farmers who often need small loans that banks avoid giving due to the high costs of processing loans manually. Secondly, banks lack effective last-mile distribution in rural areas, since they focus their banking activity on areas with branch networks, typically Kampala and larger cities.

For rural farmers, this means they must cover vast distances, often over 100km back-and-forth, moving several times throughout the bank application process. This is a substantial and expensive barrier, especially for smallholder farmers who need a small loan. Added to these, the smallholder farmers lack the extensive documentation and high collateral requirements that banks demand. As a result of these challenges, Uganda's vast dairy potential remains underdeveloped, and farming families struggle to achieve prosperity.

Current available evidence indicates that exclusion from formal financial services in rural populations (at 48%) is twice higher than for urban populations (at 24%) (FSDU, 2018). This challenge is fundamental to the future of Uganda where 70 percent of the population relies on agriculture for employment. This article therefore examines the structure, conduct, performance, challenges, and lesson learnt from implementing the digital innovation- the Emata App- in building electronic credit histories to ease financing of the smallholder dairy value chain.

2.5.2: The Structure and Conduct of the Emata App in Uganda

Emata is a Ugandan fintech, whose major role is to deepen financial access through digitising of cooperatives and providing affordable digital loans to smallholder farmers. Its mission is to enable farmers to turn their

farms into businesses to ultimately feed not only just Uganda but the world. Emata innovation was born out of a partnership between Rabo Foundation and the Agribusiness Development Centre (ADC) and then with Laboremus (U) in 2019. The partnership aimed to support the development of solutions to enable financial prosperity for dairy cooperatives and farmers.

The Emata model solves challenges banks face when financing farmers. Whereas banks largely rely on manual processes, Emata automated the entire process, from data collection and credit processing to loan disbursement. The high level of digitisation enables Emata to provide loans suitable for smallholder farmers and makes the lending decision instant. This means farmers do not have to wait for months before knowing if they will have the funds required to make critical and often time-bound investments.

The Emata process can be broken down into three steps:

First, Emata provides software to dairy cooperatives to digitise their operations via a user-friendly Management Information System (the Emata "MIS"). The Emata MIS unravels administrative clutter, increases transparency and allows cooperatives to make data-driven decisions. The system works offline and handles multiple branches through a smart solution that periodically synchronises data. The MIS also sends SMSs to farmers to confirm their milk deliveries.

Second, Emata converts the data collected via the MIS and third-party weather and satellite data into credit limits tailored to each farmer. Emata achieves this by using algorithms that forecast production, income, and cash available for debt service. This data science-driven approach allows for better decision-making that reduces the risk and, thus, the need for collateral. This allows Emata to service all farmers, regardless of whether they are men, women or youth – and not just the large-scale professional farmers with collateral.

Finally, the Emata model addresses the issue of last-mile distribution. Emata loans are requested through WhatsApp by using an automated chatbot. WhatsApp is very popular, data efficient, and eliminates the need to install a separate app (which takes up space on the phone). Farmers without WhatsApp can use smartphones at their dairy cooperatives. This allows Emata to reach even the most remote farmers who have no smartphones. Emata issues these loans themselves on the back of their Microfinance license.

2.5.3: Progress in Implementation of the Emata App

Emata has had an impressive start in financing smallholder dairy farmers in Uganda. And since then, progress in its implementation is firmly reflected in huge gains made in farmer registration, loan performances, cost reduction and farmer identification.

(a) **Farmers' enrolment.** Since launching in 2021, Emata scaled to four value chains (dairy, oilseeds, coffee, maize) and signed over 50 cooperatives as partners, with an aggregated base of over 40,000 farmers. Emata has introduced loans to farmers who have never experienced the opportunities credit can offer in running and investing in their farms. Moreover, the loans have proven accessible, affordable and equitable.

(b) **Loan repayment performance.** In 2022, Emata's repayment rate stood at 95 percent. Emata does same-day delivery of loans, with an average disbursal time of less than 15 minutes. The speed and reliability of Emata is important for farmers who often need to make time-bound decisions, e.g. to access the seeds needed to plant or feed for cows in the dry period.

(c) **Implementation Cost.** Emata is financed on interest rate only, at 3- 4.5 percent per month based on the value chain and the partner. There are no other fees or costs.

Table 6: Emata performance progress as of November 2022

Parameter	Total
Loan disbursement	UGX 1.5 billion
Repayment rate	95%
Signed Emata partners	56
Emata partners live on lending	32

Source: Emata MIS

(d) **Know Your Customer (KYC) requirements.**

Emata keeps the KYC process to a few minutes while maintaining compliance with relevant laws and managing its risk. When on-boarding a farmer, Emata registers, amongst others, the National Identification (photo/scan of front and back), a photo of the farmer, phone number and village/location. Additionally, each farmer reads and signs a loan framework agreement presented in her/his local language to make sure the farmer has a full understanding of the agreement.

2.5.4: Lessons Learnt from Emata Implementation

In the implementation the Emata App in Uganda so far, significant lessons were learnt that should help in making improvements but, importantly, should inform Government policy and interventions going forward. Key among this are need for flexibility in implementing the rural environment, poor digital environment, and digital illiteracy.

(i) **Implementing high technology solution in a low technology rural environment requires flexibility.**

There are many lessons to note when implementing a high-technology solution in a low-technology rural environment. When starting out, the Emata MIS was initially designed as a mobile application envisioned to be used by cooperative staff (primarily milk assistants) to register delivery in real time. After piloting the solution, the team found that the cooperative staff preferred a desktop application instead, as some of them were already using simple Microsoft Excel spreadsheets to input delivery

data from paper ledgers. As a result of this initial learning, Emata is employing human-centred design principles to develop new features and solutions. This involves working together with farmers and cooperatives to ensure that what is created works well for and benefits the end user.

(ii) Limited rural digital infrastructure is a key limitation for implementation. While measures have been taken to increase connectivity in rural areas, limited data connectivity is still a prevailing problem for any digital solution to make headway in Uganda. Emata solved this issue in part by making the MIS available offline. The cooperative staff does backups and syncs the system when they have access to network. However, a consistent network connection would be preferable.

(iii) Investment in digitally literate champions is inevitable in rural areas. Since rural farmers are not as technically literate as urban dwellers, the Emata team has developed digital champions amongst the digitally literate cooperative administration staff. The digital champions are trained by a dedicated on-the-ground Emata Impact team. Utilising these key persons to digitise and financially include members of their cooperatives has proven an effective model. Also, the Emata MIS and the WhatsApp are simple-to-use tools than the high-tech one accessed by the more technically literate people in a community. In contrast, the less technically literate communicate with and receive information from the cooperatives and Emata via SMS, as well as through occasional physical meetings at the cooperatives.

2.5.5: Challenges in Implementing the Emata Model in Uganda

The Emata model of alternative credit scoring to increase financial deepening has massive potential in Uganda and East Africa. There are an estimated 400 dairy cooperatives in Uganda, and Emata reaches them via apex bodies and other cooperative-supporting organisations such as SNV, Heifer Project, the Dairy Development Authority (DDA) and the Agribusiness Development Centre (ADC). Emata

solves some fundamental problems in agriculture, such as strong demand for loans from farmers; aggregators that want their farmers to invest more but struggle to attract banks able to do this well; and a reduction of side-selling by registered borrowers.

Although the Emata App use has demonstrated huge potential for revolutionising agricultural financing in Uganda, and the digital path that the country must turn to in its effort to modernise and transform, the country still has significant digital challenges that it must address, particularly unfavourable business environment, lack of incentives, and poor coverage of rural areas.

(a) Unfavourable digital business environment. Technological innovation and uptake in Uganda remain stifled by the following: unfavourable business environment/ high cost of doing business, inadequate regulatory framework, punitive levels of taxation, characterised by high import duties on services/products not offered in Uganda. For huge progress to take place, these need to be urgently considered by the Government.

(b) Lack of incentives for digital start-ups. Unlike many other countries, there are also no incentives, tax breaks or meaningful support for start-ups from the Government. For companies like Emata that work on cutting costs through digitisation and automation to effectively reach and service smallholder farmers at scale, every penny matters. While the model has managed to push down costs significantly, the current environment does not allow companies like Emata to offer loans at the rates they would prefer.

(c) Limited coverage of rural agents. Although telecommunication coverage in rural Uganda is reasonable, there is a vast potential for improvement. Based on Emata's experience, this should primarily focus on expanding the coverage of rural agents and lowering the costs of data and mobile money taxes to ensure that the services are affordable for low-income earners who live in rural areas.

2.5.6: Policy Recommendations and Way Forward

Emata has been welcomed by dairy cooperatives as a positive and, in many cases, revolutionary addition to their administrative operations. More importantly, the company is financing farmers at a low cost and with a high repayment rate, proving that their model for alternative credit scoring tailored to the individual farmer's repayment capabilities is working.

Emata dares farmers to dream big, think big and act smart by professionalising their farms, turning them into businesses and as a result growing their own prosperity. Uganda and Africa have a huge untapped potential to increase its agricultural output and make the industry the foundation for sustainable economic prosperity. However, the main challenges facing innovations such as Emata lie in the lack of a favourable business environment that encourages growth of start-ups. Equally challenging are the unnecessary costs, such as mobile money taxes, placed on initiatives that promote financial inclusion. If these challenges can be dealt with, initiatives like Emata can be the fuel that allows farmers to think big, grow their farms, and help feed not just Uganda but the world.

References

- Anderson, J., Colleen E. L., and Scott T. G., (2016). National Survey and Segmentation of Smallholder Households in Uganda. Understanding Their Demand for Financial, Agricultural, and Digital Solutions. Accessed at <https://www.cgiar.org/sites/default/files/publications/Uganda%20CGAP%20Smallholder%20Household%20Survey%20Report.pdf>
- DDA, (2021) Dairy subsector and the Dairy Development Authority Performance Highlights. Annual Report FY 2020/2021. Accessed at <https://dda.go.ug/assets/files/DDA-annualreport20-21.pdf>
- FSDU, (2018). Finscope Uganda. Topline Findings Report. Financial Sector Deepening Uganda. Accessed from <https://fsduganda.or.ug/wp-content/uploads/2018/10/FinScope-Uganda-Survey-Report-2018.pdf>
- Mckinsey, (2022). African Banking, the productivity opportunity. Accessed from <https://www.mckinsey.com/industries/financial-services/our-insights/african-banking-the-productivity-opportunity>
- SNV, (2022). Uganda poised to become the largest dairy exporter in Africa. SNV Blog. Accessed at <https://snv.org/update/uganda-poised-become-largest-dairy-exporter-africa>

Endnotes

2 *ibid.*



3

CHAPTER FINANCING OF AGRICULTURAL VALUE CHAINS

3.1 IDENTIFYING INPUT CREDIT FINANCING OPPORTUNITIES IN UGANDA'S SUGARCANE SECTOR

Florence Nakazi and Swaibu Mbowa¹



3.1.1: Background

Under the Uganda National Development Plan (NDP) III agro-industrialisation programme, sugarcane is among the fourteen strategic commodities earmarked by the Government to promote inclusive rural economic transformation and rural poverty reduction. Sugarcane production in Uganda has expanded three-fold over the last two decades, from about 1.5 million tonnes in 2000 to 5.8 million tonnes in 2020, with 37 percent of national production contributed by out-grower cane farmers (FAOSTAT, 2022). However, national level growth in sugarcane production has primarily been achieved through converting more land to cane production- from approximately 20,000 ha in 2005 to over 81,000 ha in 2020 (FAOSTAT, 2022).

The expansion in sugarcane production in the country without investment in use of yield enhancement inputs

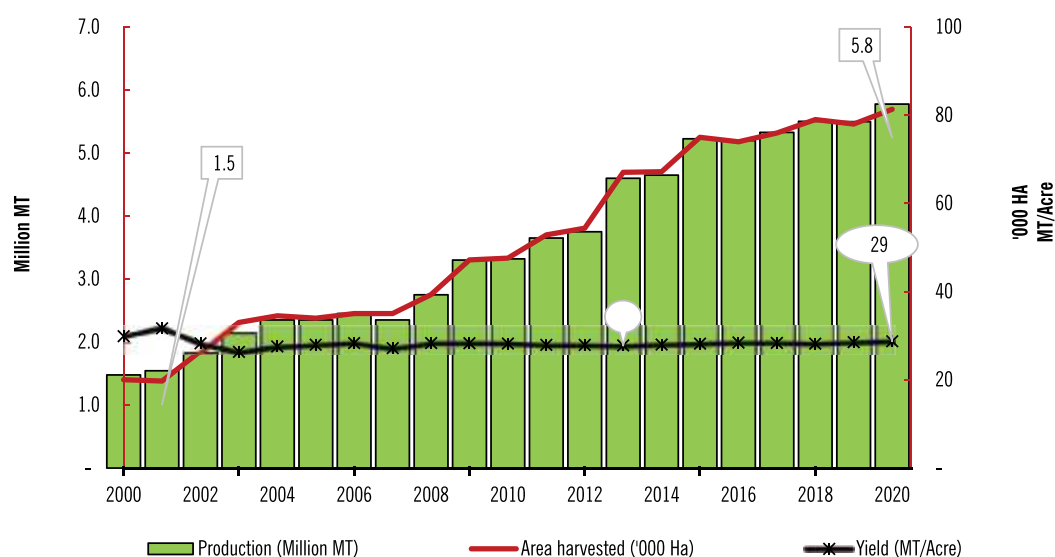
and technologies has restricted growth in yield to only 28 metric tonnes per acre over 20 years (FAOSTAT, 2022). Significant opportunity therefore exists to produce more sugarcane with investments in sound agronomic practices and use of yield enhancing inputs. In this article, therefore, we highlight how the current low sugarcane productivity at farm level provides opportunity to establish framework for supporting credit financing inputs for sugarcane production. The article also reviews the various avenues outgrowers currently use to finance their sugarcane production activities, and the potential risks associated with financing sugarcane production.

3.1.2: Productivity Gaps for Sugarcane

The gap in sugarcane productivity in the country is evidenced by the stagnation in yield (Figure 26), which provides business opportunity for both agribusiness firms and input credit financing institutions.

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Figure 26: Stagnation in sugarcane productivity (2000-2020)

Source: Author's construction based on FAOSTAT (2022)

The opportunity in sugarcane input supply and financing of production is supported by the growth in the number of mills that create markets for sugarcane, that has steadily expanded from four mills in 2000 to over 33 licensed mills in 2020 (Mbowa *et al.*, 2022). The opportunity is further supported by the growing number of cane farmers who have since 2005 increased from 4,000 to 29,000 in 2021 (ibid).

Sugarcane is a semi-perennial crop that, under proper management practices, matures at 18 months in intervals of 1 to 4 ratoons³ (Table 7). The four ratoons regularly

harvested can extend the lifespan of a well-managed field to 8–10 years. The crop produces high yields, ranging from 32 to 43 metric tonnes per acre under optimum input use on nucleus estates⁴ and 37 tonnes per acre on outgrower managed farms. However, due to limited access to credit, farmers have not been able to invest in productivity enhancing inputs like fertilisers and improved seedlings, and this has adversely affected national yields that averaged only about 29 MT/acre in 2020 (Figure 26). Yet it is important for both nucleus estates and outgrowers to maintain high productivity levels because outgrowers supply over 52-60 percent of cane milled by traditional

Table 7: Cane productivity is higher on nucleus estates compared to out-grower farms (MT per hectare)

Crop cycle	Kakira		SCOUL		Kinyara	
	Estate	Outgrowers	Estate	Outgrowers	Estate	Outgrowers
Plant	47.5	40.1	47.0	46.4	34.0	41.6
Ratoon 1	41.4	37.4	41.4	37.7	32.4	37.7
Ratoon 2	32.4	35.5	39.4	32.9	31.1	32.0
Ratoon 3	21.4	33.6		30.1	25.6	32.4
Ratoon 4 and above					30.5	33.4
Average all cycles	40.8	37.7	42.6	36.8	31.9	36.5

Source: Uganda Sugar Manufacturers Association (USMA) 2022

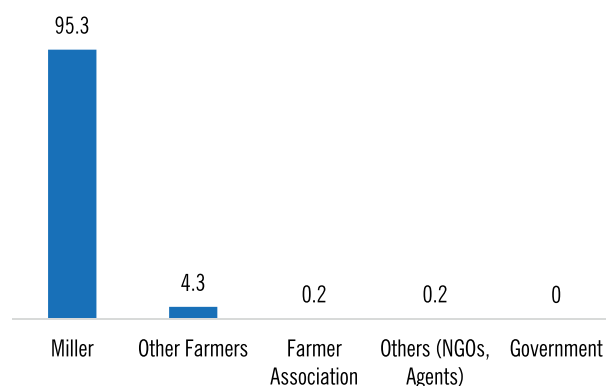
sugar factories (Table 7).

3.1.3: Sources of Input Credit Financing for Sugarcane Outgrowers

Despite the observed progress of increase in the acreage under cane (Figure 26), and number of mills for processing cane (Mbowa *et al.*, 2022), agricultural input credit financing especially for sugarcane outgrowers remains a big challenge. Sugarcane has never been prioritised in Uganda's agricultural investment plans, the historical reason being that it is an industrial crop supported primarily by sugar processing mills. Even in the National Sugar Policy (2010) where Government proposed a number of programmes, including SACCOs and NAADS, to improve outgrower access to input credit, the crop has attracted little financial support from Government (Figure 27). Nonetheless, sugarcane outgrowers have used varied mechanisms, including contract financing and other formal and informal financing modalities, to finance critical production activities.

(i) **Financing through contract farming.** Contract farming in the sugarcane sub-sector has been applied by mainly of the traditional large mills (Kakira, Lugazi, Kinyara) to help farmers overcome input credit financial constraints. Under this arrangement, outgrowers are “*registered and aided*” and facilitated in kind to undertake activities involving land preparation, weeding, harvesting

Figure 27: Source of support when farmers started growing cane (%)



Source: Authors construct using EPRC Sugarcane Survey collected in 2021

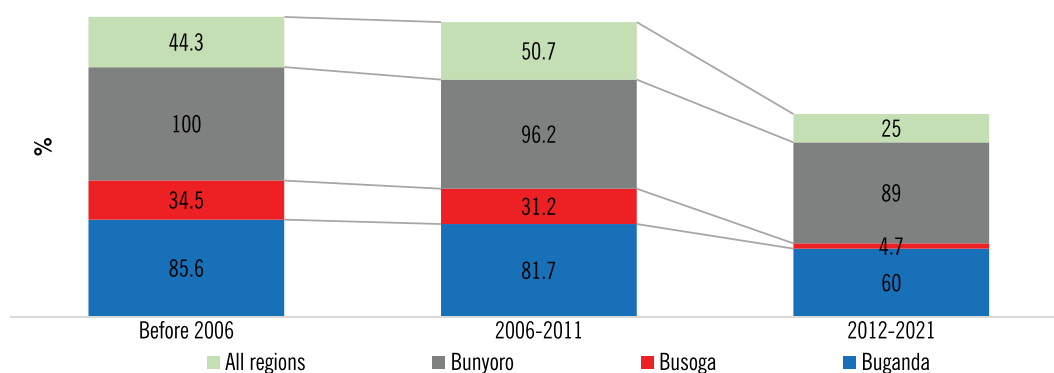
and transportation of cane to the factories. This is executed through written agreements, with an understanding that a mill guarantees market for cane when it is mature (at 18 months) and in turn outgrowers are obligated to sell 100 percent of registered cane to the sugar factory to allow the loan repayments to be deducted from the sales price. This financing scheme has been the primary source of support of credit for over 95 percent of the farmers when they started growing cane (Figure 27).

As evidenced in Table 8, most (over 85 percent) of sugarcane farmers have had their fields registered with millers. Thus, opportunity is available to leverage on existing database and registration certificates for credit assessment and profiling of outgrowers.

Table 8: Registration status of outgrower sugarcane farmers (%)

Arrangement	Buganda (n=2,938)	Busoga (n=6,060)	Bunyoro (n=3,220)	All (n=12,218)
Registered & aided	74.17	25.64	94.76	68.84
Registered but not aided	9.27	51.28	1.31	18.10
Not registered and not aided	4.64	7.69	2.18	4.48
Multiple arrangement	11.92	15.38	1.75	8.58

Source: Mbowa *et al.* (2022)

Figure 28: Decline in miller input credit financing over time (%)

Source: Authors construct using EPRC Sugarcane Survey collected in 2021

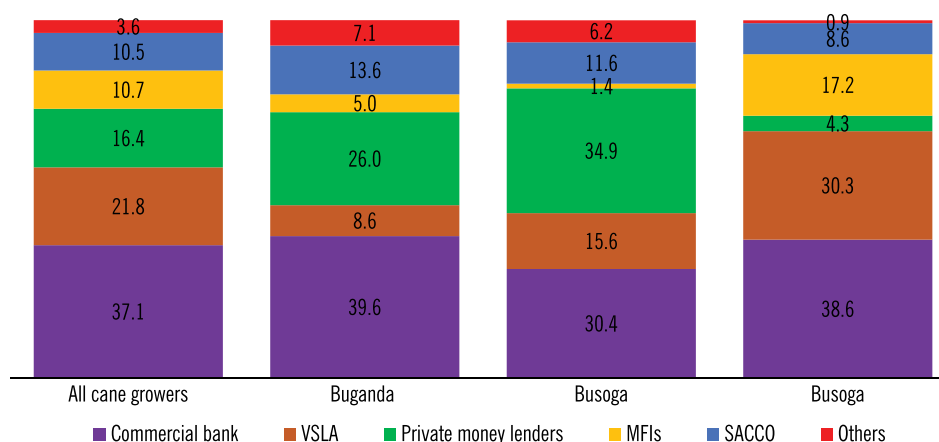
Even then, contractual input credit financing has been on a decline (Figure 28) due to risk exposures brought about because of failures of both growers and millers to strictly adhere to contractual obligations.

It is suggested that the failures in contract financing started in 2010 with the entry of smaller millers who did not have nucleus estates but lured registered outgrowers for the traditional factories to side sell cane to them. In the absence of formal regulation of the sugar industry, the competition between the new millers⁵ and traditional millers led to the old millers losing control over outgrowers. Other reasons for the decline include the effects of the Russia-Ukraine war that made costs of fertilisers and fuel for ploughing too high and cane growing unprofitable. At the same time as cane supply dwindled, side selling of cane pre-financed by millers became highly lucrative to growers.

Because of the above challenges, millers abandoned registration of farmers for support due to huge losses they suffered in the hands of outgrowers they supported with inputs and other production activities. The abandonment of registration curtailed extension of input credit to growers by millers, yet this was a critical factor in ensuring sugarcane farm-level productivity and profitability (which are a fundamental indicator of the sub-sector's performance). This experience formed a critical area of concern by sugarcane investors on how they would safely guard farmers from side selling cane pre-financed by them. It also led to their advocacy that resulted in the enactment of the Sugar Act 2021.

(ii) Tier 1-Commercial bank financing of growers.

Besides the in-kind form of input credit financing provided by millers, over 37 percent outgrower cane farmers have accessed input credit finance from commercial banks

Figure 29: Individual and group sources of credit to cane growers

Source: Authors compilation using EPRC survey data collected in 2021

(Figure 29). It is noteworthy that registered outgrowers use sugarcane registration certificates as collateral substitute to legally recognised title deeds that most Ugandan farmers lack to access credit from commercial banks for purposes of cane growing, including buying more land or ‘renting’ from other poor outgrowers (Martiniello, 2021). Kakira Sugar Works for example serves as a guarantor to its registered outgrowers to borrow from the local branch of Tropical African Bank situated in the perimeter of the sugar plant (ibid).

In this collaboration with Kakira Sugar, Tropical Bank provides (i) short-term loans – from UGX 500,000 to UGX 25 million repayable in six months; and (ii) commercial loans of UGX 100 million to buy machinery or land repayable in five years. For both loans, the interest rate provided ranges between 17 and 22 percent. Kinyara Sugar Works also has a similar arrangement with Stanbic Bank for its registered farmers as narrated by farmers during engagement with them in Busoga and in Bunyoro sub-regions. However even this arrangement has had challenges as narrated below.

“Over 70 percent of Kinyara out grower farmers get loans from banks using registration certificates from Kinyara. However, the loan terms are not sustainable to farmers given the fact that cane takes 18 months to be harvested and sold. The banks convince farmers to get loans as soon as they plant their sugarcane, yet it takes 18 month to mature and sell. The payback period is after three months. This has been challenging to farmers and they have failed to pay. In the end the banks have sold off farmers’ land to recover the loans” (source, KII with farmer, 2022)

(iii) Financing from other financial institutions such as VSLA, private money lenders. There is also evidence of the use of group-based approaches (VSLA at 22% money lenders 16 % SACCOs) by farmers to finance sugarcane growing in the three main sugarcane growing Regions of the country. SACCOs, in particular, is a group-

based form of mobilising as well as financing credit if well set up. They reduce market risks for farmers through flexible repayment structures and bundling non-financial services with credit. The observed levels of credit access from SACCOs is partly explained by significant decline in the number of sugarcane farmers who belong to farmer associations, from 25 percent before 2006 to only 11 percent in the period 2012-2021, with variations across regions (Mbowa *et al.*, 2021). This calls for efforts to train farmers on the importance of such SACCOs in mobilisation of finances for cane growing.

(iv) Informal land rental input financing. Under the land rent mechanism, cane farmers get access to land for sugarcane growing by hiring land from poor farmers at a fee of between UGX 100,000 and UGX 150,000 per acre per year (Martiniello, 2021). This approach has had negative impacts on the sugarcane communities to the extent that many actors have coined sugarcane as a poverty crop in Busoga. This is partly attributed to land hired out for cane production being locked up for over six years, yet farmers receive the money for renting land in the first six months. This mode of asset financing is also risky where the land tenure system is insecure (mostly based on “kibanja”) as cane grown must occupy land for not less than five years. The long lead time of five years required by the lessees has sometimes forced lessors into criminal actions like arson or selling the land to new owners who refuse to honour the lease contract.

3.1.4: Opportunities for Sugarcane Input Credit Financing

The sugarcane outgrowers scheme has potential to generate farm incomes and hence are potential targets for institutions that undertake input credit financing. It is estimated for example that, in the 2020/21 season, the outgrower business segment generated about UGX 197 billion shillings to household farm incomes (Mbowa *et al.*, 2022). This revenue inflow creates a range of business opportunities, from supply of seeds and fertilisers to hiring of tractors, estimated at UGX 147 billion (Table 9).

Table 9: Value of the sugarcane business (Billion UGX)

Total input costs	Buganda	Busoga	Bunyoro	All regions
Cane Seed	5.7	18.2	1.2	25.1
Inorganic Fertiliser	1.3	2.0	1.2	4.4
Organic Fertiliser	0.2	0.0	0.0	0.2
Herbicides, pesticides	1.9	1.8	0.2	3.9
Private extension	0.1	0.2	0.0	0.3
Rented land	5.4	15.4	0.8	21.6
Tractor hire	2.4	11.0	2.0	15.4
Hired labour	20.4	43.9	11.7	76.0
Total value	37.4	92.3	17.2	146.8

Source: EPRC Sugarcane Survey (2022)

On-farm budget information shows that on average a sugarcane farmer incurs over UGX 1.5 million to grow an acre of sugarcane (Table 10). Of this, hired labour contributes about 31 percent followed by seedlings (23 percent), hiring land (10 percent), hiring tractors (8 percent), among others.⁶

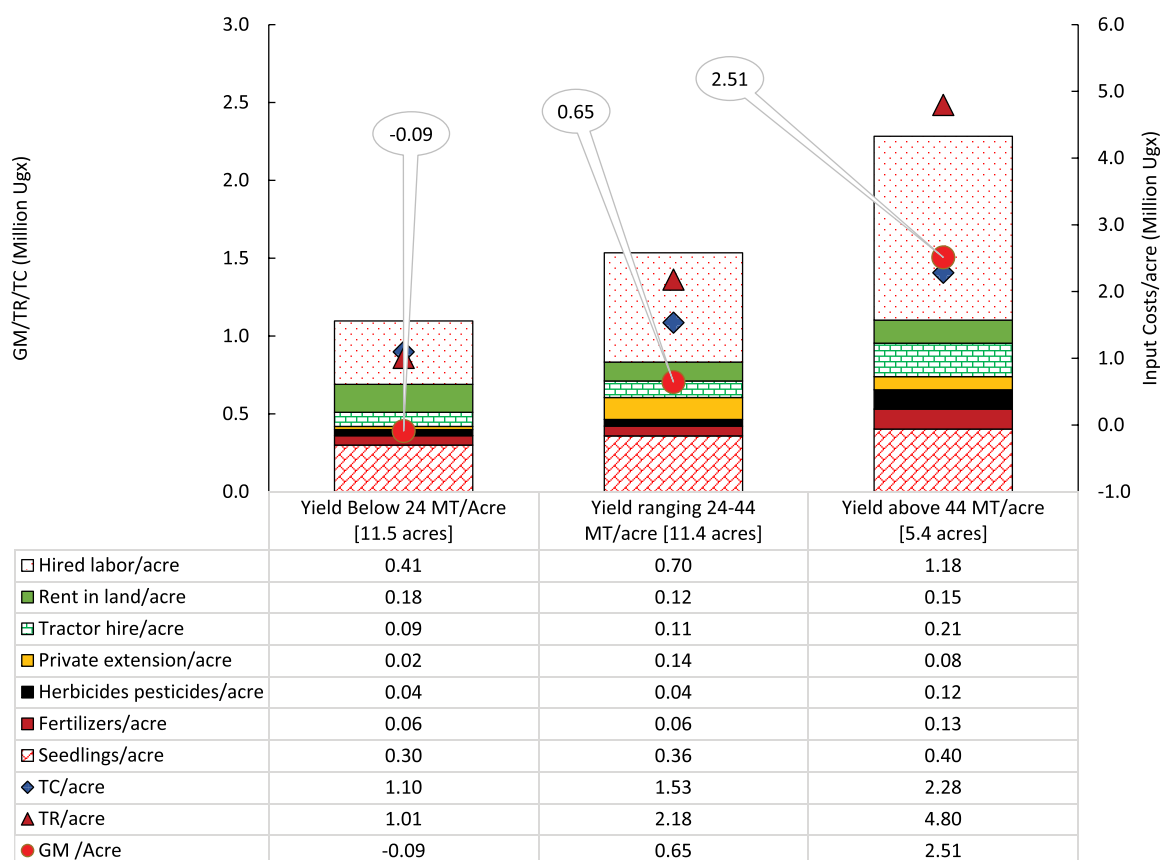
Further synthesis shows that a sugarcane farmer with a higher input investment portfolio is likely to get high yields and better gross margins of UGX 2.5 million per

acre (Figure 30). On the other hand, an outgrower's farm with low input enhancement investment regime ends up with average yield below 24 metric tonnes per acre and negative gross margins. From this analysis, it is not profitable for farmers with yields below 24 metric tonnes per acre to grow cane. For input credit financing institutions, therefore, only sugarcane farms of more than 5.4 acres under cane and capable of getting more than 44 MT/acre with inputs can be credit worthy. This makes credit financing that targets yield enhancement viable.

Table 10: Input costs incurred by sugarcane outgrowers (UGX per acre)

Inputs	Buganda	Busoga	Bunyoro	All regions
Seedlings	484,403	320,524	353,054	346,216
Fertilisers	120,360	95,598	120,818	106,860
Herbicides and pesticides	89,815	42,425	35,140	54,573
Private extension	66,352	37,731	101,619	51,558
Tractor hire	185,504	112,654	164,567	128,587
Rent in land	218,285	149,905	128,801	156,576
Hired labor	815,240	390,377	526,362	475,509
Total cost (TC) All inputs	1,979,958	1,149,214	1,430,360	1,519,844
Total revenue (TR)	2,712,617	1,916,107	3,589,619	2,299,135
Gross Margin (TR-TC)	732,659	766,893	2,159,259	799,291

Source: EPRC Sugarcane Survey (2022)

Figure 30: On-farm returns and cost profile of sugarcane (UGX/acre)

Source: EPRC Sugarcane Survey (2022)

3.1.5: Emerging Financing Challenges for Consideration and Way Forward

Like any other business venture, financing sugarcane production is not risk free. There are challenges that potential investors need to take cognizant of as these may be sources of input credit loan failure if not adequately assessed. Key among these are unstable cane prices and market uncertainty.

Unstable pricing regime. Sugarcane has experienced an

episode of persistent decline in cane prices (Table 11)⁷. Price setting has been primarily determined by miller discretion. However, when prices were lowest, millers were paying the same prices across the three regions, implying that millers have oligopolistic powers in setting and suppressing sugarcane prices paid to farmers. The observed cyclic nature of prices is likely to cause challenges in credit recovery, and input credit financing institutions find this a source of risk as, under such business circumstances, outgrowers may struggle to pay back loans and loan recovery would be a problem.

Table 11: Trends in reported regional sugarcane price trends, 2017-2021(UGX/metric Tonne)

Source	Year	Buganda	Busoga	Bunyoro
	2017	175,000	162,000	135,000
Panel A: Qualitative KIs & FGDs	2018		148,000	120,000
	2019		95,333	95,000
	2020	97,000	95,667	105,000
	2021	97,000	93,667	90,100
Panel B: Quantitative survey				
<i>Median</i>	<i>Dec 2021</i>	<i>97,000</i>	<i>95,000</i>	<i>91,000</i>
<i>Mean</i>	<i>Dec 2021</i>	<i>95,282</i>	<i>92,782</i>	<i>97,907</i>

Source: EPRC FGD Field Work (2021)

Table 12: Out-growers' participation in sugarcane harvesting and marketing (%)

Variables	Buganda	Busoga	Bunyoro	All
<i>Status of cane grown</i>				
Harvested cane in 2020/21	50.1	53.0	52.4	52.6
Cane harvested at least 17 months	54.3	52.5	39.8	51.7
<i>Cane not harvested</i>				
< 18 months	28.4	24.8	33.1	25.9
> = 18 months	71.6	75.3	66.9	74.1

Source: Mbowa et al. (2022)

Market uncertainty. The market for sugarcane has been turbulent, with over 74 percent of sugarcane farmers stuck with overgrown cane older than 18 months (Table 12). When farmers are unable to harvest cane when it is ready for harvest, sizeable amounts of their investment in the crop (inputs, labour, land) remains effectively locked-up in sugarcane fields which undermine timely payment of their loans. This has potential effect on interest charged on loans, as arrears keep accumulating even after the miller fails to buy outgrower cane at 18 months 'agreed upon' between the two parties. Worst still, some creditors even charge outgrowers with overgrown cane (over 18 months) punitive default and loan recovery fees on input loans which are unsustainable to cane growers.

Way forward. This analysis of the sugarcane sub-sector highlights the business opportunity for sugarcane input credit financing evidenced by the parallel growth in the

number of mills as a source of sugarcane market and the number of farmers growing sugarcane (that provide market for inputs credit finance). In addition, sugarcane requires high input levels for productivity enhancement, and is therefore capable of supporting a market for input credit financing.

Government should note that millers who have been the main source of input credit for sugarcane outgrowers are currently pulling out due to the breakdown in functionality of the cane registration support system. With enactment of the sugar law, there is need to revive use of registration of cane fields as the best way of sustainably supporting sugarcane production in the country. In this regard, Government should consider including financing sugarcane in the prevailing policy frameworks such as the Parish Development Model (PDM) to reduce reliance on millers. It should be noted that under the input subsidy offered under

Operation Wealth Creation, sugarcane was not prioritised. With the opportunity of the Parish Development Model of using SACCOs, Government could reprioritise sugar inputs especially fertilisers and seedlings distribution under PDM or subcounty at subsidised cost.

References

- Mbowa, S., Guloba, M., Mwesigye, F., Nakazi, F., Mather, D., Bryan E. Ogwang, A. and Atwine, B., (2022). Revisiting policy and institutional arrangements affecting sugarcane out-growers and millers in Uganda” produced for the 10th National Forum on Agricultural and Food Security, 2022.
- Martiniello, G., (2021). Bitter sugarification: sugar frontier and contract farming in Uganda. *Globalizations*. 18:3, 355-371, DOI: 10.1080/14747731.2020.179456

Endnotes

- 3 Ratooning is the agricultural practice of harvesting sugarcane by cutting most of its above-ground portion but leaving the roots and the growing shoot intact so as to allow the plants to recover and produce a fresh crop in the next season.
- 4 Nucleus estate is the part of the sugarcane plantation that is under concession and management of the sugar factories.
- 5 New millers are those sugarcane factories that started processing sugar after 2000. There are only 3 traditional millers in Uganda (Lugazi, Kinyara and Kakira)
- 6 Apart from the outlined costs (Table 3), there are invisible costs involved and these include: manual loading costs on top of the known loader machine; fuel costs visa via the distance; cutting of sugarcane and this is paid in cash by the farmer.
- 7 The third specific objective in the 2010 National Sugar Policy sets to “provide a framework for product pricing based on market forces”, a clear indication that the sugarcane pricing problem was foreseen as likely to happen, but no action has been taken to deal with it.

3.2 IDENTIFYING INVESTMENT OPPORTUNITIES IN PARISH DEVELOPMENT MODEL VALUE CHAINS

Harriet Conron¹



3.2.1: The Parish Development Model

The Parish Development Model (PDM) is the current flagship poverty reduction strategy of the Government of Uganda. Launched in 2021, the goal of PDM is to move rural households out of subsistence agriculture by increasing agricultural production and value-addition in priority commodities (see Table 13). The model seeks to bring about this change by delivering government services outlined in Vision 2040 and the National Development Plan III at the lowest administrative level – the Parish. By localising planning and administrative functions to the 10,694 Parish Councils, it is hoped that the model will bring about socio-economic transformation. The PDM has seven pillars that include; production, infrastructure and economic services, financial inclusion, social services, community mobilisation and mind-set change, data collection and governance and administration.

The programme is planned to enable citizens to decide on

what interventions they need in place to foster development and thus boost household income. Facilitating investment and increasing domestic value addition in the priority commodities is necessary for the PDM to be effective in moving households out of subsistence agriculture as noted by the Minister for Finance thus: “Successful implementation of the parish model requires ready market and value addition for the production surplus” (Kasaija 2021).

Investment can improve both the productivity of the primary sector as well as increase industrial capacity to process raw produce into higher value-added products. Both types of investment are important to spur structural transformation. i.e. improving agricultural productivity is a necessary condition for moving households out of subsistence (Herrendorf, 2014) and a dynamic agro-processing sector is critical to provide stable offtake markets for agricultural households as well as off-farm employment opportunities. In this article, therefore, evaluation is made of product-level investment

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opportunities in Uganda's PDM priority agricultural value chains for private capital and policy areas where the Government can support investment in these products.

3.2.2: Categorising Investment Opportunities Along PDM Priority Commodities

A simple market-based approach was used to categorise investment opportunities along PDM value chains in order to inform both private investment and Government policy. Following ITC (2021), trade data was used to rank Ugandan producers' supply capacity for PDM products and to analyse domestic and external demand for these products. From this analysis the most commercially viable investment opportunities for the private sector were identified, as well as opportunities for public investment and requisite Government policy needed to improve the productivity of specific value chains and unlock private capital for investment in value addition.

The original Ministerial Statement on the Parish Model specifies a list of 18 priority commodities for development. Since this Statement was released, the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) has

produced draft operational guidelines which detail the recommended production lines for each district. However, the lack of clarity on how these commodities were selected echoes poor coordination across Government agencies selecting priority value chains for agro-industrialisation (see Fowler and Rauschendorfer, 2019).

Combining contents in the original Ministerial Statement and the MAAIF draft guidance provides a total of 36 priority commodities (see Table 13). Mapping these products to Harmonised System (HS) codes for raw and minimally processed products of the value chains listed in Table 13 generates a list of 135, 6-digit HS codes (the 'unprocessed PDM products').²

3.2.3: Assessing the Production Capacity for PDM Products

To assess production capacity under PDM, assessment was made of the ability of Ugandan farmers to competitively produce the unprocessed PDM products, and the rankings of products based on their supply competitiveness. In addition, higher-value added products that could be produced from raw PDM products which Uganda is already competitive in are identified,

Table 13. Parish Development Model Priority Commodities

Coffee *	Beans *	Lemons #
Cotton *	Avocado *	Lettuces #
Cocoa *	Shea nut *	Tangerines #
Cassava	Cashew nut *	Sorghum #
Tea *	Macadamia nut *	Pineapple #
Oil palm *	Soya beans #	Mushrooms #
Maize *	Ground nuts #	Sunflower #
Rice *	Oranges #	Chicken (meat) #
Sugarcane *	Mangoes #	Chicken (eggs) #
Fish *	Tobacco #	Pigs #
Dairy *	Sesame #	Goats #
Beef *	Irish potato #	Sheep #
Bananas *	Passionfruit #	Beekeeping #

* Appears in both Ministerial Guidance and MAAIF list

Appears only in MAAIF list

Source: Author's construct

and estimate made of the existing competitiveness of these higher-value added products. In this instance, 'competitive' means that Ugandan producers can make these products at internationally competitive prices, in commercial quantities, and at industrial quality standards. As Ugandan producers do not benefit from subsidies, this definition should identify products which are strong candidates for higher value-added processing.

In the absence of sufficiently domestic production and price data, trade data was used to estimate supply competitiveness. If a product appears in Uganda's export data, it is evidence that the product meets some of the criteria for supply competitiveness. Furthermore, if a particular product's share of Ugandan exports is greater than the average share of that product in global exports, it is a strong indication that Ugandan producers supply this product competitively.³

As a start, unprocessed PDM products are classified based on Uganda's Revealed Comparative Advantage (RCA), which is a measure of export competitiveness. The RCA is defined as Uganda's share of world exports of the product divided by its share of world exports in aggregate (Balassa, 1965). A less than 1 RCA indicates that Uganda is relatively unspecialised in that product, while a RCA

above 1 indicates that Uganda is relatively specialised in exporting that product. The RCA is calculated for each HS code in the list of PDM products using 2019 trade values in United States dollars (USD) from the United Nation's COMTRADE database.⁴ Based on these calculations, products are grouped into three categories:

- i. Nascent products: Products that are not exported *at all* from Uganda (i.e. $RCA = 0$).
- ii. Emerging products: Products that are exported but in which Uganda is not yet globally competitive (i.e. $0 < RCA \leq 1$)
- iii. Established products: Products in which Uganda is globally competitive ($RCA > 1$)

For established products and emerging products with an RCA greater than 0.5, a list of 188 higher-value added products that could feasibly be produced from these raw inputs is identified (i.e. the raw product is the core input to the processed product).⁵ Following the same procedure described above, these additional products are categorised into 'nascent', 'emerging' and 'established' products. This was used to inform the demand-side analysis in 3.2 B above.

Table 14 summarises the most competitive raw products identified by this analysis and the possible opportunities

Table 14. The most competitive agricultural raw products of Uganda

PDM value chain	Detailed description	RCA	Potential downstream products
Fish	Nile perch fillets – frozen	3023.7	Fish oil, fish meal
Sorghum	Grain sorghum (other)	193.0	Ethanol, animal feeds
Coffee	Green coffee, not decaffeinated	148.1	Roasted coffee, soluble coffee
Tobacco	Tobacco, not stemmed/stripped	123.4	Cigarettes
Sesame	Sesame seeds	81.6	Sesame oil
Maize	Maize seeds	79.2	Maize flour, animal feeds
Tea	Black tea	81.1	Iced tea drinks, tea extracts
Soya beans	Soya beans, seed	71.1	Soy milk, tofu, animal feeds
Cocoa	Cocoa beans, whole or broken, raw or roasted	56.3	Cocoa powder, chocolate
Dairy	Milk and cream, 1-6% fat	43.1	Butter, cheese, milk powder, casein

Source: Author's construct

for greater value addition in Uganda.

3.2.4: Assessing Demand for the PDM Products

The demand-side analysis aims to estimate the size and growth of demand for products identified in Table 14 above, both for the domestic market and for export. While global import volumes provide a reasonably good measure of external demand for Ugandan agricultural products, imports of food products do not accurately reflect domestic consumption patterns. It is useful to think of Uganda's food imports as representing domestic demand that is not currently met by local production; bearing in mind that Uganda is a net exporter of food products, agricultural products face heavy external protection in the East African Community free trade area, and that food products are often imported informally.

The strength of demand for the PDM products is a combination of the total market size, with larger markets being more attractive investment opportunities than smaller ones, as well as the long-run growth trajectory of these markets. Market size is measured using a weighted average import value for each product over the last five years of data⁶, separately for the domestic market and for the global import market. The mean product-market size is

calculated for each market; and product markets are then categorised as 'small' or 'large' based on whether they are above or below the mean in that market. The long-run annual average growth rate for each product in each market is also calculated to determine whether markets are growing or shrinking.⁷ Products are deemed to have strong demand potential if either the domestic market or the global import market is large and growing. Table 15 lists the largest growing products in each market category.

3.2.5: Integrating Demand and Supply to Identify Investment Opportunities for PDM Commodities

The most commercial investment opportunities in PDM value chains are in products which Ugandan producers can supply inputs for competitively, and for which there are strong external or domestic demands for the final processed products. Twelve PDM value chains were identified that meet the above criteria (Table 16). For some of these value chains (cotton, dairy and tobacco), Ugandan producers are already competitive suppliers of the final products. This implies that there is already some investment in domestic processing capacity, which make investments less risky but also increase competition for new entrants in the final product market.

Table 15. The largest growing product markets

External market			Domestic market		
Product	Market size (USD b)	Market growth (%)	Product	Market size (USD m)	Market growth (%)
Soyabeans, other than seed	76.5	3.2	Semi- or wholly milled rice	27.0	14.0
Maize, other than seed	39.4	2.9	Broken rice	26.6	1.0
Boneless beef, frozen	23.5	8.2	Animal feeds, other than dog and cat food	23.2	443.8
Cheese and curd, other	20.3	1.3	Husked (brown) rice	21.2	19,947.6
Boneless beef, not frozen	18.9	3.6	Cigarettes containing tobacco	10.9	1.2
Dog and cat food	18.3	10.7	Green coffee, not decaffeinated	7.8	167.2

Source: Author's construct

Bulk commodities, being products for which there is strong supply and demand for the raw product but weak demand for higher value-added products in the value chain, may also be attractive to commercial investors. Five PDM value chains which meet these criteria were identified, namely coffee, groundnuts, pineapples, sesame and rice. These value chains display strong potential to generate export revenue. However, if the goal of the PDM is to drive value addition in addition to boosting exports then these bulk commodities should be a lower priority than the commercial opportunities listed in Table 16.

In addition, also identified were ‘sub-commercial’ investment opportunities, these being value chains for which there is strong demand for final products (raw or processed) but for which Ugandan producers are not yet competitive suppliers (Table 17). Should Ugandan producers increase their supply-side competitiveness, these products will be candidates for higher value-added investment.

3.2.6: Policy Recommendations

The ‘commercial’ opportunities listed in Table 15 should be attractive to investors based on their market fundamentals (competitive supply of raw inputs and strong demand for final products). Private investors have the right incentives to determine the most productive uses of their capital, and attempts to centrally-plan private investment is likely to result in sub-optimal allocation of capital. Empirical evidence from other lower-middle income countries suggests that direct government investment in industrial and commercial projects crowds out private investment, in both the short run and the long run (Serven, 1996).

In these value chains, the role of Government of Uganda should be limited to infrastructure investments which ‘crowd-in’ private capital (for example, upgrading roads), and policy reforms to support a competitive private sector. This includes improving market access for Ugandan products (negotiating trade agreements), providing low-cost standards certification options for exporters, and

Table 16. Commercial investment opportunities in PDM value chains

PDM value chain	Final product	Market orientation	Market size (US\$)	Long-run market growth (%)
Cassava, Maize, Sorghum & Sugarcane	Undenatured ethyl alcohol of an alcoholic strength by volume of 80 % vol. or higher	External	7.5 billion	2.0
Cocoa	Chocolate and cocoa preparations in bars, slabs or blocks, not filled	External	5.3 billion	3.8
Cotton	Woven fabrics of cotton, > 85% by weight of cotton, weighing < 200g/m ² , printed -- Other fabrics	Domestic	710,000	337.9
Dairy	Yoghurt	External	2.7 billion	0.5
Fish	Fats and oils and their fractions, of fish, other than liver oils	External	2.4 billion	3.5
Macadamia nut	Other nut pastes	External	5.6 billion	7.1
Maize, Sorghum & Soyabeans	Animal feeds (other than cat and dog feed)	External	16.8 billion	2.8
		Domestic	23.2 million	443.9
Mango & Passionfruit	Juice of any single fruit, nut or vegetable (other than citrus fruits, pineapple, tomato, grape, apple and cranberry)	External	2.9 billion	1.3
Tobacco	Cigarettes containing tobacco	Domestic	10.9 million	1.2

Source: Author's construct

Note: Only one final product is listed per value chain in the interests of brevity. Please see online appendix for the full list of investment opportunities: <https://bit.ly/3F4ucVY>

Table 17. Sub-commercial investment opportunities in PDM value chains

PDM value chain	Final product*	Market orientation	Market size (US\$ Billion)	Long-run market growth (%)
Avocado	Avocadoes	External	9.0	27.9
Beef	Beef boneless, frozen	External	23.5	8.2
Cashew	Cashew nuts, shelled	External	5.2	6.5
Chicken	Chicken cuts and offal, not frozen	External	5.3	4.8
Honey	Honey	External	2.8	3.9
Lemons	Lemons and limes	External	4.4	7.9
Oranges	Orange juice, not frozen, Brix value less than or equal to 20	External	2.4	3.2
Pigs	Pork, other than hams, not frozen	External	9.4	0.5
Potatoes	Potatoes	Domestic	0.11	36.3
Sheep	Mutton, cuts with bone in, frozen	External	3.2	2.6
Sunflower	Sunflower seeds	External	4.8	1.7
Tangerines	Mandarins, tangerines and satsumas	External	2.8	10.1

Note: As in Table 4, only one final product is listed per value chain in the interest of brevity. Please see online appendix for the full list of investment opportunities: <https://bit.ly/3F4ucVY>

domestic trade facilitation reforms to reduce the time and cost to export.

Government policy can also support improved supply-side competitiveness for the ‘sub-commercial’ opportunities listed in Table 17. To upgrade the productivity of these value chains, Government should help producers access capital for productivity-enhancing inputs, such as tractors, hybrid seeds and fertilisers, and also provide commodity-specific extension services for newer crops (e.g. avocado and cashews). Farmers may perceive newer crops to carry more risk than ‘traditional’ value chain crops. Increasing access to financial instruments that compensate for risk (e.g. weather-indexed crop insurance) may encourage more farmers to grow the newer crops at scale (Karlan, 2014). Improving the ability of producers to supply inputs competitively will also ultimately unlock private capital to drive industrialisation in these value chains.

Finally, facilitating investment in PDM value chains is vital to achieve the model’s goal of lifting rural households out of subsistence agriculture into the monetised economy. There is a strong need, however, to prioritise investment opportunities to make the most of the limited

public and private capital available. A simple market-based prioritisation framework to identify commercial opportunities for private investors has been proposed, as well as areas where Government investment and policy can support private sector competitiveness. These should be strongly considered and put into action.

References:

- Balassa, B., (1965). ‘Trade Liberalisation and ‘Revealed’ Comparative Advantage’, pp. 99 – 123 in *The Manchester School* Volume 33.
- Fowler, M. and Rauschendorfer, J., (2019). ‘Agro-industrialisation in Uganda: Current status, future prospects, and possible solutions to pressing challenges’. *International Growth Centre Working Paper F-IH-UGA-006-2*, International Growth Centre, London.
- GoU, (2021). ‘Parish Development Model – Operational Guidelines’. Ministry of Agriculture, Animal Industries and Fisheries, Entebbe.
- Herrendorf, B; Rogerson, R. and Valentinyi, Á., (2014). “Growth and Structural Transformation” in Aghion P and Durlauf S (eds) *Handbook of Economic Growth, Volume 2*, North Holland.

ITC, (2021). 'Identifying agricultural and agrifood products with potential for production and commercialisation in Iraq'. International Trade Centre, Geneva.

Karlan, D, Osei, R, Osei-Atoko, I, and Udry, C., (2014). 'Agricultural Decisions after Relaxing Credit and Risk Constraints', pp. 597 – 692 in *The Quarterly Journal of Economics* Volume 129 No. 2.

Kasajja, M, (2021). 'Ministerial Statement on Parish Model', Ministry of Finance, Planning and Economic Development, Kampala.

Sánchez, M.V., Cicowiez, M. and Pereira Fontes, F., (2022). "Productive public investment in agriculture for economic recovery with rural well-being: an analysis of prospective scenarios for Uganda". *FAO Agricultural Development Economics Technical Study No. 16*. Food and Agriculture Organisation, Rome.

Serven, L., (1996). 'Does Public Capital Crowd Out Private Capital? Evidence from India', *World Bank Group Policy Research Working Papers*, World Bank Group, Washington DC.

base year are coded as 'growing' if they have imports recorded in the final year of data.

Endnotes

- 2 For example, 'Fish' is mapped to 26 different 6-digit HS codes covering the main species of fish caught and farmed in Uganda in various raw and minimally processed preparations. This mapping is based on my own understanding of agricultural production in Uganda, and is ultimately subjective.
- 3 There are many reasons why export data may not perfectly capture supply competitiveness - the export of some products is blocked by technical standards and/or SPS issues (e.g. Ugandan beef exports are blocked from many markets due to the presence of Foot and Mouth Disease), tariff barriers and transport costs can be prohibitive, or local consumption patterns may mean that the product is domestically-oriented (e.g. matooke).
- 4 2019 is the most recent year of data available for Uganda – for comparability we also use 2019 data for all other countries. This has the added advantage of minimising distortions due to restrictions imposed to curtail the spread of the COVID-19 pandemic.
- 5 This list includes products which are already made in Uganda (e.g. cotton textiles) as well as products which Uganda does not yet have the manufacturing capacity to produce, but which could be made from competitively-supplied raw inputs (e.g. instant coffee). This assessment is informed by the author's knowledge of Uganda's agro-processing industry, but is ultimately subjective.
- 6 Data are weighted such that each subsequent year is equal to double the previous years' weight. To reduce the impact of COVID-induced supply chain disruptions on this calculation I manually reduce the 2020 weight to one-fifth of its assigned weight, distributing the remainder evenly across the other four years. The data span 2017-2021 for global markets and 2014-2019 for Ugandan imports.
- 7 Disaggregated product import volume data are not available over ten years for all products due to revisions in the HS classification system. I use 2011 as the base year for most products, 2014 as the base year for products added in the 2012 HS revision (42 HS codes), and 2017 as the base year for products added in the 2017 HS revision (2 HS codes). Products which were not imported in the

3.3 LEVERAGING THE VILLAGE-BASED AGENT MODEL TO INCREASE COMPETITIVENESS OF LOCALLY PRODUCED RICE

Rachel Ajambo¹



3.3.1: Status of Agri- Micro, Small and Medium Enterprises

The Micro, Small and Medium Enterprises (MSME) sector plays a significant role in driving private sector-led economic growth and development, such as creation of employment, innovations, wealth, and income generation in Uganda. As the country pursues a private sector-led economic policy approach, this puts the private sector at the forefront of the growth and development of the country. The MSME is dominant in the Agri-private sector, with over 94 percent of private sector enterprises being micro and small businesses. These provide employment to over 8.5 million people, equivalent to 90 percent of the total non-farm workers of the entire private sector, and generate more than 80 percent of manufacturing output, and contribute about 75 percent to the Gross Domestic Product (GDP) (Master Card Foundation, 2022)

Ugandan smallholder farmers, who are the largest private sector in agriculture, account for more than 90 percent of all agricultural production in the country (NPA, 2013). However, they are often resource poor, farm less than one-hectare of land, and have limited or no access to Business Development Services (BDS) such as input and production financing, mechanisation or guaranteed markets.

In the case of the rice value chain in Uganda, persistent interventions, including development of production schemes and new rice varieties, have been undertaken. Despite persistent and substantial investments made in the rice value chain, however, several bottlenecks and challenges remain. Key among them are: (i) limited investment at farmer level to facilitate higher production volumes; (ii) poor quality of supplied paddy for processing owing to poor postharvest handling; (iii) low supply volumes translating into capacity utilisation of less than 40 percent at most mills/plants; and (iv) high energy costs (UGX 500/KWH) with frequent load shedding.

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It is against this background that USAID funded, via Alliance for a Green Revolution in Africa (AGRA), the three-year Competitive African Rice Initiative (CARI-EA) Project in Uganda, Kenya and Tanzania, to sustainably upgrade the rice value chain and enable value chain actors to harness the opportunities therein. In Uganda, the intervention is implemented using the Village Based Agent (VBA) model. This article highlights the role of agri-SMEs in job creation for local communities in Uganda; provided the right partnerships and relationships are established, in respect to the rice value chain.

3.3.2: The Inclusive Approach to Improving Competitiveness of Locally Produced Rice

A case study of one of the successful business consortia that was built in Uganda through the implementation of the Competitive African Rice Initiative Project (CARI-EA) 2019 – 2022 is hereby examined. CARI-EA was an upscale of the already tested CARI 1 Project implemented in Tanzania that tested an innovative Consortium Approach with embedded Village Based Agents (VBAs) to efficiently link small- and medium-scale farmers (SMSFs) to output and input markets between 2014 and 2018. The VBA embedded Consortium Approach connects all actors along the value chain, thus integrating Small and Medium Scale Farmers (SMSFs) into agribusiness in a way that enables them to utilise capacity building as well as financial and other business development services, including mechanisation.

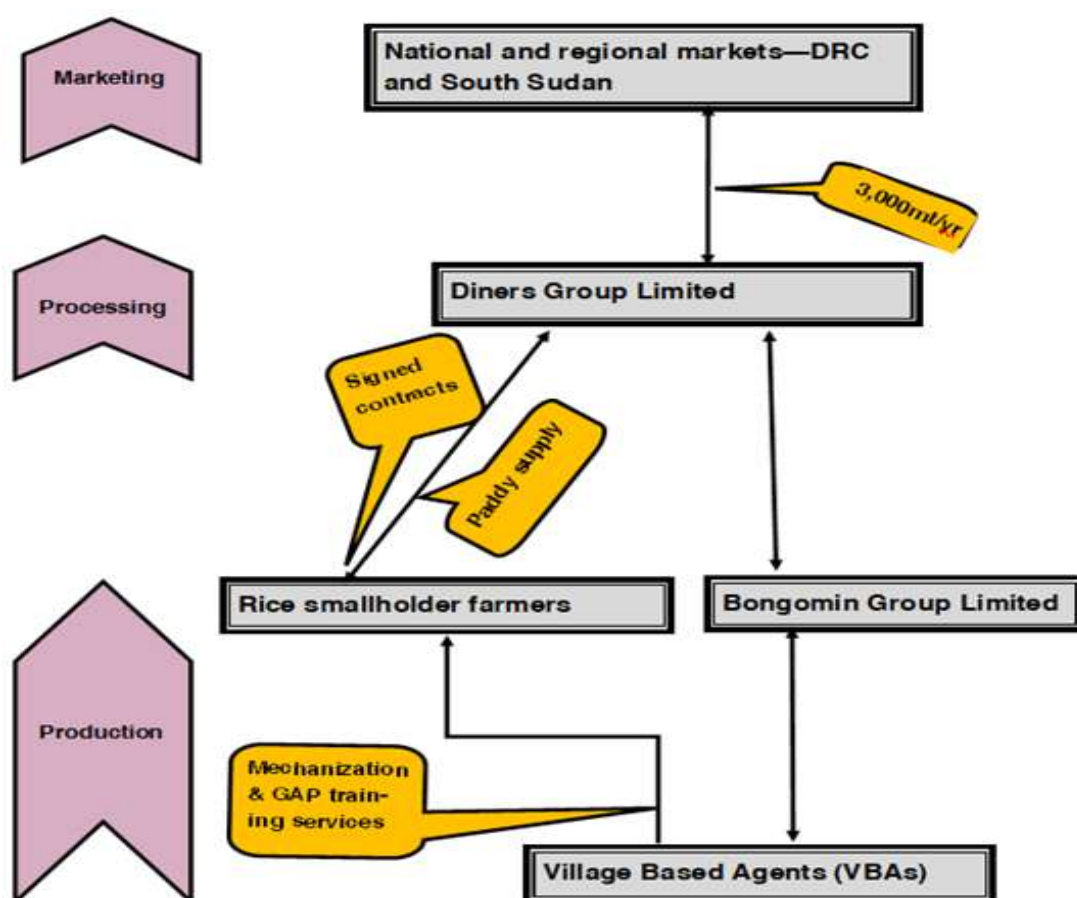
In Uganda Diners Group Limited, a rice milling SME located in Mbale District, partnered with Bongomin Group Limited, another private SME providing training and mechanisation services via a network of youth Village-Based Agents (VBAs), and implemented the Development of Rice Markets in Eastern Uganda (DeCoRM) Project. The company co-invested USD 57,000 along with the CARI-EA's USD 95,000 resulting in total project budget of USD 152,000 with a goal to: (a) increase farm level productivity from 2.9 to 4.9 MT/Ha, (b) increase the quality of paddy

produced by engaged farmers, and (c) increase access to finance for engaged smallholder farmers. To achieve this, the two companies mobilised 25 youth VBAs and engaged more than 7,000 smallholder rice farmers in Bulamuli, Mbale and Butaleja Districts.

3.3.3: Implementing the VBA in Uganda to Boost Rice Productivity

The Village Based Agent (VBA) model was implemented in Uganda with funding from USAID via AGRA, with Kilimo Trust as the implementing agent (Figure 31). The VBA model is where village agents are deliberately targeted by interventions or programmes to play the critical role of last mile services to farmers where other value chain actors cannot reach or find the economies of scale too low to make business sense. A village agent is a local community service provider who can bridge the gap between producers and value chain actors by providing last mile services such as inputs, extension messages, aggregation services, among others. Farmers are usually organised in smaller groups e.g. at Rural Producer Organisation (RPO) or Association level in order to access services from the VBA. Typically, a single VBA will work with not less than 3 RPOs for him/her to make business sense from the service delivery.

In Uganda, Kilimo Trust on-boarded six consortia each led by private sector actors in the rice value chain; five of which were rice milling companies and one was an inputs company. Kilimo Trust facilitated the process of institutional capacity building among DeCoRM partners, which saw more than 7,000 paddy smallholders integrated in the supply chain of Diners Group Limited (DGL) by April 2022. The institutional capacity building involved various assessments for the SMEs involved in this partnership, including (a) organisational capacity assessment to ascertain skill set of the millers and business managers; (b) detailed assessment of the Diners Group Mill layout in order to draw conclusions on whether the layout was the most optimal; (c) exposure visit for the SME operators and managers to neighbouring Kenya to learn from their best

Figure 31: Diners Group Limited VBA Business Model

Source: Authors construct

practices; and (d) training of the managers and operators on milling efficiency, business management and record keeping.

DGL is a private rice processing plant with a potential processing capacity of 9,000MT per year. At the beginning of the project in 2019, DGL's annual processing volume was only 2,000MT representing 22 percent of installed capacity. This grew to more than 3,000MT in 2022, representing a growth of 50 percent in milling outturn due to guaranteed supplies from smallholder farmers and demand from newly established lucrative markets in DRC and South Sudan. To achieve this progress, farmers were trained on: (i) good agricultural practices for rice production; (ii) farmer business skills and financial literacy; and (iii) good postharvest practices. They were

also provided with storage facilities to aggregate paddy. These trainings and support, combined with the assurance of guaranteed markets, enabled farmers to supply DGL with good quality rice for milling.

Based on this experience, Diners Group Limited in Uganda, facilitated by Kilimo Trust, now aims to integrate 7,015 rice farmers (2,100 women) into the company's supply chain in the districts of Bulambuli, Mbale and Butaleja. The districts were chosen by the company for sourcing since they made a radius of less than 50 kilometres from the company's milling facility located in Mbale City. This is consistent with the aim of CARI-EA Project in Uganda to: (a) support the transformation of 50,000 smallholder-farming households; (b) impact six SMEs of millers-agro-processors and supplies of inputs and technologies-

together estimated to employ about 200 women, men and youth; (c) assure the systemic change in rice market trading, with rice products, financial, inputs and knowledge systems developed. It also seeks to contribute through spill-over effects up to 10 percent structuring of the entire rice sector in Uganda.

3.3.4: Progress Achieved in Project Implementation, VBA Model Impacts, and Outlook

DGL implemented the Village Agent Business Model where the company partnered with Bongomin Limited and recruited VBAs as part of their implementing partners. From the CARI-EA Project evaluation, it was confirmed that DGL worked with over 7,000 farmers and over UGX 200 million (USD 55,000) was accessed by farmers from Micro Finance Support Center (MSC), Post Bank and Finance Trust Bank as inputs and production finance. This financing enabled farmers to purchase inputs such as improved seed and fertiliser that facilitated higher production volumes and productivity from the farms (Table 18).

Table 18. Rice Yield Increment

Year	Yield t/ha Irrigated	Yield t/ha Rainfed	Average Yield t/ha
2019	3.25	2.1	2.7
2020	3.5	2.2	2.9
2021	4.0	2.4	3.2

The 25 VBAs who were engaged by the Project conducted inputs distribution to farmers, in addition to trainings on rice Good Agronomical Practises (GAPs) and Good Post Harvest Handling Practises (GPHHPs) thus improving the volume and quality of paddy. With increased supply of paddy, DGL also expanded their milling outturn by 50 percent resulting in the company's milled rice capturing bigger markets in the neighbouring countries of DRC and South Sudan.

The increased yields were accompanied by higher farmer incomes, from UGX 2.5M (USD 681/ha) in 2019 to UGX 3.9M (USD 1,085/ha) in 2022. Other notable impacts that resulted from implementation of the project included: (i) creation of 25 jobs for VBAs; (ii) more than 6,000 farmers supplying paddy to DGL via structured contractual arrangements; and (iii) creation of sustainable markets for smallholder farmers.

Kilimo Trust having implemented the CARI project in Tanzania over four years (2014-2018) provided critical lessons learned and experiences that were highly appreciated by development partners, Governments of the partner States and private sector partners. This is the reason why USAID via AGRA provided USD 3.1 million to up-scale the project across other regions of Tanzania, Uganda and Kenya, with the DeCoRM sub-project in Uganda being one such upscale initiative out of the 21 implemented throughout the EAC Region.

3.3.5: Lessons Learned and Way Forward

From implementation of the DeCoRM rice value chain support Project, key lessons were learnt that if applied with appropriate policy initiatives to on-going efforts to transform smallholder agricultural production in Uganda, such as the Parish Development Model (PDM) initiate, will help the achieve its goal of commercializing the agriculture sector, modernising its economy and transforming to a modern country. The key lessons learnt and recommendation for way forward are outlined below.

- (i) Current rice production practices in Uganda is time consuming laborious. Mechanising key activities, e.g. ploughing, rotavating, harvesting and threshing have the potential to reduce hours required by 50 percent while significantly reducing costs. This change needs to be widely supported.
- (ii) The issue of water for production in rice, i.e. supporting irrigation schemes cannot be overstated. Because Climate Change can no longer be ignored and drought is a leading cause of reduced yields among rice paddy farmers, with Uganda's many

rivers and huge fresh water bodies, long strategies should be considered and implemented by the Government to ensure sufficient water supply for sustained growth and high productivity of the rice sub-sector in the country.

- (iii) There is need to support access to aggregation infrastructure, particularly household and central storage facilities, near the farmers who are not in well-organised irrigation schemes for bulk purchasing and further reducing transaction costs for millers. This will increase margins to farmers and millers while increasing competitiveness of locally produced rice.
- (iv) Access to agricultural financing for smallholder farmers remains a major challenge affecting most of the rice value chain in the EAC. Capacity building of value chain actors to qualify for financing especially FBOs remain remains a critical bottle neck. Easing access to financing for farmers, such as under the Emata App initiative, needs to be vigorously pursued.
- (v) Millers are also a good “gateway” for financial institutions to lend to farmers. This business model should be emulated by other development partners working on access to finance for smallholder farmers. In Uganda, the initiative has abled increase production and productivity through production support and introduction of high yield rice varieties, through increased access to inputs and finance brokered by DGL.
- (vi) National and Regional verified rice sector statistics are critical in guiding EA partner States on initiatives geared towards increasing inter-regional rice trade. The importance of such data base is illustrated by the case of a Ugandan company that obtained USD 4.5 Million tax break to import 400,000MT of rice into the country based on inaccurate statistics on production and supply, which led to depressed prices for local farmers.

that farmers who were part of the consortium are willing to continue production is a testament to the effectiveness of the approach under the Project.

Since the end of the DeCoRM Project in April 2022, farmers have continued to supply paddy to DGL. The fact

3.4 RECENT DEVELOPMENTS IN UGANDA'S WAREHOUSE RECEIPT SYSTEM

Christian Baine¹



Picture credit: Bank of Uganda, ACF progress report. September 30, 2022

3.4.1: Background

Warehouse Receipts (WR) have been defined as documents issued by warehouse operators as evidence that specified commodities, of stated quantity and quality, have been deposited at locations by named depositors (Coulter and Onumah, 2002). The depositor may be a producer, farmer group, trader, exporter, processor or any individual or body corporate. The warehouse operator holds the stored commodity by way of safe custody; implying they are legally liable to make good any value lost through theft or damage by fire and other catastrophes but have no legal or beneficial interest in it. Also, in case of liquidation, the warehouse operator's creditors will not be able to seek recourse to the commodities stored as legal title remains with the depositor or *bona fide* holder of the receipt. The only exception is the warehouse operator's lien covering outstanding storage costs.

In Uganda, inventory-based lending using WRs began in the 1990s where non-negotiable receipts were issued

by international logistics companies played the role of collateral managers under tripartite collateral management agreements (CMAs). These arrangements were regulated under a bailment regime under English common law. Access to the CMA system in the agricultural commodity sector was however restricted to relatively larger players. Small-scale farmers and traders were largely excluded.

Between 1996 and 2016, the Government of Uganda initiated several national initiatives to develop a more widely accessible WR system, initially targeting the coffee and cotton sectors. Some of these include establishing the Uganda Commodities Exchange (UCE) to support the WRS pilots in the coffee and cotton value chain. In 2000, Government under the Plan for Modernisation of Agriculture (PMA), extended the WRS to cover other commodities, including maize, paddy rice, coffee, cotton and beans. Later, Government enacted the Uganda Warehouse Receipt System Act 2006, and established the Uganda Warehouse Receipt System Authority (UWRSA) to develop and regulate public WRS initiatives in Uganda among others. In addition, it promoted private sector initiatives by the Uganda Cooperative Alliance at creating a National

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Commodity Exchange to catalyse the development of receipt-based trading in agricultural commodities. Despite these national responses, some of the later interventions, such as creation of a WRS linked to a separate commodity exchange (COMEX), were unsuccessful.

A study undertaken by Financial Services Volunteer Corps (FSVC)² reported that countries that have been most successful in creating sustainable commodity trading platforms have engaged the private sector to manage these efforts while retaining regulatory control. Such platforms rely on private sector financing, freeing government and donor funding to focus on supporting the creation of the regulatory frameworks to attract investments and uptake of the system by the financial sector. This article reviews recent developments that have been undertaken by the private and public sectors, as well as support from the donor community, to develop the WRS in Uganda. It also examines the effectiveness of these initiatives, and highlights several existing regulatory, institutional and infrastructural challenges faced in the implementation of the WRS in Uganda.

3.4.2: Update on Recent National Initiatives to Develop the Uganda Warehouse Receipt System

The progress to developing the delivery mechanism that will underpin the development of the warehouse receipt system in Uganda has been anchored around the strengthening of the country's policy, institutional and regulatory frameworks to guide and regulate functions and to provide sound platform for rational and orderly development.

The regulatory, institutional and policy framework. The Warehouse Receipt Systems Authority Act of 2006 provides the regulatory framework for the operation of warehouse receipt systems in Uganda. The law prescribes the functions of the regulatory agency -Uganda Warehouse Receipt Systems Authority (UWRSA); the organisation of the governance of the regulatory body; requirements for

standards and licencing of warehouses and warehouse operators to start issuing warehouse receipts; conditions for issuing warehouse receipts to owners of goods; and details for warehouses inspection. Other activities include capacity building, training, skilling and mobilisation of the target small holder farmers who are expected to benefit from this programme.

In 2015, following various internal reviews,³ the Ministry of Trade, Industry and Cooperatives (MTIC) decided to remove the functions of the Authority from the Uganda Commodity Exchange (UCE) and set up a substantive UWRSA with a Board of Directors appointed in line with the WRS Act 2006. The Board was tasked with developing and implementing the policy framework for a functional WRS in Uganda. Since then, the UWRSA largely focused on delivering training and skilling programmes for farmers⁴, establishing a national management information system, training commodity handlers on the safe use of agricultural chemicals and undertaking a national survey of storage infrastructure in Uganda. These, however, like several others it has been implementing, are not core activities required of the Authority under its mandate.

In this regard, there has not been much progress on the core functions of the Authority which are to license warehouses and warehouse operators, and to institute an inspection regime for warehouse operations in Uganda all of which are vital to supporting inventory-based credit systems. Since 2015, when the UWRSA was instituted, no warehouse facility or warehouse operator has been licensed or certified, respectively.

Besides the Authority, Government has continued to put in place various policies to support the UWRSA and the development of WRS in Uganda (Table 19). The supportive policy frameworks include National Development Plan, National Trade Policy, National Grain Trade Policy, National Agricultural Policy to name a few. While these policy frameworks address various issues relating to post-harvest losses, grain quality, warehouse infrastructure, market information systems, value addition, marketing

of grains and improving access to credit, several implementation gaps persist.

Following from, 2016, more recent reforms in the WRS have involved a review of the WRS Act by the Uganda Law Reform Commission (ULRC) in 2018, with a view to making it more responsive to the requirements for facilitating access to agricultural finance and markets by small scale producers. To this end, particular emphasis has been placed to changing the governance structure of UWRS to be more representative of the stakeholders in the trade and finance sectors, widen the scope of the Authority's mandate to include support for warehouse infrastructure development, and linking WRS activities to enable linkages to commodity exchanges and making the warehouse receipt a tradeable asset in the financial markets. The draft proposals of the Commission are expected to be released in May 2023.

The National Development Plan III (2020/21 – 2024/25). Whereas there is no specific mention of the WRS in NDP III, one of its key development programmes is Agro-industrialisation where the key objectives prioritised are to: (i) improve post-harvest handling and storage; (ii) improve agro-processing and value addition; (iii) increase market access and competitiveness of agricultural products in domestic and international markets; (iv) increase the mobilisation and equitable access and utilisation of agricultural finance; and (v) strengthen the institutional coordination for improved service delivery.

These objectives by themselves are important ingredients in the development of a functional WRS which if implemented will create the enabling environment for investor confidence in this regard.

Parish Development Model (PDM). Another related key

Table 19. Summary of review of recent supportive policy frameworks for commodity trade in Uganda

Policy	What it says about WRS	Gaps	Opportunities
National grain trade policy 2015	Objectives and interventions are explicit on WRS especially as it concerns grain	Deficient of a detailed intervention on WRS	This policy set targets on WRS, interventions to include women and youth, and smallholder communication challenges The policy was recently reviewed in 2021/2022 with support from USAID to update the various strategic interventions and align them with NDPIII
NDP III	Limited storage capacity impedes effective commodity trade. Country is unable to address agricultural price volatility	Quiet on specific interventions for availing finance through WRS	The PDM has prescribed 2 pillars that will support access to markets and financial inclusion for small holders
Vision 2040	Some policy actions are in line with WRS especially those on market access, standards, rural financing schemes, market infrastructure, and cooperatives	Does not mention WRS, only implied through some policy actions	
National trade policy 2007	Policy actions such as those on standards, value addition, sanitary and phytosanitary may relate to WRS	The use of receipts for finance is not mentioned	Notes that Uganda imports cereals to a tune of USD 106.7m. Full development of WRS may reduce the import bill on cereals

Policy	What it says about WRS	Gaps	Opportunities
National Agricultural policy 2013	Acknowledges the role of WRS in building Farmer groups' capacity in marketing. Warehouses and silos required for policy strategies on marketing and quality assurance	Policy actions are lacking of an intervention on WRS	Acknowledges that MAAIF and MTIC should work collaboratively to increase coverage of WRS
WRS act of 2006 and regulations of 2007	Explicitly prioritises the WRS authority. Expounds deeply on WRS governance and the authority's engagement with the private sector		If regulations are strictly followed, glitches in implementing the WRS will be minimised

Source: Updated from Katunze et al. (2017)

Government programme that may have implications on the development of WRS in Uganda is the Parish Development Model (PDM). The PDM is a development approach anchored on seven pillars that was conceived under the NDP III and prescribed by the NRM Manifesto 2021 – 2026. Two pillars concerning production, storage, processing, and marketing as well as promoting financial inclusion underpin this prospect. It is hoped that these pillars will help build the infrastructure and systems necessary for WRS to establish a key function of supporting produce marketing and agro-processing activities of Uganda.

The Ministry of Trade, Industry and Cooperatives has been drafting a Produce and Marketing legislation that would create a Government agency tasked with supporting government measures to regulate commodity trading in Uganda. The bill has however been stayed because of the

recent policy on rationalisation of Government agencies.

3.4.3: Progress Towards Financing Uganda's Warehouse Receipt System

Beyond the policy, regulatory and administrative issues discussed above, the other key issue is financing WRS development, including private sector participation and donor support.

(a) Public financing towards WRS development.

In Uganda, public financing towards the development of a warehouse receipt system has, since 2015, been through Government appropriations to the UWRS through MTIC. The activities of the UWRS, which are supervised by MTIC (Table 20), cover four broad areas namely, licensing, inspections, capacity building and sensitisation or mobilisation of the various stakeholders.

Table 20: Budget allocations for trade and marketing related activities, UGX billions (2015/16 to 2021/22)

Sector	Specific Intervention Areas	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
MTTI	Uganda National Bureau of Standards	3.28	3.68	9.58	47.84	68.94	68.94	65.04
	Uganda Warehouse Receipt System	0.00		0.15	3.40	3.40	0.00	0
Min. of Local Govt.	Markets and Agricultural Trade Improvements Programme (MATIP 2)	20.48	75.15	104.60	101.17	6.48	160.01	329
		23.76	78.83	114.33	152.41	78.82	228.95	394.04

Source: Authors compilation from various MoFPED reports, 2022

Every year, Government allocates funding towards the implementation of these activities, but this funding has remained insufficient and intermittent (Table 20). Over the last 7 years, nearly 60 percent of the allocations have been spent on building the capacity of privately owned warehouses that have applied for licences from the authority, for them to meet the physical and operating standards required for undertaking WRS.

For the Authority, funding has typically been channelled setting up of quality assessment laboratories and purchase of weighing equipment, including platform and bridges, moisture meters and pest management kits and equipment. In addition, approximately 30 percent of this finance has been used to strengthen the security systems and physical structures at the warehouses, while the rest of the funds (10%) was utilised for skilling the staff at the technical warehouses, including graders, handlers, samplers and weighers (10%) for running the operations of the Authority.

Recently, controversy arose regarding allocation of public funds to repair storage facilities and provide metrological infrastructure for privately owned warehouses. Parliament was concerned that funding of these activities would have a detrimental effect on the execution of the mandate of UW RSA, by concentrating more on establishing warehouses rather than implementing the provision of the objectives of the Act. It is anticipated, however, that this issue will be resolved during the reform process currently being undertaken by the ULRC.

(b) Private sector funding towards WRS development. Until recently, funding by the private sector for WRS was not specifically targeted at WRS development until, recently following, the creation of the Grain Council of Uganda (TGPU) and its subsequent collaborations with the UW RSA.

In November 2022, TGPU, Uganda Cooperative Alliance (UCA) and Uganda National Farmers Federation (UNFF) and UW RSA signed a Joint Action Plan (JAP) to coordinate

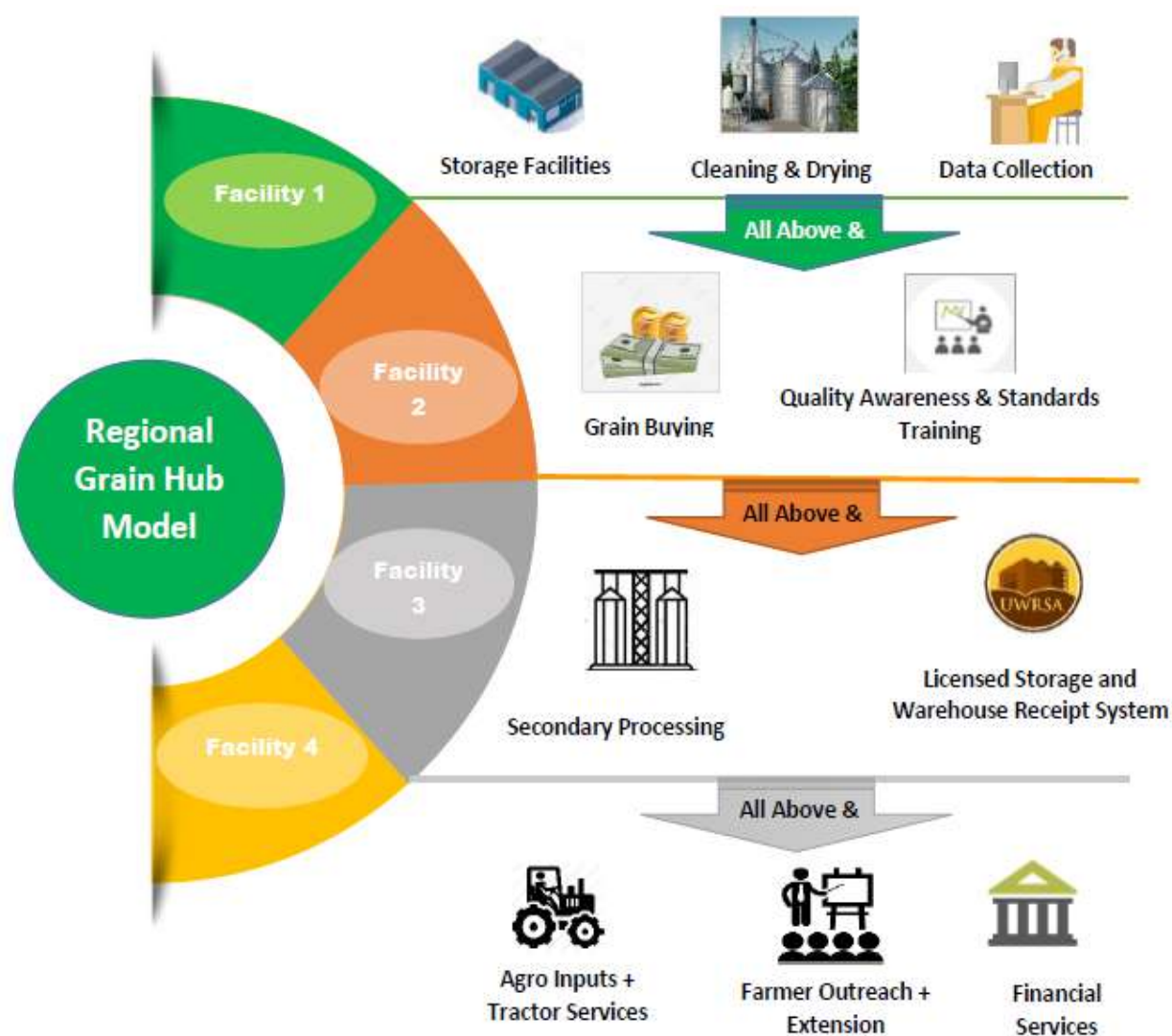
their various activities to support the development of WRS in Uganda. Following this cooperation agreement, the Grain Council of Uganda (TGPU) created the Regional Grain Hub model to promote wholesome grain storage and processing systems and to develop the capacity of especially large warehouse owners to manage large volumes of grain in an institutional framework.

The hub model consists of regionally distributed grain processing firms that act as farmer supply stations or hubs where multiple services are under one roof or location. TGPU already has 15 operational hubs with another 5 to 10 planned. The hub model is based on the hierarchy of operations where the off-takers in the hub offer an increasing number and complexity of services to farmers, including cleaning, drying, storage, data collection services, grain buying and quality awareness dissemination, licensed storage (warehouse receipting) and production extension support.

In the JAP, participating warehouses will be developed into regional hubs to provide various services and links to their members, anchored on a WRS systems as illustrated in Figure 32 above. TGPU has already provided names and locations of 15 warehouses that have been proposed to participate in this arrangement, and from where 60 farmer groups at each warehouse are expected to be facilitated.

(c) Donor related support towards development of WRS. Various donors have identified access to finance as a key challenge constraining business expansion and growth by the private sector. Recently, some of them linked up with the UW RSA to bring together stakeholders to work on interventions that could help improve access to finance. The International Finance Corporation (IFC) also recently collaborated with the Uganda Warehouse Receipts System Authority (UW RSA) to put together an advisory programme to support the development of warehouse receipt system financing in Uganda.

UW RSA is working with IFC to resolve one of the key obstacles of Access to Finance (A2F) in agriculture-

Figure 32: TGPU Regional warehouse operating model

Source: The Grain Council of Uganda

this being the use of traditional collateral by banks (usually real estate/land) which is challenging for clients in agriculture- and opt for commodity collateral backed by warehouse receipts. UWRS is also collaborating with IFC under this project to fund skilling programmes for staff at participating commercial banks in addressing the perceptions. These discussions are currently ongoing under the coordination of the IFC Uganda Country Office and UWRS.

3.4.4: Progress regarding Infrastructure Development for the WRS

Beyond policies, laws and regulation the bases for a

functioning and effective warehouse receipt system are the numbers and volumes of warehouses and their spread to attract and meet demand countrywide.

(i) **Installed WRS infrastructure.** Infrastructure development for the WRS has been largely undertaken by private sector grain traders and processors to set up storage facilities and processing equipment. However, it is mainly the medium and large-scale operators that can afford to finance the storage and operating standards required for operating a WRS. The available supportive infrastructure to WRS in Uganda is presented in Box 2 below. To-date TGPU has a membership of over 140

firms, representing all sectors in the grain value chain; and nearly 25 of these have invested in storage and processing facilities that meet WRS standards.

Box 2: Summary of the current WRS installed capacity

- The current total installed processing capacity in Uganda is about 9,120 MT/Day
- Current storage capacity that meets WRS standards is 750,000MT.
- Capacity utilisation – 5 months a year (24 days a month) = 120 days
- Utilisation depends on working capital (fuel, electricity requirements for drier and the processing cost per MT)
- Processing cost per Kg is between UGX 90 – 120 / Kg, overheads UGX 70/Kg and a margin of UGX 20 – 30/Kg
- Resulting total capacity utilisation is between 40 – 80 percent (maximum) at which point the processor will consider expansion
- The ex-works price of a complete unit i.e., processing machine, drier and storage with a 1000MT storage capacity is USD 450,000

Source: Grain council of Uganda

(ii) Progress on geographical location of WRS infrastructure. In February 2021, UWRS launched a regional profiling exercise for all the agricultural commodity storage infrastructure in Uganda so as to update existing data on WRS storage facilities in the country. This exercise, which is still on-going, having been delayed by the COVID pandemic, seeks to establish the number, size, capacity, utilisation, equipment, ownership, accessibility, amenities, storage practices, accessibility to financial services, and state of the existing storage infrastructure in the country, and to establish if the existing structures meets the WRS standard technical requirements.

During the exercise, UWRS is also profiling existing cold storage facilities for perishables commodities including fruits and vegetables, and also use the opportunity to advise storage owners on what they need to do to improve their standards if necessary. The exercise will also inform

on which commodities are produced in which regions of Uganda and regional agricultural capacities; and is expected to be completed by October 2023.

3.4.5: Persisted Challenges in the Operation of the WRS in Uganda

There exists several gaps and challenges with the regulated WRS that continue to constrain its uptake and investment at the upstream level of the commodity value chains. Among these are limited awareness, poor storage capacities, use demand, enforcement of standards and skilling of players.

(a) Limited awareness about the operation of the WRS. While the UWRS has been operational since 2015, there has been very limited awareness of its existence, roles and activity, and country-wide awareness of the role WRS can play for the agricultural value chain actors. As such, only limited growth in the use of WRS has been registered in the country. As for the UWRS, its activities have since then been largely focused at institutional capacity building and training, and none of the nine warehouses that submitted applications for licensing in 2015 has been licensed. Because of lack of awareness, since the law was enacted in 2006, there has not been any significant achievement with respect to facilitating access to credit by small holder farmers or creating formal markets for quality commodities, and no bank has yet developed a loan product for financing electronic receipts.

(b) Lack of standardised storage facilities. The WRS Act prescribes various criteria and standards for licensing of storage facilities to be used for WRS operations. These include working tools such as computers, quality assessment equipment, pallets, technical staff, warehouse infrastructure, insurance etc. that facilitate WRS storage management and holding operations. With many warehouse owners unable to afford such upgrade requirements, most continue to operate in the traditional way, primarily focusing on middlemen and farmer levels.

(c) Lack of viable cooperative societies. This mainly relates to the lack of trained staff and the professionalism with which these societies engage in their businesses. WRS business whether to access credit or markets requires that the depositors are organised, have legal status and are able to transact on commercial basis. Without a cooperative approach, Uganda's largely small-scale farmers will find little value in the WRS.

(d) Grades and Standards. In order for the WRS system to operate, there needs to be a mechanism not only for setting and analysing standards set by the competent authority⁵ but also for enforcing them. UNBS, the Government authority mandated to set quality standards however currently does not have the resource capacity to maintain and enforce these standards at all the warehouse locations.

(e) Skilling of commercial banks. Warehouse receipts have the potential to open up the possibility of new businesses and an expanded role in the agricultural sector for financial institutions. It is often said that banks are primarily motivated by profit. This, however, is often not the case especially where when financing agriculture they focus on the risk profile of the transaction before getting involved. Even then, banks always demand land and other physical assets as collateral that most rural farmers do not have. Building cooperative capacity of rural farmers to warehouse will be a game changer. On their part, banks must upgrade internal procedures to effectively on board and manage the new collateral and lending requirements.

3.4.6: Policy Options and Way Forward

Recently, Uganda was selected among the countries that will undertake evaluation of risk-adjusted measures⁶ to improve access to credit for small scale farmers in the agricultural sector⁷. The adoption of WRS in Uganda can facilitate the implementation of these measures. WRS involving farmer groups allow aggregation of grain storage in food-safe conditions in silos and warehouses. This provides guarantee of product quality by storage-facility

owners, where produce stored under legal regimes can be used by farmers as collateral to access working capital from financial institutions, and facilitate the creation of formal commodity exchange markets.

Various attempts have been made to improve and develop the WRS initiative, including strengthening the policy and regulatory framework for the warehouse receipt system. However, these efforts have only just started and it will take time for the agricultural sector to start experiencing the effectiveness of these undertakings. It should also be noted that even while the various stakeholders are undertaking these improvements, there are persistent challenges that are inherent in the development of WRS that need to be considered and addressed.

Arising from the above review, the following policy options could be considered to address some of the performance issues that continue to constrain the development of warehouse receipt system and financing:

- (i) Delinking the regulatory functions of the Uganda Warehouse Receipt Systems Authority from the Uganda Commodity Exchange (UCE) and establish separate governance and ownership structures for both. The WRS authority should enjoy a high level of autonomy from the Government and should have no budgetary dependency a line ministry.
- (ii) Reforming some of the regulations in the WRS Act of 2006 to allow private entities issue tradeable electronic warehouse. The regulations should be harmonised with those at the Capital Markets Authority to allow the establishment and operation of commodity exchanges and regulations relating thereto. These will attract agricultural finance to SMEs that seek to trade their commodities in these markets.
- (iii) Encouraging programmes that support scaling of tradeable volumes among the smaller scale producers and those that encourage trading of commodities in commercial quantities prioritising quality standards. The UCA, UFFE and other apex commodity associations working with the

respective government ministries can take a lead in this.

- (iv) Developing capacity building programmes in collaboration with donors to target interested financial institutions (formal and informal) that are looking to develop WRS finance products. These products should incorporate not only the financial structuring methodology but also understanding of the WRS concept, and identification and mitigation of WRS transactional risks.
- (v) Refining policy and regulation on warehouse produce quality standards to ensure conformity to testing procedures and standards of regional market. There should be an appropriate legal enforcement system to regulate the quality of warehoused commodities.

In its efforts to tap its huge agricultural potential, and to commercialise and modernise agriculture warehousing is an end game in the agricultural production chain. While the above recommendations will strengthen produce warehousing, Government's intervention for the agriculture sector must be holistic and fully integrated. Only then will the various value chain activities truly impact the farmer and the country and transform Uganda's agriculture sector.

References

- Akiyama, T., Baffes, J. and Varangis, P. (2001). Market Reforms: Lessons from Country and Commodity Experiences. In Takamasa Akiyama, John Baffes, Donald Larson, and P. Varangis, (eds.), *Commodity Market Reforms: Lessons of Two Decades*. Washington, DC: World Bank.
- Baine, C. (2019). Recent Developments in Collateral Financing through the Warehouse Receipt System. Agricultural Finance Yearbook 2019 EPRC, Kampala.
- Coulter, J. (2009). Review of Warehouse Receipt System and Inventory Credit Initiatives in Eastern & Southern Africa.
- HTSPE, (2011). Final Evaluation of EU Support to the Uganda Commodities Exchange and Warehouse Receipt System (UCE/WRS).
- Katunze, M., Kutesa A., Mijubi, T. and Mahebe, D. (2017). Uganda Warehouse Receipt System: Improving Market Competitiveness and Service Delivery EPRC.
- Onumah, G. (2009). Improving The Efficiency of African Agricultural Marketing Systems Through Promoting Formalized Exchange Infrastructure: Potential Benefits, Challenges and Prospects.
- Rashid S., Winter-Nelson A and Garcia P. (2008). Purpose and potential of commodity exchanges in African economies, IFPRI, Washington DC.
- UNCTAD, (2007). Overview of the world's commodity exchanges 2006, Prepared by the UNCTAD Secretariat.
- USAID, (2017). Feed the Future Enabling Environment for Food Security: Assessing the Preconditions for Commodity Exchange Success: A Guidance Document. November 2017.
- WFP, (2014). Final Report: Study Of The Efficacy Of The Warehouse Receipt System In Uganda; Undertaken on behalf of the World Food Program and Uganda Commodity Exchange by the Natural Resources Institute, University of Greenwich. January 2014.
- World Bank, (2022). Country Private Sector Diagnostic Creating Markets In Uganda Growth through the Private Sector and Trade: World Bank. February 2022.
- World Bank, (2016). A Guide to Warehouse Receipt Financing Reform. World Bank Group, 2016.

Endnotes

- 2 Transforming Regional Commodity Markets Program Final Performance Report Submitted June 2022.
- 3 Final Report: Study of the Efficacy of the Warehouse Receipt System in Uganda. Undertaken on behalf of the World Food Program and Uganda Commodity Exchange by the Natural Resources Institute, University of Greenwich. January 2014
- 4 Focused on the benefits of WRS, and the quality, warehouse and personnel standards required to participate in a WRS
- 5 Uganda National Bureau of Standards (UNBS) is the statutory agency responsible for formulating, promoting and enforcing quality standards in Uganda
- 6 A risk-adjusted return measures an investment's return after taking into account the degree of risk that was taken to achieve it.
- 7 AUDA-NEPAD



CHAPTER GREEN FINANCING AND OTHER CROSSCUTTING ISSUES

4.1 FAST TRACKING INTEGRATION OF CLIMATE RISK MITIGATION POLICIES IN UGANDA'S AGRIBUSINESSES

Emmanuel Ikara¹ and Gaston Atusimiire²



4.1.1: Background

The world-wide effects of Climate Change are negatively impacting attainment of long-term sustainable economic growth in Uganda. The increasing climate vulnerability is due to its substantial reliance on climate-sensitive natural resources, and to low levels of economic development, population pressures and environmental degradation. About 40 percent of the country's population rely for their livelihood provisions on natural resources that include land, forests, wetlands, water resources, wildlife and biodiversity. With the country's population expected to increase from 48.6 million in 2023 to 70 million by 2040, therefore, pressure on its natural resources will escalate drastically unless urgent measures are taken to deal with the challenges.

Presently, agriculture is critical to Uganda's efforts to attain poverty reduction and overall economic growth;

with over 80 percent of the rural population employed in the sector and contributing about 75 percent of agricultural production. In 2019, agriculture contributed around 21.9 percent of Uganda's Gross Domestic Product (GDP); 46 percent of export earnings; 68 percent of total employment; and all its food requirements. Yet, extreme weather conditions are more frequent and more severe; with increased occurrence of drought, flooding and landslides over the last decade.

Despite various Government interventions, without urgent action, Climate Change-triggered damage to the agriculture, water, infrastructure and energy sectors is projected to reduce annual GDP growth by 2-4 percent between 2010 and 2050; with annual cost to the country of between USD 3.2 to 5.9 billion. It is also projected that the cost of inaction will reach more than USD 3.1-5.9 billion annually by 2025.

As of now, the agricultural sector in Uganda is characterised

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by low production and productivity, driven largely by poor agronomic practices and erratic weather caused by Climate Change. Given the sheer scale of climate impact on the country's economy, agriculture and food security, there is increased impetus to institute adaptive measures to mitigate climate impacts. In this regard, the country is working to ensure that agricultural transformation initiatives embrace green growth tenets stipulated by the Sustainable Development Goals (SDGs); the 2015 Paris Agreement on Climate Change; and the 2063 African Union Agenda for the continent's development.

Through its governance and collaborative frameworks, Uganda is already registering significant shifts at the policy, institutional and Development Partner levels towards the integration of Environmental, Social and Governance (ESG) framework in its climate strategy for agricultural and overall economic development, with specific inclusion of the 'do no harm' principle on social equity. Some of the initiatives are reviewed in this article.

4.1.2: Policy, Legal and Regulatory Frameworks for Climate Change Mitigation

Uganda recognises climate change as a significant barrier to the achievement of its sustainable development goals as highlighted in Government policies and strategies, such as the Uganda Vision 2040; National Development Plan III (NDPIII); National Climate Change Policy (NCCP); the National Green Growth Strategy; and Nationally Determined Contributions (NDCs). Uganda's Climate Change policy focuses on adaptation and mitigation efforts as critical priorities, with the goal of ensuring a harmonized and coordinated national transition to a climate-resilient and low-carbon development path.

In 2021, the country enacted its climate change law to govern national responses to the effects of climate variability. The law was enacted to operationalise the Uganda National Climate Change Policy that was adopted in 2015. The other key purpose of the Act was

to domesticate the UN Framework Convention on Climate Change, and the Kyoto Protocol and Paris Agreement on Climate Change; with Section 4 of the Act granting these international instruments force of law in Uganda. The law further provides national mechanisms, and institutional and regulatory frameworks for coordination and implementation of Climate Change response measures and financing.

With the 2021 Act in place, a National Climate Change Task Force was formed to effect policy and regulatory considerations. The Bank of Uganda (BoU), as a member of this Task Force and regulator of the country's monetary policy and financial institutions, is engaging the supervised financial institutions on initiatives to address Environmental, Social and Governance (ESG) issues and standards in the financial sector. As part of its strategic plan for 2022-2027, BoU will work with financial institutions to issue climate change risk management guidelines for the agricultural sector.

The BoU strategy commits financial institutions that support the agricultural sector, such as banks and credit institutions, to acquisition of requisite knowledge and resources to bolster or trigger their ESG efforts. Once these institutions imbue the ESG principles among their clients in the agricultural sector, their activities and application of the ESG will truly advance Uganda's efforts to address the challenges of Climate Change resilience, agricultural productivity and economic transformation.

4.1.3: Financial Sector Efforts Towards Climate Risk Mitigation in Uganda

Through internal and external corporate social responsibility and Customer Relationship Management (CRM) initiatives, the paradigm shift towards ESG among Uganda's financial institutions is gathering steam. As part of its green industrialisation plan, in 2021 Stanbic Bank Ltd., Uganda's largest bank, introduced an ESG-based lending and advisory service that covers project finance, export credit and corporate clients. As an immediate

outcome, the bank's internal carbon footprint decreased by 6 percent in 2021, driven by reduced reliance on diesel power generation and by equipment rationalisation. In addition, Stanbic partnered with private sector players in the '*Taasa Obutonde*' (Save the Environment) campaign to support good health, well-being and climate action, while encouraging environmental conservation and recycling plastic waste.

On the other hand, Centenary Bank Ltd., the largest rural development bank in Uganda, is also supporting and promoting activities to enhance environmental sustainability. As part of its CRM strategy, the Bank partnered with Uganda Energy Credit Capitalisation Company, USAID, Village Power, Power Trust and Solar to execute a solar loan package that has grown to cover 104 cases worth UGX 996 million. Through its power connection loan initiative, it also funded 82 new connections to the national grid amounting to UGX 300 million, and supported use of energy-saving stoves.

Internally, Centenary Bank also reduced its diesel generator derived carbon emissions for their branches by increasing the number of reducing use of higher capacity (15-150kva) generators by 30 percent, and increasing use of low capacity (15 – 60kva) lower-C emitting generators from 20 to 26 percent. In addition, the Bank promoted use of IT for information dissemination among Staff instead of printed documents, which reduced paper usage in 2018 by 34.6 percent. It is also introducing print management software to reduce printing and improve paper management.

In 2022, Equity Bank Uganda Limited. also launched the Equi-green loan financing for clean, renewable technologies to promote clean energy generation and the adoption and purchase of innovative clean energy technologies that directly impact people's health, incomes and the environment. The Bank also unveiled a USD six million plan for Small and Medium enterprises (SMEs) dubbed the '*Africa Recovery and Resilience Plan*' for Uganda. This initiative focuses on food and agricultural

production; trade, technology, manufacturing and logistics; and social and environmental transformation.

In Uganda's efforts to address ESG challenges, the microfinance institutions have not been left behind. In 2022, Pride Microfinance introduced a clean energy loan to enable communities access affordable cost-saving and environmentally friendly solar systems, briquette stoves, water purifiers and biogas plants. The same initiative is also being supported by the Microfinance Support Centre (MSC) through its environmental loans. The above initiatives by financial institutions provide opportunity for partnerships with Government and Development Partners for scaling up or replication to broaden reach, adoption and impacts.

4.1.4: Agribusiness and Development Partner Efforts Toward Climate Responsive Financing

With increasing efforts towards climate financing in Uganda, local and international development actors are moving to integrate Customer Relationship Management (CRM) approaches as part of their policies and operations. Recently, for example, USAID launched its Climate Strategy 2022-2030, focused on advancing strong standards of disaster risk insurance, including support for citizen oversight of climate financing and, in part, on combating corruption. The strategy also targets support for the most climate-vulnerable and marginalised groups, including young children and their families, by including incentives, capacity development, comprehensive environmental and social safeguards, and accessible grievance mechanisms into their activities.

Meanwhile for its economic growth contracts, especially in agriculture, USAID already has an environmental compliance reporting and contractual requirement with CRM clauses. This requirement extends to sub-contracts for local SMEs. The UK Foreign, Commonwealth and Development Office (FCDO) has also incorporated CRM as an integral component of its programme operating

framework to advance safeguards and considerations for the environmental impact of its development efforts. This is a reaffirmation of the principle that assistance should ‘do no harm’, and must not predispose communities to risk of ecological damage.

In 2020, the Agriculture Business Initiative (aBi), an impact investor supporting Ugandan agribusinesses to increase agricultural production and value addition, launched its Green Growth Strategy 2020–25. The strategy was designed to improve resilience of agriculture and agribusinesses to environmental and Climate Change shocks; enhance green technology financing through increased availability of long-term finance; and to support green growth with less carbon footprint and waste by promoting efficient and sustainable utilization of natural resources and effective waste management.

Critical to their strategy is the pivot to “green investments”, that “do no harm” to the environment and that focus on climate change adaptation, mitigation and bio-diversity conservation. The aBi ESG approach also extends to internal actions, including training to enhance staff and management knowledge, awareness and competence in green programming; and will be expanded under the strategy to cover additional CRM actions to limit the organization’s carbon footprint. Compliance to ESG assessments shall remain pivotal to project assessments.

The national, agribusiness and development partner initiatives now being promoted in Uganda are in conformity with and aligned to global shifts towards sustainable development. The European Union (EU), for example, is operationalising strategies to fulfil its commitment for a 55 percent reduction in greenhouse gas emissions by 2030 compared to 1990 levels. This is being executed through new policies, including recent ban on importation of commodities and products associated with deforestation and forest degradation. For Uganda, therefore, implementation of robust ESG, including strong environmental ‘do no harm’ mechanisms, will strengthen the country’s agribusiness products position in the global

market.

4.1.5: Ways Forward

Whereas in Uganda significant progress has been made by financial institutions and development bodies towards ensuring better financing of investments in agriculture, agribusiness and climate smart initiatives, the volume and range of activities being undertaken and available finances are still relatively low and more needs to be done. Of particular, progressive policies and operational actions by stakeholders at the CRM front need more linkages as they are being scaled up. Increased collaboration between and among financial institutions, Government, development actors and SMEs will promote and support resilient agricultural growth and increase investments that directly benefit the Ugandan farmer, the rural poor and the country’s development and environmental wellbeing generally.

Furthermore, the ESG policies that is hinged on the ‘do no harm’ principles and is already being implemented at the financial institution levels needs to be cascaded down to the enterprise and community levels. This cascading could include integration of ‘green’ contractual clauses by financial institutions, and development actors extending support only to compliant entities. In addition, the ESG policies need to be underpinned by strong operational, monitoring and evaluation frameworks that align with the existing and upcoming national and international regulatory standards. These are worthy aspirations and goals.

Bibliography

- Bakiika, R., Mbatuusa, C., Mugeere, A., Amumpiire, A., (2020). Climate Finance Mobilisation in Uganda: The most viable financing option. Kampala: ACODE. Policy Research Paper Series No. 102
- Constance, (2021). Legislating the Paris Agreement in Africa: Approaches to Climate Legislation in Eswatini, Kenya, Nigeria, and Uganda. <https://ecbi.org/sites/default/files/National%20Climate%20>

Legislation_0.pdf

odt

MoWE, (2022). Uganda's Third National Communication to the United Nations Framework Convention on Climate Change. <https://unfccc.int/sites/default/files/resource/Final%20TNC%20Uganda.pdf>

Amendments adopted by the European Parliament on 13 September 2022. https://www.europarl.europa.eu/doceo/document/TA-9-2022-0311_EN.html

Markandya, (2015). Economic Assessment of the Impacts of Climate Change in Uganda. <https://www.africaportal.org/publications/economic-assessment-of-the-impacts-of-climate-change-in-uganda/>

The Uganda Green Growth Development Strategy, 2017/18 – 2030/31. <https://gggi.org/wp-content/uploads/2019/03/Uganda-Green-Growth-Development-Strategy-20171204.pdf>.

Climate Change Laws of the World <https://climate-laws.org/geographies/uganda/laws/national-climate-change-act-2021>

United Nations Climate Change: <https://unfccc.int>

MWE., (2015). Uganda National Climate Change Policy Session of Pride Microfinance Ltd. into the Sustainability Standards and Certification Initiative. 2022. <https://www.bou.or.ug/bouwebsite/bouwebsitecontent/MediaCenter/DeputyGovernorSection/speeches/DeputyGovernorsSpeeches/2022/Sep/DGs-Closing-Remarks-at-Welcoming-Ceremony-for-Pride-Microfinance-into-SSCI.pdf>

Equity Bank Uganda, (2022). <https://equitygroup Holdings.com>

Pride Micro Finance Limited, (2021). <https://www.pridemicrofinance.co.ug/clean-energy-loan/>

Sinead, (2020). Financing for the future: Climate finance and the role of ODA. <https://donortracker.org/insights/financing-future-climate-finance-and-role-oda>

USAID Climate Strategy, 2022-2030. <https://www.usaid.gov/sites/default/files/documents/USAID-Climate-Strategy-2022-2030.pdf>

FCD0 Programme Operating Framework. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1084157/Programme-Operating-Framework-14-06-2022.

4.2 ATTRACTING GLOBAL CLIMATE FINANCING FOR ACHIEVING UGANDA'S GREEN GROWTH ASPIRATIONS

Tom Sengalama¹



4.2.1: Background

The Sustainable Development Goals (SDGs), agreed upon in 2015 by world leaders, aim to create a better, fairer, world by 2030, through focus on ending poverty and inequality and urgently addressing the emerging challenges of Climate Change. Specifically, developing countries face a high risk of the impacts of Climate Change on the weather, environment, agricultural production, pestilence and health; and it is estimated that, unchecked, Climate Change will drive 68 million to 135 million people into poverty by 2030 (World Bank, 2020).

According to the World Bank Report of 2020, developing countries, particularly in Africa and Asia, are expected to suffer the highest losses from climate change. For example, crop failures due to drought in Uganda and other East African countries are pushing up food prices and inflation. Yet, the cost of adaptation to climate change

is not necessarily low. The United Nations Environmental Programme (UNEP) estimates that adaptation costs in developing countries could range from USD 140 to 300 billion per year by 2030, and USD 280 to 500 billion by 2050 (UNEP, 2022).

In Uganda, an economic assessment of the possible impacts of Climate Change on the country by the Ministry of Water and Environment (MoWE) revealed that, with no adaptive actions taken, annual climate-induced losses to the country could be reach USD 3.2 - 5.9 billion within a decade (GoU, 2015). The biggest impact areas would be on water, energy, agriculture, health and infrastructure. Costs are also projected to rise under a business-as-usual approach, and over the 40 years from 2010-2050, the cost of inaction is estimated at between USD 273 - 437 billion.

Against the above, there is already compelling evidence and justification for investing in interventions for

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climate change adaptation and resilience. The 2019 Global Commission on Adaptation Report indicates that the overall rate of return on investments in improved resilience is very high, with benefit-cost ratios ranging from 2:1 to 10:1, and in some cases even higher (WRI, 2019). The World Bank also estimates that, on average, the net benefit of investing in more resilient infrastructure in low and middle income countries such as Uganda would be USD 4.2 trillion, with USD 4 of benefit arising for each dollar invested. In addition, an investment of USD 1.8 trillion in the areas of early warning systems, climate resilient infrastructure, improved agriculture and resilient water resources, among others, could generate almost USD 4 worth of avoided costs and non-monetary social and environmental benefits for every USD 1 spent. This would result in USD 7.1 trillion worth of avoided costs, and huge non-monetary social and environmental benefits.

The above examples clearly demonstrate a strong case for investment in Climate Change adaptation and resilience. However, access to and mobilising climate finance remains a central challenge to achieving low carbon, climate resilient growth and sustainable development pathways for developing countries, especially in Africa. Based on the costed Nationally Determined Contributions (NDC), for instance, Africa needs USD 2.8 trillion between 2020 and 2030 to implement its NDCs under the Paris Agreement (CPI, 2022). This is considered as the cost of continental African's contribution to limiting global temperature increase to 1.5°C by 2030, and to addressing the biggest impacts of Climate Change. To meet these 2030 targets, the Continent needs to annually invest USD 277 billion on implementing NDCs to meet the global goals. Unfortunately, this is not happening as the continent currently gets annually only about 10 percent (USD 29.5 billion) of the required budget.

The observed asymmetry in the distribution of climate finance is particularly worse for sub-Saharan Africa which receives the lowest share of climate finance. Within sub-Saharan Africa, the Central and East African countries experience the largest climate finance gap as a percentage

of GDP, 26 and 23 percent on average respectively, while North Africa faces the lowest climate investment gaps (3% of GDP) (*ibid*). The complex and fast-evolving climate finance architecture calls for building of national capacities to better understand and implement policy options to attract and effectively utilise climate finance.

4.2.2: Climate Financing in Uganda

According to the 2022 update of its Nationally Determined Contributions (NDC), Uganda requires an estimated USD 28.1 billion for the implementation of the adaptation and mitigation actions over ten years up to 2030. Against so many other development needs, this is a huge climate financing need for the country.

The Uganda NDC implementation plan indicates an estimated total cost of USD 17.7 billion for adaptation, of which USD 2.5 billion (approx. 14%), is considered unconditional cost of implementation to be made available through the National Budget. The rest, USD 15 billion (approx. 86%), remains a conditional means of implementation that will depend on international financing and bilateral support (GoU, 2022). For implementation of mitigation policies and measures, estimated cost up to 2030 across all sectors is USD 10.3 billion. Of this USD 1.6 billion (approx. 15%) is to be supported through locally generated Budget funds, while the much larger chunk of required funds of USD 8.7 billion (approx. 85%) will depend on external or international financing.

The above means that, as of now, funding of the Climate Change priorities of Uganda cannot be met without strong private sector investments and financial support from domestic and international sources. With its level of vulnerability to climate risks², the country has no choice but to develop and implement innovative mechanisms and policy options to effectively attract and use climate finance to meet its climate needs.

One of the reasons for the high vulnerability of the country to Climate Change risks is her reliance on rain-fed

agriculture. For example, Uganda is Africa's second largest and the world's 10th largest coffee producing country. Yet, climate variability continues to hamper coffee productivity, profitability and sustainability (ibid). Studies also predict that Climate Change will cause about 25 percent reduction in land currently suitable for Arabica coffee cropping and will result in huge net-losses; with production expected to reduce by 50 -75 percent due to loss of suitable land and decreased yields by 2050 (ibid). The climate impacts for coffee production alone will be huge, especially for the large numbers of relatively poor smallholder farmers who depend on coffee for their livelihoods.

As such, climate finance is urgently needed to help mitigate and adapt to risks and improve resilience in the country. Where finance is secured, inefficiencies in mechanisms for delivery of funds and the resulting failure to leverage broader finance from the private sector can mean that impact on the most vulnerable will be far more limited. This would hinder Uganda's ability to attract more climate financing for climate; hence, building finance delivery mechanisms that are efficient and inclusive is critical to ensuring that Uganda attracts higher climate finance for the country and the people.

4.2.3: Options for Accessing Global Climate Finance

The published Nationally Determined Contributions (NDC) for Uganda, with its clear climate mitigation and adaptation targets, is a very good first step to positioning the country to attract global climate financing. The NDC has been complemented with a clear NDC implementation plan that defines priorities and means of implementation, and the country has also developed a monitoring and verification tool and established a Climate Finance Unit within the MoFPED. As such, Uganda has a solid framework for implementation of requisite Climate Change programmes and activities.

To attract global climate finance, however, Uganda will require innovative approaches to tap into both private

and public finances. The global public financing source that the country can tap is largely through multilateral vertical funds, such as the Green Climate Fund (GCF) and Global Environment Facility (GEF). However, the biggest sources of global climate finance are multilateral financial institutions, including the World Bank and African Development Bank (AfDB), and the private sector. Uganda has also embarked on the development of a framework and guidelines for implementation of carbon markets. Given its low carbon dioxide (CO₂) emissions, of just 0.02% of global emissions, the country also has a huge potential of attracting climate financing through carbon markets.

4.2.4: Optimising Climate Financing through Carbon Markets and other Financing Instruments

As Uganda looks to international support to implement its Climate Change initiatives, and despite significant progress already made, the country must continue to innovate and devise ways of adhering to its climate agenda and effectively implementing its planned programmes and activities; attracting technical and financial support; and ensuring effective and accountable use of funds. Some of the key areas to consider are outlined below.

Promoting investments in Renewable Energy. Clean, renewable and efficient energy generation and use systems are important in reducing harmful emissions, and protecting critical biodiversity and the health and wellbeing of citizens. Renewable energy systems derive from nature-based solutions approaches to build resilience and drive a sustainable green economy.

For Uganda, as per the 2018 assessment report of the United Nations High Commission for Refugees (UNHCR) on energy use within refugee-host districts, about 1.1 million tonnes of fuelwood is needed every year to meet the energy demand of 1.2 million refugees. Given that about 95 percent of households in Uganda rely on biomass energy for cooking and heating, continued

reliance on charcoal and fuelwood will drastically drive deforestation in the country (UBoS, 2020). Reliance on fuelwood also increases the risk of indoor air pollution, which is responsible for responsible for 3.7 million deaths globally.³ These clearly demonstrate the urgent need to shift to clean, renewable and green energy sources. To catalyse the country's financing, therefore, needs to recognise and address the linkages between energy, health, food systems and the environment.

By financing Uganda's transition to clean energy, the global community will benefit from deforestation and loss of diversity while at the same time contributing to better quality of life. And to attract financing for energy transition, the Government needs to put in place clear de-risking instruments and other incentives that attract private sector investments in clean and affordable energy.

Biodiversity and Nature-Based Solutions. Nature based solutions provide the opportunity to build climate resilience at local levels, while also contributing to improved livelihoods. In recognition of this, under its global commitments for the Bonn Challenge and Nature-Based Solutions Uganda has committed to restore 2.5 million hectares of its forests by 2030. This is a priority area of action in implementation of the country's Nationally Determined Contribution (NDC), in terms of both mitigation and adaptation. It will also contribute to the Africa vision of restoring and sustainably managing 100 million hectares of land and creating 10 million jobs by 2030. This will contribute to 15 of the 17 elements of the Sustainable Development Goals (SDGs), and to the Bonn Climate Change Challenge.

The environmental, social and economic dividends of well-designed nature-based climate solutions are enormous, with linkages between effective management and sustainable use of wildlife (fauna and flora) and improved livelihoods of local communities are well documented. Well managed landscapes strengthen community resilience to the adverse impacts of Climate Change as well as contributing to national economies. Also importantly, it

turns the wildlife into an asset rather than a liability to the rural communities that live with the wildlife. This has been demonstrated by Uganda's ecotourism sector, particularly Mountain Gorilla trekking, that has helped transform the livelihoods of forest-adjacent communities in the country, and has supported its foreign exchange earnings. Additionally, property values around key protected areas have gone up and tourism revenues have attracted more investments in conservation from Government and the private sector.

With progress made, the linkages between social and economic dividends and nature-based climate solutions need to be fully appreciated and integrated into the national financing frameworks and used to attract both local and foreign investments into areas that enhance Uganda's climate action. This is important because while nature-based solutions is benefiting the economy and ecosystems, Uganda's natural capital has continued to decline due to rapid landscape degradation driven by deforestation and soil erosion. Between 1990 and 2015, for example, forest cover loss in the country amounted to USD 1.2 billion worth of economic loss, while soil degradation is costing an estimated 17 percent of GDP. Therefore, given the fact that Uganda's prospects for economic growth and poverty reduction are closely hinged on sustainable management of its natural resource base, investments in nature-based adaptation will result in a climate resilient economic growth.

Benefiting from Uganda's natural capital requires a clear framework and guidelines for tapping into global carbon markets to finance conservation of natural assets. The Nationally Determined contribution, (2022) indicates that 59.5 percent of emissions come from deforestation, underscoring the need to finance Uganda's mitigation actions. Therefore, Uganda has embarked on developing carbon market instruments to optimise benefits from its natural capital. Once developed and with the operationalisation of the climate finance facility that was recently launched by Uganda Development Bank, the country will attract viable investments through different

voluntary carbon market mechanisms.

Climate Smart Agriculture. Being the traditional source of livelihoods and export earnings for the country, agriculture is a sector critical for the economic growth of Uganda, and its development of a low carbon and climate resilient economy. According to the World Bank (WB, 2021), economic growth in agriculture is two to three times more effective at reducing poverty and food insecurity than growth generated in other sectors. However, whereas agriculture contributes about 25 percent of Uganda's GDP and is the main source of livelihood for the bottom 40 percent of rural households (World Bank, 2021), the country's rate of land degradation (with 41% now degraded) alongside with Climate Change as a threat multiplier are likely to diminish benefits of any country investment in the agriculture sector.

The World Bank estimates that up to 27 percent of agricultural GDP can be lost from environmental degradation. This reality underscores the central role of climate finance for the country, and calls for need to develop a clear financing strategy for her green growth. Successful implementation would mean sustainable boost in agricultural productivity, rural livelihoods resilience, and health and nutrition outcomes. Realigning policies and financing, and support to incentivise investments and increase profitability of food system practices that deliver positively for climate, biodiversity, nutrition and poverty-reduction, will vastly improve the climate resilience of people and their environments.

Interventions to promote climate resilient, sustainable agriculture are particularly context-dependent, and have potential to deliver across multiple objectives. They, however, also have scopes for tensions across objectives. Effective gender-sensitive, youth informed, and climate-smart programmes require a deep understanding of cultural and resource contexts, including power dynamics and negative coping strategies. In this regard, land tenure and land use systems in Uganda are particularly challenging as there is no centralised approach to land

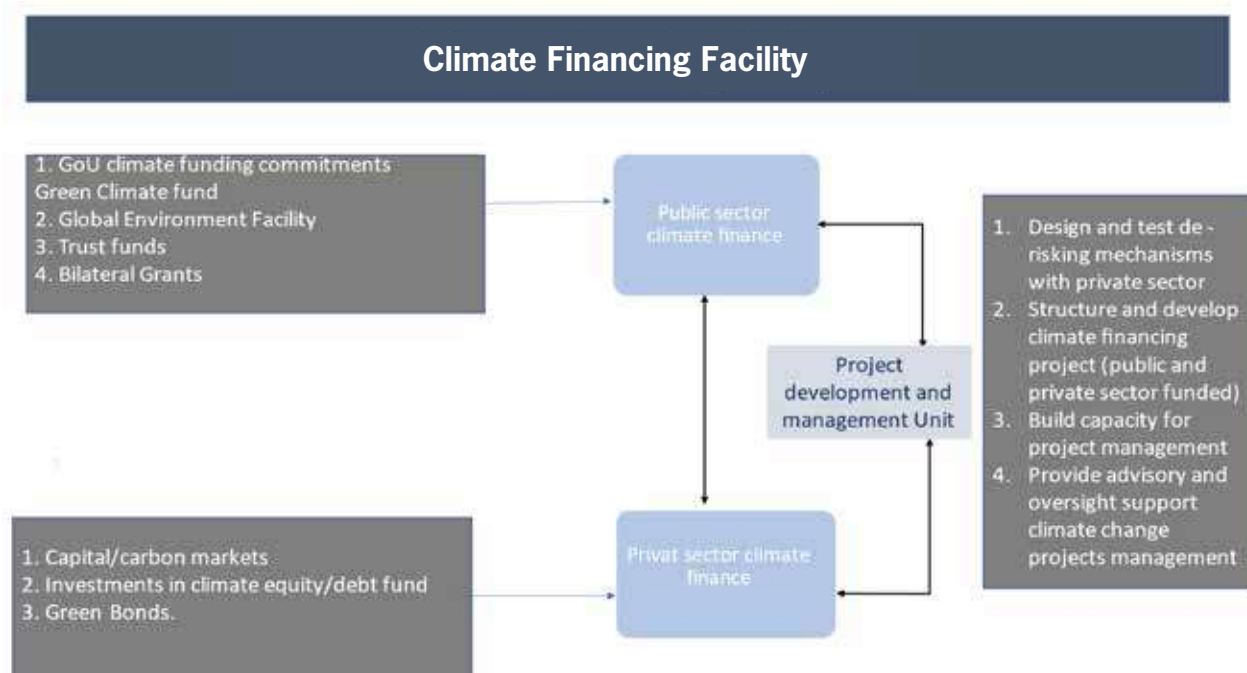
use practices. Interventions will need to focus on policy influence to transition to sustainable land use.

Given that agriculture contributes 26.9 percent of Uganda's total carbon emissions (GoU, 2022), yet is central to the economy and livelihoods, a clear pathway to low emission and sustainable agriculture is needed. It is therefore important that financing mechanisms to address emissions from agriculture are designed and integrated into the national climate financing framework.

Partnerships and Resource Mobilisation. Delivering on climate finance for NDC implementation will require alignment of national focus and regulatory frameworks with both global and national climate financing demands and priorities. Partnerships and coordination between public and private sectors will be important as private financing is increasingly becoming the dominant source of climate finance. This means that Uganda must have in place initiatives and regulatory frameworks that can help mobilise and attract climate finance from both private and public sectors.

Financial Inclusion for Women and the Youth. Equity in access to climate finance is also an important imperative in tackling a country's climate based challenges. In Uganda, most women own small informal enterprises that may not be targeted for financing, yet women are disproportionately affected by climate induced stresses and disasters. Channelling climate finance towards gender-smart investments at the local level would empower women and enable them to adapt and build resilience against climate shocks and increase ability to address climate emergencies. It will also be important to design and implement financing mechanisms that support access to climate finance by the youth, given that 70 percent of Uganda's population are youths below 25 years of age to whom the future of the country belong.

Structuring Climate Financing Framework for Uganda. Given the articulated challenges of climate financing for Uganda, there is urgent need to put in place climate

Figure 33: Structure of a climate finance framework

Source: Authors construct

financing mechanisms that will catalyse flow of funding from both private and public sector sources. Such frameworks also require dedicated building of knowledge, capacities and technical support infrastructure that will facilitate development of pipeline projects and oversee effective implementation as illustrated in Figure 33 below.

4.2.5: Recommendations and Ways Forward

In this review, the need for climate finance and for both strategic and management interventions for climate financing for Uganda have been examined, and proposals made of some of the pathways through which climate financing can be structured. At the heart of financing success is political commitment and having appropriate Government institutional and regulatory frameworks to drive implementation. In the regard, the MoFPED has established a Climate Finance Unit, while Uganda Development Bank has established a climate finance facility. These are likely to catalyse beneficial partnerships with the private sector and development partners in structuring and management of climate financing for Uganda.

Considering the above, building Uganda's financing mechanisms that will involve the Government, and private and public financing institutions, and assure success require further consideration of outstanding issues. Concluding, it is hereby proposed that the interventions outlined below be considered.

a) De-risking private sector investment in climate actions and smart technologies. This is an approach that uses, strategically, public capital to mitigate investment risks that are discouraging the flow of private capital. What this means is that funds from Government, bilateral and multilateral donors would be used to de-risk private investments in climate resilient technologies and production systems. This will then unlock private capital for investing broadly and at scale.

b) Establishment of a private sector led financing platform including carbon market mechanism. The National Climate Change Act 2021 has provided for the establishment of financing mechanism for climate change. Article 6 of the Paris Agreement provides for

cooperative and voluntary approaches for mobilising required financing to fund targets for carbon emissions reduction. The platform will develop and operationalise a private sector-led financing, and assess risks and guide the structuring of de-risking instruments.

c) Establishment of project development and management Unit. This Unit will largely be a capacity development vehicle for operationalising the climate financing structure and instrument, and to catalyse climate finance flows. The Unit when established will support development of pipeline projects, and constantly review de-risking instruments. In addition, it will work closely with the private sector to guide them in formulation of good green investments.

d) Tapping the climate finance facility. The establishment of the climate finance facility and a specific climate finance unit within the MoFPED provides a great opportunity for structuring climate financial flows, particularly catalysing private sector financing for green projects. One of the targeted sources of private sector financing is the design and issuance of green bonds. Uganda will need clear policy instruments and guidelines to benefit from such innovative financing. Every effort should be made to prepare Uganda to position itself for such new frontiers of financing.

The ability of a country to develop incentive mechanisms to attract private sector investment is critical, since over 60 percent of climate finance comes from the private sector. Multilateral development banks are also structuring incentive mechanisms to catalyse private financial flows into climate financing. It is therefore critical for Uganda to adaptively optimise private sector space through structuring incentives and de-risking instruments to catalyse private sector climate investments across the country.

References

- CPI, (2022). Landscape of Climate Finance in Africa. Accessed from <https://www.climatepolicyinitiative.org/wp-content/uploads/2022/09/Landscape-of-Climate-Finance-in-Africa.pdf>
- GoU, (2015). Economic Assessment of the Impacts of Climate Change in Uganda report 2015. Ministry of Water and Environment, Climate change department. Accessed from https://cdkn.org/sites/default/files/files/UGANDA_Economic-assessment-of-climate-change_WEB.pdf
- GoU, (2022). Updated Nationally Determined Contribution (NDC) 2022. Ministry of Water and Environment. Accessed from https://unfccc.int/sites/default/files/NDC/2022-09/Updated%20NDC%20_Uganda_2022%20Final.pdf
- GoU, (2022). Uganda's Updated Nationally Determined Contribution (NDC), 2022. Ministry of Water and Environment.
- UBoS, (2020). Uganda National Household Survey (UNHS) 2019/20. Uganda Bureau of Statistics. Accessed from https://www.ubos.org/wp-content/uploads/publications/09_2021Uganda-National-Survey-Report-2019-2020.pdf
- UNEP, (2022). Too little, Too slow. Climate adaptation failure, put the world at Risk, Adaptation Gap Report, 2022. Accessed from <https://www.unep.org/resources/adaptation-gap-report-2022>
- World Bank, (2020). Global action urgently needed to halt historic threats to poverty reduction. Accessed from <https://www.worldbank.org/en/news/feature/2020/10/07/global-action-urgently-needed-to-halt-historic-threats-to-poverty-reduction>
- World Bank, (2021). Uganda Economic Update. From Crisis to Green Resilient Growth. Investing in sustainable land management and climate smart agriculture. Accessed from <https://documents1.worldbank.org/curated/en/265371623083730798/pdf/Uganda-Economic-Update-17th-Edition-From-Crisis-to-Green-Resilient-Growth-Investing-in->

Sustainable-Land-Management-and-Climate-Smart-Agriculture.pdf

WRI, (2019). Adapt Now. A global Call for Leadership on Climate Resilience. The Global Commission on adaptation 2019 report. Accessed from https://gca.org/wp-content/uploads/2019/09/Global-Commission-ReportFINAL.pdf?_gl=1*11qnknk*_ga*MTg5NzYzOTY3NC4xNjg0ODI0MzEz*_up*MQ.

Endotes

- 2 According to the Notre Dame Global Adaptation Initiative index (2019), Uganda is 15th most vulnerable and 49th least prepared to adapt
- 3 WHO, <https://www.who.int/globalchange/publications/COP24-report-health-climate-change/en/>

4.3 UNLOCKING BARRIERS TO FINANCIAL SERVICES ACCESS FOR MARGINALISED RURAL SAVINGS GROUPS: FOCUS ON REFUGEE COMMUNITIES

Emmanuel Ikara, Noah Owomugisha, and Gaston Atusimiire¹



4.3.1: Background

Financial inclusion is critical to rural development and growth. However, penetration of formal financial institutions into rural areas where poverty is pronounced is always difficult and slow, due to high transaction costs, high risks and unfavourable contracting environments that make it unlikely for them to succeed and maintain sustainability. Most rural poor around the world remain excluded from the financial system, which limits their ability to access savings, credit and insurance services to invest in their productive activities or manage idiosyncratic risks and seasonality. In such circumstances, communities utilise social frameworks to create their own informal units to save and mobilise resources for sustenance and development.

Village Savings and Loan Associations (VSLAs), common throughout Uganda, are informal self-managed groups of 15-25 people that provide members with essential

and practical financial services and experience. They are critical in bringing financial services to rural areas to improve financial inclusion, household business outcomes and women's empowerment; and are perceived to be all-inclusive because they provide small loans with limited scrutiny and paperwork. The savings groups reach ultra-poor and vulnerable households who cannot readily access traditional banking or microfinance interventions, and are integral to large-scale anti-poverty programmes. Loans from them are considered friendlier, with fair interest rates compared to banks that offer higher rates, and beneficiaries only need to be members with savings or shares in the institutions.

Even where formal financial institutions are established in rural areas, their high screening, complex paper work and high fees make their products and services unsuited for the flexibility required by the rural poor whose seasonal demands for credit reflect their agricultural orientation. The rural poor, thus, often satisfy their needs for financial services by relying on informal mechanisms.

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Demand for informal financial services is not only driven by exclusion from financial markets but can also reflect preferences for some attribute, such as convenience, ease of use and trustworthiness (Lee *et al.*, 2012). Furthermore, although microfinance institutions have provided access to financial services to millions of people, the provision in rural areas remains a significant challenge. In this article, therefore, we review avenues of unlocking barriers that limit access to financial services for marginalised rural savings groups within refugee communities.

4.3.2: Financial Exclusion of Refugees

Currently, Uganda has an estimated refugee population of about 1.5 million people. While economically very fragile on average, refugees display widespread eagerness to establish and grow businesses with great potential for financial institutions, but are often constrained by financial exclusion. Many refugees save in VSLAs or Savings and Credit Cooperatives (SACCOs), and their demand for financial services is like that of Ugandans.

In 2017/18, the United Nations High Commission for Refugees (UNCHR) captured some 29,000 VSLAs and SACCOs savings groups across 13 refugee settlements in Uganda. Saving groups serve social and financial purposes and are well appreciated by refugees. Most refugees save to start businesses or comply with the minimum “compulsory savings amounts” required for borrowing from VSLAs or SACCOs. Still, the average VSLA loan sizes are less than UGX 300,000, insufficient to start a small business. However, many savings groups struggle to access finance because of legal barriers, lack of identity documentation, lack of credit history in their new locations, or lack collateral as security. These barriers limit access to financial services for refugee communities which need to be reviewed in light of the social, economic and environmental impacts refugees have in their host districts.

Legal hurdles. Many refugees have no access to banks and other mainstream financial services. This barrier

creates enormous hurdles to self-reliance and economic independence. In addition, creditworthiness requirements (proof of income or credit history for transactional bank accounts) impede chances of refugees gaining access to financial services.

The financial services industry has long accepted that proof of citizenship, identity, and residency reduces risks. As a result, many institutions have included requirements for a national Identification (ID) in their eligibility criteria without adding the flexibility of substitute documentation. In countries where refugees have the right to open bank accounts, lack of suitable documentation is usually the main obstacle. Further, strict anti-money laundering and counter-terrorism financing rules also make international banks reluctant to open accounts for customers who lack passports, even when host government directives provide that biometric cards or other government-issued identity documentation are sufficient.

In addition, in Uganda, foreign-born residents cannot legally own land. So even if refugees have purchased land privately, they are unlikely to have formal land titles in their names. In place of land titles, refugees can offer savings deposits, chattel and vehicle logbooks as collateral, and livestock or stored produce are commonly pledged as security when sourcing loans. Further, refugee flight risk is a common concern among financial institutions. While most refugees are more geographically stable than is typically assumed, they still frequently shift residency due to high cost of living, safety concerns, deportation, return, resettlement or some other factors. In the circumstance, the challenge of easing access to finance for refugees remain.

Information gaps. Lack of information, contact, attention, and misinformation about refugees fuel the perception of refugees as “high-risk” clients. Many financial institutions are unfamiliar with their country’s refugee populations, particularly those living outside camps. In addition, financial institutions often also lack data on refugees’ livelihoods, skill sets, and financial needs. Similarly,

refugee populations are typically not well-informed about the financial institutions in their host country, and some may have a low level of financial education. The lack of contact, information, and familiarity with refugees has left most financial institutions to make decisions based on minimal information and common myths. Notably, refugees are a “very high risk” market segment, either because they are in the country temporarily or supported by humanitarian agencies. In addition, these refugees do not have access to markets, have no access to financial institutions and, in most cases, are too poor or too aid-dependent to repay loans.

Negative perception. Societal fears and prejudices are reflected in public policy and media, which cause concern to financial institutions about their reputation. The public discourse on refugees, as reflected in the media, is often highly politicised, and concerns about their adverse economic and social impacts abound, especially where the host population is already under political, economic and social stress. As a result, refugee populations are often portrayed as “aid beneficiaries” or as a burden to their host countries. This portrayal reduces the opportunities for refugees to find livelihoods and integrate into host communities.

Moreover, if these attitudes are reflected among clients and staff of existing financial institutions, refugees may have little chance of gaining access to financial services. Further, refugees may be concerned with keeping their information safe from authorities, as some expect discrimination from host-country institutions. Others assume that they will not be eligible customers, or simply assume that they will not be served because they do not speak the local language of host communities confidently and believe that financial institutes do not have interpreters.

Demand and capacity. Financial institutions are usually unable to handle the demand among refugee VSLAs for business loans, mainly because the loan amounts are too small and the product range is inappropriate. Most

informal financial service providers do not offer asset financing, e.g. for solar panels or motorcycles, and many SACCOs do not provide loans for agriculture. Yet, some refugee-led SACCO members in settlements demand specialised products. Urban refugees in the fast-turnover trade sectors seek loans in the UGX 3-5 million range but prefer shorter repayment periods (three months) to align better with their cashflow cycles. Conversely, start-up entrepreneurs in refugee settlements complain that VSLA loans often have repayment terms that are too short for the cashflow cycles of small businesses in the settlements, such as honey production that takes two years from setting up to harvest and sale. All these challenges adversely affect inclusion of refugees in formal financial services.

4.3.3: Strategies to Bridge Refugee Access to Financial Services

Against the challenges of poor accessibility of refugee settlements, distance from financial institutions, legal barriers and hence poor refugee access to financial services, being part of society that need to also engage in gainful economic activities, financial service delivery for refugees need to be explored and established, particularly in light of current progress in digital banking.

Unlocking legal bottlenecks. Overall 22 percent of adult Ugandans, some 4.2 million people, remain financially excluded, of whom 85 percent are rural residents and 56 percent are women. Recognizing this gap, in 2017 the Bank of Uganda launched its 2017- 2022 Financial Inclusion Strategy to rapidly increase nationwide digital financial services acceptance and usage, particularly in remote and marginalised areas of the country. The essence of financial inclusion lies in its non-discriminatory principle that “everyone, everywhere” should have access to essential financial services that are affordable and meet their needs.

Earlier regulatory and advocacy efforts have helped to lower legal barriers; including in 2013 when the Financial

Action Task Force (FATF) recognised financial exclusion as a money-laundering risk. New guidelines were issued to enable countries reduce stringent Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) requirements, and this allowed financial institutions to simplify their documentation for the customer segments assessed to have lower risks. Presently in Uganda, Tanzania and Kenya, financial service provider accept letters from the local authorities from villages (“peasant passports”) as an alternative to National Identity Cards for clients who do not have the cards. The few financial service providers serving refugees have also overcome legal challenges, typically by seeking prior approval and support from national authorities, Local Governments and Urban Authorities.

Digitisation. The use of technology in digital financial inclusion is providing innovative tools, including new identification and verification measures (e.g. biometrics, smart cards), to create user profiles that support more effective identity verification, fraud prevention and risk-based monitoring of transactions. Whereas these technologies open new risk areas related to the need for third parties to verify account holders and remote account opening, they also offer opportunities for data gathering and analytics, which help assess the credit risk of users with no formal credit records.

The UNHCR is currently trialing the linking of digital identification cards used to register refugees in some countries to remittance payment products. This may provide entry point for financial institutions to serve refugees. Financial institutions should also consider deploying more agents on the ground, especially in the different refugee settlement villages. This would reduce both the time and cost incurred by refugees to access financial services. Agents should also be able to speak the local language and be knowledgeable enough to respond to questions posed by refugees.

As further facilitation, financial institutions should also prioritise communicating loans and savings product

details, including fees, interest rates, prerequisites and, importantly, the terms and conditions of products offered. Such information could be transmitted through flyers and handouts in the local languages to make it easy for refugees to understand what they are signing up for. However, sharing information through agents would be ideal as customers would have someone to ask questions.

Maintaining accounts in formal financial institution could further secure members’ savings as theft is reportedly common among the refugee VSLAs surveyed. This will reduce the likelihood of individuals forgoing or quitting membership due to security concerns, and also promote linkages between VSLAs and formal financial institutions. Financial training is also necessary so that all members can review their deposit history and financial standing individually and with their organisations, thereby improving members’ sense of financial security and willingness to participate in the organisation.

Exploring mobile banking. Studies have shown substantial increase in mobile money transactions among refugees, indicating their desire and potential readiness to explore digital financial solutions. Mobile money is the preferred mechanism for both humanitarian aid receipt and commercial use amongst refugees and refugee- hosting communities. However, internet-enabled phones are rare, more so among women. Opportunity should be explored to reduce transaction fees for mobile money and mobile banking to encourage more transactions. As refugees continue to expand use of digital financial services, this would help support digital ecosystem, including paying for goods using mobile money or bank cards.

References

- USAID, (2019). Village Saving and Loan Association Assessment: Graduating to Resilience. https://pdf.usaid.gov/pdf_docs/PA00TRWH.pdf
- Burlando, A and Canidio, A, (2017). “Does group inclusion hurt financial inclusion? Evidence from ultra- poor members of Ugandan savings groups.” *Journal of*

- Development Economics*. Volume 128
- Lopez, T and Adalbert, W, (2017). The challenge of rural financial inclusion – evidence from microfinance. Pages 1555-1577
- aBi Finance Limited, (2022). Baseline estimation of select indicators. *Unpublished*
- Frisancho, V. and Valdivia, M, (2020). Savings groups reduce vulnerability but have mixed effects on financial inclusion. CAF - Working Paper/12
- Frisancho, V. and Valdivia, M, (2021). Savings groups, risk coping, and financial inclusion in rural areas. <https://www.aeaweb.org/conference/2022/preliminary/paper/9EZ3zrdd>
- Karlan, D; Beniamino, S; Thurybaert, B and Udry, C, (2017). Impact of savings groups on the lives of the poor. Accessed from <https://www.pnas.org/doi/10.1073/pnas.1611520114>
- Reliefweb, (2022). Uganda: UNHCR Operational Update. Retrieved 2022-08-26. <https://reliefweb.int/report/uganda/uganda-unhcr-operational-update-february-2022>
- Reliefweb, (2016). (Loan) cycles of innovation: researching refugee-run micro-finance. Source: ODI - HPN. <https://reliefweb.int/report/uganda/loan-cycles-innovation-researching-refugee-run-micro-finance>
- Gachoka, A and Merab, M, (2021). Linking refugees to formal financial services. <https://bflaglobal.com/insights/linking-refugees-to-formal-financial-services/>
- UNHCR, (2017). SERVING REFUGEE POPULATIONS: The Next Financial Inclusion Frontier Guidelines for Financial Service Providers. <https://sptf.info/images/Guidelines-for-FSPs-on-serving-refugee-populations-March2017.pdf>
- Information Centre about Asylum and Refugees, (2009). Financial Inclusion amongst New Migrants in Northern Ireland: A Literature Review.
- Micol, P, (2017). Removing Barriers to Expand Access to Finance for Refugees: How UNHCR is working to encourage lasting connections between refugees and the financial sector. <https://www.findevgateway.org/blog/2017/03/removing-barriers-expand-access-finance-refugees>
- Lene, M.P. Hansen, and Zikusooka, F, (2018). Expanding financial inclusion of refugees in Uganda diagnostic study. https://www.inclusivefinanceplatform.nl/wp-content/uploads/2019/04/Inpm-diagnostic-study-uganda-final_0.pdf
- UNHCR, (2016). Serving Refugee Populations: The Next Financial Inclusion Frontier Guidelines for Financial Service Providers. <https://sptf.info/images/RefugeeWG-Serving-Refugee-Populations-Guidelines-FSPs-Lene-Hansen.pdf>
- AFI Member Series, (2019). Uganda's journey to inclusive finance through digital financial services. https://www.afi-global.org/sites/default/files/publications/2019-07/AFIMSUgandaAW_digital.pdf
- Maikem, E, (2022). Digital IDs Are Life-changing For Refugees in Cameroon. Thomson Reuters Foundation. <https://www.goodgoodgood.co/articles/cameroon-refugees-digital-id>
- Michelle, H, (2022). Exploring refugees' usage of financial services in Uganda. <https://bflaglobal.com/insights/exploring-refugees-usage-of-financial-services-in-uganda/>
- Reliefweb, (2022). Financial Services in the Uganda Refugee Response; An assessment of user perspectives. Sources: IMPACT Initiatives, IRC, Save the Children. <https://reliefweb.int/report/uganda/financial-services-uganda-refugee-response-assessment-user-2022#:~:text=Download%20Report,PDF%20%7C%2016.35%20MB>

4.4 PREREQUISITES FOR AGRICULTURE SECTOR FINANCING IN UGANDA THROUGH AGRI-TECH PLATFORMS

Joseph Sanjula Lutwama¹



4.4.1: Background

Since Independence in 1962, agriculture has been the backbone of Uganda's economic life and the primary livelihood source for majority of rural households, and still accounts for more than two thirds of the total employment of the population (UBoS, 2022). Despite its tremendous role, agriculture now contributes less than one quarter of the overall Ugandan economy (UBoS, 2022). It is therefore not surprising that less than 15 percent of private sector financing is directed to agriculture (ibid)².

Through the Agricultural Credit Facility (ACF), the Government of Uganda has, since 2010, been providing credit to the agricultural sector to the tune of UGX 661 billion, with just under 30 percent of the total credit for agriculture originating from the private sector (BoU, 2022). Of the ACF funds, Government contribution so far

amounts to 51 percent with the private sector contributing the remaining 49 percent (BoU, 2022). The interest rate of on agricultural loans from this facility are capped at 12 percent per annum (BoU, 2022) which is six percentage points less than the market average lending rates (ibid). Even with the ACF, however, the financial market is only able to meet 65 percent of credit demand for agriculture (BoU, 2022). Moreover, most of the beneficiaries of this facility are medium-sized and large borrowers engaged in large-scale farming and agro-processing; and just under 30 percent of the ACF funds goes for on-farm activities where most of the farmers are engaged (BoU, 2022).

The other Government initiative focusing on increasing access to agricultural finance is the Uganda Agriculture Insurance Scheme (UAIS). This is a Public-Private Partnership (PPP) arrangement with the Agricultural Insurance Consortium (AIC)³ in which Government subsidises agricultural insurance premiums for farmers⁴. The Government subsidy ranges from 30 to 80 percent

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depending on the categorisation of the insurance product and geographical location of the farm. The main objective of the AIC is to ensure that a Ugandan farmer is largely protected against agriculture risks, especially production risks, by introducing measures which ensure indemnity sufficient to keep the farmer in business⁵. The UAIS also seeks to make it easy for farmers to access agricultural credit by protecting credit given out by financial institutions from the effects of specified agriculture risks⁶.

By the end of December 2021, a total of 303,000 farmers had benefited from the AIC insurance scheme, with over UGX 57 billion in insurance premium contribution; over UGX 16 billion in total claims pay-outs; and over UGX 818 billion of agricultural loans insured⁷ (MoFPED, 2022). Besides Government support, development partners, such as Agricultural Business Initiative (aBi) Finance, have also extended lines of credit (LoC) and credit guarantees to financial institutions to increase access to agricultural finance⁸. As of 31st December 2021, aBi Finance's outstanding LoC balance stood at UGX 122 billion and the outstanding guarantee portfolio was Ushs 123 billion (ABI Finance, 2022).

Despite concerted efforts by both Government and development partners to catalyse agricultural finance, however, most farmers are not accessing and actively utilizing formal agricultural financing mechanisms. According to the annual survey of agriculture, just over 5 percent of agricultural households are accessing formal banking finance; while almost one out of every two agricultural households source their agricultural finance from informal community-based savings and credit bodies (UBoS, 2020). As of now, the private sector is yet to find a more sustainable agricultural financing model that is not based on Government subsidies, concessional lines of credit and credit guarantees from development partners.

Most of the approaches to address the agricultural financing dilemma have focused on one dimension of agricultural finance- pricing, and yet financing agriculture is a much more complex challenge requiring a multi-

dimensional approach involving multiplicity of actors. This article therefore examines how financing agriculture in Uganda can leverage Agri-tech platforms to address the challenge of agricultural credit access. These platforms leverage technology to build networks among multiplicity of actors required to deliver more long-term sustainable agricultural financing solutions.

4.4.2: The fundamental challenge of financing Ugandan agriculture

The fundamental challenge with financing agriculture in Uganda is the predominance of small-holder farmers and subsistence farming. These two fundamental features of the country's agriculture have tremendous impact on production practices and productivity. These in many ways stifle interest in, and space for, agricultural financing.

a) Scalability. Agriculture as practiced by smallholder farmers is highly fragmented, with scattered fields diverse crop and livestock types, and limited or no specialisation at all. This limits large-scale growth and transformation and the amount of capital such a farmer requires from financial institutions. Loan targets for smallholder farms are tiny in volume, geographically scattered and too costly to process, deliver and supervise, and yet they are high risk and yield very low returns. Where financial institutions to provide capital for such agriculture, therefore, it will come at too high interests for them to earn decent returns. This is why banks shun lending to smallholder farmers, and agricultural financing is dominated by medium and large-scale enterprises engaged in large-scale farming, agro-processing, trade and export (BoU, 2022).

b) Limited or no specialisation. Most smallholder farmers actually engage in agriculture to meet their basic household needs rather than for commercial interests (UBoS, 2020). As such, they put no effort into adopting better agronomic practices to maximise and optimise yields, output and quality. It is common to find a wide variety of crops grown on a small piece of land, which

makes it difficult to specialise and maximise yields, quality and unit outputs. In such circumstances, therefore, farmers will not find any value in seeking formal credit because their informal sources of funds are more than sufficient to meet their limited financial needs.

c) Persistent fluctuation of agricultural prices and unpredictable incomes. The small-scale nature and the high levels of informality of Ugandan agriculture makes it susceptible to climatic shocks and market volatility of demand and supply, with persistent uncertainties and fluctuation of agricultural prices. Consequently, agricultural earnings and incomes are too unpredictable thereby rendering farming much riskier to finance.

d) Lack of access to markets. The unpredictability of small farm incomes is further exacerbated by unreliable supply and low produce volume and quality which undermine access to reliable and profitable markets. Access to markets is critical in ensuring that farmers have predictable incomes and stable cashflows which attract and guarantee access to finance. High levels of informality and lack of specialisation further hinder Ugandan farmers from developing production skills and securing big markets that require consistency in the supply and quality of Uganda's agricultural products. These farmers are therefore not attractive to financial institutions that require low risk, large-scale, long-term borrowers that can provide, secure, large and stable outlets for lending. In the circumstance, agricultural lending remains a huge challenge.

4.4.3: The Promise of Agri-Tech Platforms

Agri-Tech platforms leverage technology to address the perennial challenges of informality and limited access to markets in agriculture ecosystems. Technology reduces costs of interaction between the different actors, whilst increasing levels of transparency and integrity with digital trails of all transactions in an ecosystem (WSBI, 2021; AGRFIN, 2021; Ezinne M. Emeana, 2020). This is possible because the Agri-Tech platforms bring to the agriculture

finance ecosystems huge capabilities and advantages, some of which are presented below.

i) Economies of scale. Agri-Tech platforms can aggregate outputs of many smallholder farmers into much bigger volumes that not only reduce unit costs of accessing markets but also enable bargaining for much better prices. The smallholder farmers have far better chances of striking better deal when they are part of a bigger, aggregated pool of farmers than if they were to engage markets on individual basis with far smaller outputs and erratic supply.

ii) Economies of scope. Besides facilitating access to markets and other value chain actors, Agri-tech platforms can provide a wide range of bundled services that are critical to both agricultural development and agricultural financing. With one digital wallet at a single composite cost, a farmer can make payments for agricultural inputs and receive payments for harvests supplied, save, take out a loans, and access agricultural insurance and a wide range of other value-added services. The increased bundling of other value-added services followed by increased volumes and values of transactions will bring down the unit cost of each transaction, thereby adding value to the farmer for every transaction made on the platform.

iii) Risk-based credit decisions. Agri-Tech platforms collect huge data on farmers, making risk-based approach to credit decision possible. Such approach to credit decision making is critical in increasing credit access at more appropriate costs. Using the farmer database, Agri-Tech platforms can correctly assess the risks farmers and their businesses face, which making determination of the credit a farmer should be granted and the commensurate cost to charge for the level of risk. This builds mutual trust in the financing of agricultural investments.

4.4.4: Challenges the Agri-Tech Platforms Face

Despite the promises that Agri-Tech platforms bring to agricultural finance ecosystems, their implementation and access are yet to be scaled up for the system to have meaningful impact on agricultural financing in Uganda. In this regard, three fundamental challenges need to be urgently addressed.

i) **Underdeveloped data ecosystems.** The Agri-Tech platforms in Uganda are yet to build sufficient pools of data on their agricultural customers to generate insights that would give financial institutions sufficient confidence to leverage such data to inform their credit decisions. This would require that the Agri-Tech platforms move beyond purely agricultural data, and to tap into other pools of non-agricultural data in order to provide more comprehensive and robust farmer and borrower profiles.

ii) **Digital financial illiteracy.** The other challenge is the low levels of digital financial literacy among farmers and other value chain actors. Most of value chain actors, especially smallholder farmers, are both financially and digitally illiterate, which make it difficult for them to independently engage with other Agri-Tech platform participants. The more independent the Agri-Tech participants, the less costly it is to access financial and other related services because no or only few agents are required to facilitate the transactions on the Agri-Tech platform.

iii) **Unsustainable business models.** As is the case in other developing markets in Africa (Emeana, 2020), most Agri-Tech platforms in Uganda are yet to achieve business models that can provide sustainable financing solutions to the agricultural sector. Most Agri-Tech platforms are heavily reliant on selling their technology solutions in forms of digitisation, and on providing one-dimensional services, such as digital payments and agricultural information services, rather than linking and creating networks among various value chain actors

to deliver multiplicity of value-added services. A one-dimensional business model is not sustainable because it requires a bigger market of value chain actors in need of digitisation services which is not the case in a small market like Uganda.

4.4.5: Policy Options

In light of the above review, several policy actions critical to realizing the full potential of Agri-Tech platforms in catalysing agricultural finance in Uganda need to be implemented. For now, three policy actions should be seriously considered and prioritised.

i) **Digital financial literacy.** The first policy action is to strengthen the systems and structures required to quickly attain national financial literacy. Financial and digital literacy are a public responsibility because they are public goods with no direct financial incentives to drive private sector investment. Beyond just having a financial literacy strategy, therefore, Government must proactively fund and put in place requisite structures and systems to execute and manage implementation of this strategy.

For instance, Government can set up a financial literacy fund financed by fees levied on financial institutions, as is the case with Rural Communications Development Fund (RCDF,⁹ with a mandate to implement and oversee such a national financial literacy strategy. If a similar financing strategy as for the RCDF is applied to the financial sector, more than UGX 500 billion¹⁰ can be raised annually to fully finance execution of the financial literacy and inclusion strategies.

ii) **Universal access to reliable and affordable internet.** At the heart of any digital strategy is universal access to reliable and affordable internet. This requires a well-developed internet infrastructure that extends beyond the urban centers to cover the entire country. In addition, there is need for an enabling business environment that incentivises innovation and competition in the market to spur competition and promote affordable

internet rates. This will require, among many other things, strengthening of the competition policies and regulations in the telecommunications sector as the leading provider of internet services.

iii) Universal access to affordable digital tools. To encourage uptake of digital financial services, Government needs to provide enabling environment to facilitate universal access to affordable digital tools, especially smartphones and digital tablets. While close to half of adult Ugandans own basic phones, such phones do not have user-friendly interfaces and good user experience in uptake of financial services. This is especially true for the digitally illiterate who make up the bulk of the farmers in the country, and can benefit from adoption of smart phones, not only for financial services and market information but also for weather forecast that is vital in planning farming activities.

Given the enormous benefits that can accrue, Government should, for instance, consider waiving all taxes levied on these digital tools and even go further to subsidise their purchase so that their costs are reduced and their access enhanced. While in the short-term this will cost Government significant revenue, the sacrifice is a worthwhile investment to increase the adoption of digital financial services which will have multiplier effect not only on agriculture but on education, health, service sector and the economy.

References

aBi, (2022). aBi 2020 Ltd 2021. Annual Report. Kampala: aBi Finance Ltd. Accessed from <https://www.abi.co.ug/reporting-resources/annual-reports/>

AGRFIN, (2021). DigiFarm Panel Study: Aggregate Report. Nairobi: Mercy Corps. Retrieved from <https://www.mercycorpsagrifin.org/2021/05/26/the-impact-of-digifarm-on-smallholder-farmers/>

BoU, (2022). Agricultural Credit Facility Progress Report December 2021. Kampala: Bank of Uganda. Accessed https://www.bou.org/ug/bouwebsite/bouwebsitecontent/AgriculturalCreditFacility/2021/ACF_Report-for-the-period-ended-December-31-2021.pdf

Emeana, L. T.-S., (2020). The Revolution of Mobile Phone-Enabled Services for Agricultural Development (m-Agri Services) in Africa: The Challenges for Sustainability. Sustainability, 12(2), 485. Retrieved from <https://doi.org/10.3390/su12020485>

Anderson, J. R. K., (2019). Smallholder Households: Distinct Segments, Different Needs. Washington DC: CGAP (Consultative Group to Assist the Poor). Accessed from https://www.cgap.org/sites/default/files/publications/2019_04_Focus_Note_Smallholder_Households_Distinct_Segments_Different_Needs.pdf

MoFPED, (2022). Background to the Budget 2022/23 Fiscal Year. Kampala. Ministry of Finance, Planning and Economic Development. Accessed from <https://www.finance.go.ug/publication/background-budget-202223-fiscal-year>

UBOS, (2020). Uganda Agricultural Survey Report 2018. Kampala: Uganda Bureau of Statistics. Accessed from https://www.ubos.org/wp-content/uploads/publications/AAS_2018_Report_Final_050620.pdf

UBOS, (2021). Uganda National Household Survey 2019/20. Kampala: Uganda Bureau of Statistics. Accessed from https://www.ubos.org/wp-content/uploads/publications/09_2021Uganda-National-Survey-Report-2019-2020.pdf

UBOS, (2022). 2021 Statistical Abstract. Kampala: Uganda Bureau of Statistics. Accessed from https://www.ubos.org/wp-content/uploads/publications/01_20222021_Statistical_Abstract.pdf

WSBI, (2021). Savings and Retail Banking in Africa: A case study on digital platforms serving the agricultural sector. Brussels, Belgium: World Savings and Retail Banking Institute. Accessed from <https://www.findevgateway.org/paper/2021/11/savings-and-retail-banking-africa-case-study-digital-platforms-serving-agricultural>

Endnotes

- 2 http://www.bou.or.ug/bou/rates_statistics/statistics.html
- 3 The AIC is a consortium of 11 insurance companies that underwrite the insurance policies under the UAIS.
- 4 https://aic.ug/wp-content/uploads/2021/11/AIC-Magazine-Jan-2021-_-Is-sue-1.pdf accessed on 20/12/2022
- 5 ibid
- 6 ibid
- 7 https://aic.ug/wp-content/uploads/2021/11/AIC-Magazine-Jan-2021-_-Is-sue-1.pdf accessed on 20/12/2022
- 8 <https://www.abi.co.ug/abi-finance-ltd-home/> accessed on 20/12/2022
- 9 The Rural Communications development Fund (RCDF) is a Universal Service Fund (USF) to communications in Uganda. It was established in 2003 and it is administered at arms' length by the Uganda Communications Commission (UCC). The telecommunications companies' annual turnover is charged 1 percent in fees that goes towards financing this fund.
- 10 This is 1 percent of the total income of the Ugandan commercial banking sector for 2021



5

CHAPTER MANAGING AGRICULTURAL RISKS

5.1 UGANDA AGRICULTURE INSURANCE SCHEME: AN UPDATE ON IMPLEMENTATION PROGRESS

Munyaradzi Daka¹



5.1.1: Background

Uganda is a major crop and livestock producer in Eastern Africa, and is net exporter of food crops to the Region with huge potential to play a much bigger food supply role. However, its agricultural production potential is increasingly being exposed to various risks which include the ever changing and unpredictable climate extremes of drought, excessive rainfall, hailstorms, and pests and diseases of crops and livestock. In the Mount Elgon region, for example, frequent landslides and floods partly resulting from heavy rains have led to loss of lives, properties and livelihoods.

In July 2022, in and around Mbale City at least 30 people were recovered from flood waters; and estimated 5,600 people were displaced and 400,000 were cut off from the national water grid (WaterAid, 2022). In contrast, the same year in the Karamoja at least 518,000 people, 40 percent of the region's population, faced high levels of food insecurity due to drought, 24,581 children and 3000

pregnant women were treated for acute malnutrition, and more than 200 people died of hunger (Mwijuke, 2021).

Weather risks and climatic shocks are now key constraints to production and wealth accumulation, particularly for farmers in rural areas who are engaged in agricultural activities. Climate Change mainly manifests in two attributes- rainfall and temperature. An analysis of average annual temperatures between 1951-1980 and 1981- 2010 shows notable increase of approximately 0.5 - 1.2 °C for minimum temperatures and 0.6 - 0.9 °C for maximum (USAID, 2013). This warming trend is projected to continue, with some models projecting an increase of more than 2 °C by 2030 (*ibid*). With Climate Change, there have also been unexpected emergence of pests and diseases of crops and livestock. In Uganda in June 2022, for example, Swine fever outbreaks in Masaka district and parts of northern Uganda killed thousands of pigs (Katumba, 2021).

While building resilience and mitigation measures will

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help, because modern farming is an investment process involving borrowing from banks and credit institutions, the emerging climatic risks and potential financial losses by farmers can only be best addressed through agricultural insurance. In this article, therefore, progress on the implementation in implementation of the Uganda Agricultural Insurance Scheme (UAIS) is reviewed; persistent challenges are reviewed, and policy related action for deepening agricultural insurance in Uganda are suggested.

5.1.2: The Uganda Agricultural Insurance Scheme

The Uganda Agricultural Insurance Scheme (UAIS) was started in Fiscal Year 2016/17 as a 5-year pilot scheme operating under Public- Private Partnership (PPP) between the Government of Uganda and the private sector. The objective was to cushion farmers against production losses and to mitigate financial losses suffered from natural disasters beyond their control.

Under the scheme, the Government of Uganda annually provided UGX 5 billion premium subsidy on agriculture insurance with a view to encouraging small and large-scale farmers to buy agricultural insurance cover for their crops and livestock, in addition to enabling them attract financing for their agricultural enterprises. This scheme has created a symbiotic relationship between the public and private sector; and the mutually beneficial public-private sector relationship has created effective insurance portfolios that are affordable and achievable and that is helping built strong participation by the farming community in agricultural insurance.

This Government-subsidised UAIS is implemented across five (5) regions of the country, i.e. the Western, Eastern, Central, West Nile and Northern, and targeted mainly small-scale farmers who are the majority actors within Uganda's agriculture sector. The UAIS has been implemented through direct farmer interface; farmer cooperatives, SACCOs, Area Cooperative Enterprises (ACEs), Village

Saving Loan Schemes (VSLAs), financial institutions by insurance of loans disbursed purposely for agricultural production, and by insurance companies through their countrywide branches and broking fraternities.

5.1.3: Update on Progress in UAIS Implementation

To appreciate progress so far made in UAIS implementation, it is important to evaluate changes in the nature and scale, if any, of the insurance products offered, insurance premium and Government subsidy is undertaken; subsidy allocation, coverage and outreach; and insurance volumes and claim pay outs.

a. UAIS insurance premium and Government subsidy. Under the scheme, the basic premium is a proportion of the total value of insured crops or livestock, of which farmers pay to the Agro Consortium between 2 to 6 percent of the total value of the crops/livestock insured. The basic premium and Government-approved subsidy allocations per category of farmers are shown in Table 21.

Through the scheme, Government pays to Agro Consortium 50 percent and 30 percent of the basic premium for small-scale and large-scale farmers, respectively. These rates apply countrywide except in areas that are known to be high risk and are prone to frequent natural disasters (namely, Isingiro, Kasese, parts of Mt. Elgon, and Teso, Karamoja and West Nile sub-regions). In these areas, farmers pay 10 percent of the total value of the insured crops/livestock as basic premium; which is almost double the premium paid by farmers in low-risk areas. In the high-risk areas, Government subsidy is similarly high (80 percent), with the farmers paying only 20 percent of the basic premium. These premiums will certainly be revised downwards when many farmers enroll in the scheme.

b. Type of insurance products offered under the UAIS. There are two broad types of insurance products provided under the UAIS: (i) multi-peril/risk insurance, i.e. multi-peril crop insurance, livestock insurance and

aquaculture insurance; and (ii) weather index insurance, i.e. crop weather index insurance and livestock weather index insurance. The priority enterprises and risks covered by each insurance product are presented in Table 22.

c. Premium subsidy allocation and utilisation. Since FY2016/17, Government has allocated on an annual basis UGX 5 billion to cater for the insurance premium subsidy. The spread in Government subsidy allocation for the main agricultural sectors and the percentage allocation for types of farmers under the scheme is summarised in Table 23.

Table 21: Government approved UAIS premium subsidy allocation (per farmer category)

Farmer category criteria defining scale of	Criteria defining scale of operation	Government subsidy (% of basic premium)
Crops		
Small-scale	0-5 acres	50%
Large-scale	> 5 acres	30%
Small and large scale farmers in high risk, disaster prone areas	Listed districts by Government	80%
Poultry		
Small scale	500-2000 birds	50%
Large scale	> 2000 birds	30%
Cattle		
Small scale	1-30 cows	50%
Large scale	> 30 cows	30%
Pigs, goats, sheep		
Small scale	1-50	50%
Large scale	> 50 pigs	30%
Fish	Considered all large scale	30%

Source: Insurance Regulatory Authority (2022) and Agro Consortium UAIS Brochure (2022)

Table 22: Description of insurance products offered under the UAIS

Type of insurance product	Enterprises covered	What the insurance product covers
Weather Index Insurance	Crop- maize, beans, coffee, bananas, tea, cotton, sunflower, and oil seeds	Drought, excessive rainfall
Multi Peril- crop insurance	Crop- maize, beans, coffee, bananas, tea, cotton, sunflower, and oil seeds	Drought, excessive rainfall, fire, lightning, floods, hailstorms, windstorms, landslides, earthquakes
Livestock Insurance	Livestock- dairy cattle, exotic beef cattle, local cattle, fish farms, pigs, and poultry	Death due to uncontrollable pests and diseases, fire, lightning, frost, rainstorm, floods, hailstorms, landslides, snake bites, surgical operation, electrocution, snake bites
Aquaculture insurance	Fish- <ul style="list-style-type: none"> Fish farms established in lakes or rivers. Fish farms established on land. Grow out operations and hatcheries. Aquaculture equipment: boats, moorings, cages, and feed barges 	- Death of fish due to pollution, theft, predation, storm, lightning, tidal wave, collision and Structural failure of equipment. -Freezing and super cooling, de-oxygenation of water, other changes in water including salinity. -Disease, drought, Fire, lightning, explosion, earthquake, Mechanical breakdown or electrical breakdown at onshore farms.
Plantations insurance	Forestry and plantations	Fires, Lightning, Explosions, Aircraft damage
Poultry insurance	Chicken, Turkeys, Ducks	Death due to fire, lightning, Flood, cyclone/ storm/ tempest/ earthquake, drought, excessive rainfall, uncontrollable diseases

Source: Agro Consortium UAIS Brochure (2022)

Table 23: Trends in approved government subsidies (for payment of basic premiums)

Period	July 2016- June 2021	July 2021- June 2022
Approved premium subsidies (Billion UGX)	25,000,000,000	5,000,000,000
Actual premium subsidies paid by GoU for farmers (billion UGX)	23,670,884,375	1,918,800,000
Share of subsidy absorbed (%)	94.6	38.3

Source: Agro Consortium UAIS Brochure (2022)

d. UAIS coverage and outreach. Since 2017, the number of farm businesses insured under the UAIS in Uganda have increased fourfold, from 68,361 in 2017/18 to 265,049 in 2021/22. As shown in Table 24, Western Region accounts for the highest share (34%) of the total number of insured farmers. The region is followed with very similar volumes by Eastern (26.3%) and Central Region (26.3%). Northern region registered the lowest share of farmers insured under the UAIS (13.2%), while still registering an increase from 10.4 percent in 2017/18.

Even then, the regional disparities in number of insured farmers do not necessarily reflect huge inequality in subsidy distribution because of differences in the population of subsistence farmers. Among Regions, the Western region has the highest number of UAIS subsidised farmers, it actually accounts for only 3.9 percent of the UAIS insured subsistence farmers in that region. Similarly, although Eastern Region ranks second in the number of UAIS subsidised farmers, this is only 2.9 percent of the population of subsistence farmers insured in that Region;

while the Central Region has a higher percentage (6%) of farmers covered under the UAIS subsidy scheme. Northern Region remains comparatively the lowest UAIS subsidy coverage, since the number of insured farmers from that Region translates to only 2 percent of the population of subsistence farmers.

From the foregoing, it is evident that there has been tremendous growth in the number of farmers insured under the UAIS subsidy scheme across Uganda. The progress and successes were largely achieved through nation-wide farmer group trainings, radio talk shows and media coverage in newspapers, magazines and television broadcasts. Nevertheless, more sensitisation and awareness creation on the UAIS scheme are required to bring more farmers on board, especially from Northern Uganda.

e. Value of agricultural enterprises insured.

Considering sum value of insurance cover under the UAIS scheme, disparities in disaggregated values of insured

Table 24: Regional coverage and outreach of the UAIS

	Central	Eastern	Northern	Western	National
Number of farmers insured under the UAIS as at June, 2022	69,578	69,617	34,885	90,969	265,049
UAIS insured farmers as a percentage of the population of subsistence farmers (%)	6.0	2.9	2.0	3.9	3.5
Share of UAIS insured farmers (%)	26.3	26.3	13.2	34.3	100
Population of subsistence farmers in FY 2019/20 (000s)	1,157	2,377	1,703	2,319	7,556

Source: 2021 UBoS Statistical Abstract and FY2021/22 UAIS Progress Report

Table 25: Value of insured crops/animals disaggregated by region

Region	Number of Farmers	Sum insured (UGX Billions)		% Growth	Share of value/ sum insured (%)	
		FY 2019/20	FY 2021/22		FY 2019/20	FY 2021/22
Central	69,578	390.4	486.5	24.6	37	37
Western	90,969	422.5	523.7	23.9	40	40
Northern	34,885	100.2	126.4	26.1	10	10
Eastern	69,617	140.6	186.8	32.8	13	14
National	265,049	1,053.9	1,323.7	25.6	100.0	100

Source: 2021 UBOS Statistical Abstract and FY2021/22 UAIS Progress Report

enterprises by Region and performance are still quite evident (Table 25). Between FY 2019/20 and FY 2021/22, the value of crops and livestock insurance grew by an average of 25.6 percent.

The rate of growth was highest in Eastern Region (over 32%) followed by Northern Region (26.1%), while Western Region registered the least growth (23.9%). The impressive performance in eastern Uganda is largely attributable to the greater training and sensitisation campaigns carried out in this Region. As GoU continues to roll out the UAIS scheme, continuous large-scale training and sensitisation will be required.

Considering the share of value insured, the Central and Western Regions account for the largest shares of the value of agriculture insured, i.e. about 37 percent and 40 percent, respectively, for both FY2019/20 and FY 2021/22;

while the Eastern and Northern Regions registered poor performance in terms of value insured. This means that the values of enterprises insured by individual farmers in the East and the North remain low relative to those of the other Regions. Northern Region trails all other Regions both in numbers of insured farmers and value insured. As the UAIS rollout continues, therefore, efforts should be geared towards closing the current regional inequalities in insurance coverage.

f. Insurance claims pay-outs. Insuring agricultural investments aims to cushion farmers in the event of loss related to risks to the insured agricultural production. In this regard, Table 26 shows that UGX 15.2 billion was paid out in claims as at the end of FY 2020/21. A disaggregation by claims pay-outs also reveals that multi-peril crop insurance accounts for more than half (56%) of the total claims, followed by Crop Weather Index

Table 26: UAIS claims as at end of FY2020/21

Insurance Product	Total Claims	
	Claim amount (UGX)	Percentage Share of claim Amount (%)
Multi-Peril Crop Insurance	8,457,451,527	55.6
Poultry Insurance	1,119,876,933	7.4
Area Yield Index	272,128,636	1.8
Crop Weather Index Insurance	4,917,889,129	32.3
Aquaculture Insurance	180,493,230	1.2
Livestock Insurance	263,228,156	1.7
All Insurance Products	15,211,067,611	100

Source: Author's compilation based on FY2021/22 UAIS Progress Report

Insurance (32.3%) and poultry insurance (7.4%).

These levels are not surprising since multi-peril crop insurance is the most purchased product with respect to value insured. Barungi (2019) reported that Uganda's crop agriculture is faced with multiple risks (such as pests and diseases, drought and windstorms) which are covered under the multi-peril insurance. Moreover, multi-peril insurance is more comprehensive than the other insurance products.

As in these findings, farmers are increasingly embracing crop weather index insurance. On the hand, aquaculture (1.2%), livestock (1.7%) registered the lowest claims pay-outs. Aquaculture and livestock insurance are the least purchased products perhaps because there are fewer farmers engaged in these enterprises compared to crop farming. Evidence presented assures that farmers insured under the UAIS scheme are compensated in the event of losses regardless of type of agricultural invests

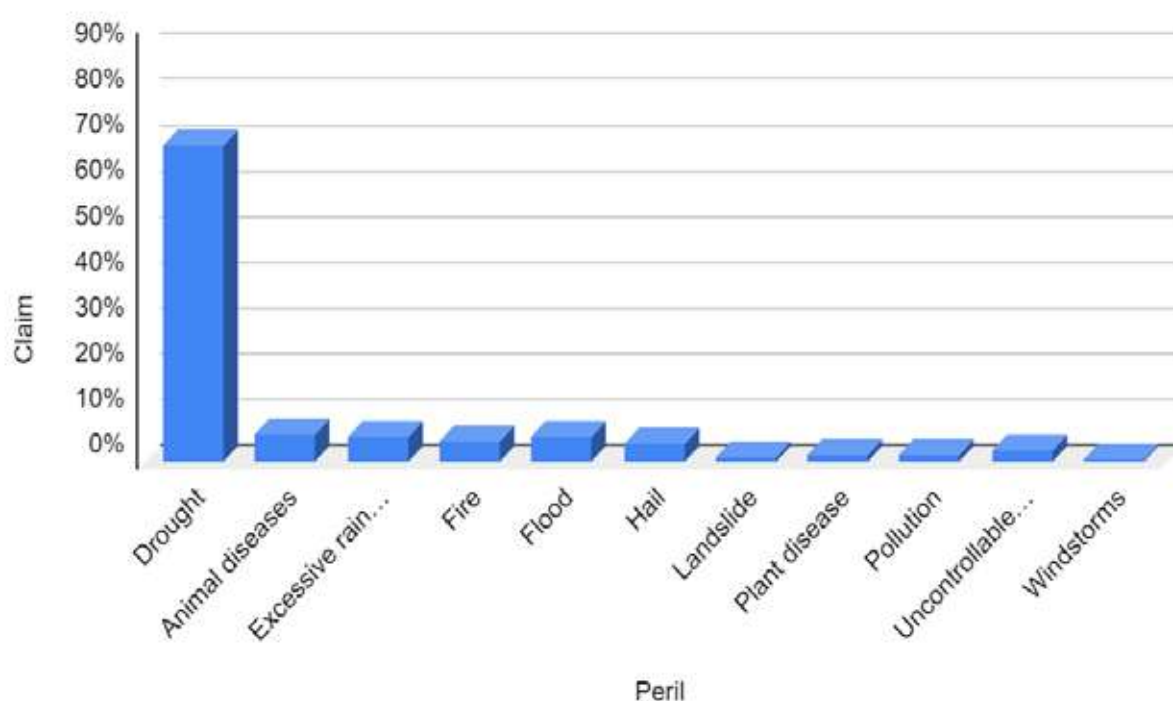
insured.

Considering claims per peril (Figure 34) drought is the greatest cause of loss as noted under the Scheme. Of the UGX 15.2 billion paid out, drought took up 69 percent of total claims, followed by animal diseases (6%) and floods (5.5%). The extent of loss suffered because of drought has thus led to emphasis on promoting the Weather/ Drought Index insurance product which is also more practical and appropriate for smallholder farmers than the other products.

5.1.4: Updates on Policy Incentives to Deepen Uganda's Insurance Sector

Together with efforts to promote the UAIS initiative as a key means of supporting and empowering Uganda's agriculture sector in spite huge challenges, efforts have focused on policy development and strengthening to assure success to enable smooth running of the agricultural insurance industry. A key approach has been tax exemption.

Figure 34: Insurance claims per identified peril



Source: Adopted from UAIS Progress Report, FY2021/22

(i) Exemption of Value Added Tax on agricultural insurance. In a bid to spur uptake of agricultural insurance, effective 1st May 2019, Government indefinitely exempted agricultural insurance from VAT. The exemption is a step in the right direction since, until then, agricultural insurance was perceived to be expensive especially for the smallholder farmers. The exemption lowered insurance cost which eased farmer participation in the scheme.

(ii) Exemption of stamp duty on agricultural insurance. In the same spirit of VAT, following the of the 2022/23 National Budgetary by the MoFPED, the Stamp Duty Act 2014 was amended to remove the Stamp Duty tax on all agriculture insurance policies. This amendment was very affirmative and progressive because agriculture insurance beneficiaries were previously paying a Stamp Duty tax of UGX 35,000/- on each insurance policy.

The progressive changes made with the key support of MoFPED have gone a long way in making agricultural insurance affordable to subsistence farmers, thereby cushioning them against the risks of changing weather patterns arising from the effects of Climate Change. The country has also seen steady growth and increase in the number of farmers insuring their agricultural investments over the years, with dramatic increase in the participation of small-scale, low income farmers who were previously most affected by these tax obligations.

5.1.5: Persisting Challenges and Way Forward

From this review, it is quite clear that Uganda has made steady progress in entrenching agricultural insurance as a strategic element in the national promotion of agriculture, outputs and productivity. With progress, challenges also emerge as demonstrated below.

Due to the increased number of farmers taking up agricultural insurance, the turnaround time for inspection has been affected, with increased number of inspections being done by limited number of assessors

and loss adjusters. This is delaying policy processing of applications. There is now increasing need for specialist service providers to keep pace with the ever-growing insurance demand so as to uphold efficient management of farm inspection and claims management processes.

Secondly, the increased unpredictability of climatic conditions and weather requires constant adjustments and investments in tools in order to maintain progress made and results on the ground. These will increase the basic cost of insurance delivery. Structural changes and adaptability measures need to be constantly devised and implemented to ensure that farmers are shielded from escalation of costs. In the context of farmer field activity planning, training farmers in use of weather prediction programmes will go a long way in enhancing their prediction of weather changes and appropriately planning field operations in way that reduce risks in farming.

Thirdly, agricultural insurance literacy, appreciation and uptake are still low in some Regions of the country and among some farmer groups. This was exacerbated by two years of the COVID-19 pandemic lockdown which affected sensitisation activities. This challenge calls for infusion of more resources towards agricultural insurance promotion, mass training, and awareness creation to make agriculture insurance not just the privilege of a few but part and parcel of modern farming practices in Uganda.

Lastly, the task ahead to reach farmers throughout the country as well as to keep up with the challenges now emerging with higher insurance demand remains huge. Presently, the UGX 5 billion annual Government insurance subsidy is no longer sufficient; so further re-structuring should be considered to accommodate the increasing needs and demands. In this regard, the Agro Consortium through the Insurance Regulatory Authority has sought guidance from Government on how to reallocate subsidy provisions to support the categories of small-scale, large-scale and high-risk farmers. Government should respond to this request, and to the other issues and concerns earlier discussed, in order to strengthen Uganda's agriculture

sector, transform production and productivity, and enable the country to tap its huge agricultural potential to banish poverty and hunger and truly transform the country.

References

- Barungi, M, (2018). Uganda agriculture insurance scheme: Progress, challenges and lessons. Agricultural Finance Yearbook 2019. Pp; 16-24. Economic Policy Research Centre, Kampala, Uganda
- Katumba, W., (2021). Uganda: African Swine Fever Kills Over 100 Pigs in Masaka. Accessed at <https://allafrica.com/stories/202106180715.html>
- Mwijuke, G., (2022). Erratic rains, drought and raids leave Karamoja hungry. The East African Newspaper. Accessed from <https://www.theeastafrican.co.ke/tea/news/east-africa/erratic-rains-drought-leave-karamoja-hungry-3541072>
- USAID, (2013). Uganda Climate Change Vulnerability Assessment Report 2013. Accessed from <https://www.climatelinks.org/resources/uganda-climate-change-vulnerability-assessment-report#:~:text=The%20assessment%20found%20that%20Uganda,of%20disease%20and%20pest%20infestations.>
- WaterAid, (2022). Floods in Eastern Uganda kill at least 30 people and leave 400,000 without access to clean water. News and Press Release> Accessed at <https://reliefweb.int/report/uganda/floods-eastern-uganda-kill-least-30-people-and-leave-400000-without-access-clean-water>

5.2 IMPLICATIONS OF THE RUSSIA-UKRAINE WAR ON UGANDA'S FERTILISER AND WHEAT SUPPLY

Justine Luwedde¹ and Florence Nakazi²



5.2.1: Background

Since February 2022, the war between Russia and Ukraine has caused disruption in food and input supplies worldwide, partly because both Russia and Ukraine are major global exporters of grains, fertilisers, oil and gas (FAO, 2022; Hassen and El Bilali, 2022). Together, the two countries account for 25-30 percent of global wheat exports that many countries, Uganda inclusive, depend on for making bread, and many food items (Nhemachena *et al.*, 2022). Over the past 12 months, the domestic prices of various commodities, including fuel, cooking oil, soap, fertilisers and cereals, soared to unprecedented levels, increasing the consumer price index from 117 in March 2022 to 125 in January 2023.

For wheat and fertilisers, Uganda is a net importer, and depends on imports for over 96 percent of its wheat and 100 percent of its fertilisers (MAAIF, 2020; Diao *et al.*, 2022). During 2021, Uganda imported 40 percent and

20 percent of wheat and NPK fertiliser, respectively, from Russia and Ukraine (ITC Trademap, 2022). Because Uganda had experienced price shocks and disruptions in the supply chain of the aforementioned commodities due to the COVID-19 pandemic, the Russia-Ukraine war further increased pressure on its already strained economy. Given the fact that expenditure on food comprises the largest percentage of household costs in Uganda (41%), compared to other costs such as housing, water, electricity, gas, fuel and education (UBoS, 2021), the disruption in wheat supply is constraining food availability and consumption.

On the other hand, both commercial and smallholder farmers in Uganda face uncertainties in accessing or buying fertilisers due to limited supply and increased prices. By virtue of the country's position as "net importer" of both fertilisers and wheat, the global crises and in particular the war between Russia and Ukraine, has had severe effects on import volumes commodity prices in the Ugandan market. Because of the importance of agriculture to Uganda, and the country's dependence on

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imports to spur and sustain production and productivity, we specifically examine in this Section the impacts and implications of the Russia and Ukraine crisis on Uganda's wheat and fertiliser imports, availability and prices.

5.2.2: Why Fertilisers and Wheat in Uganda?

In Africa, Uganda is one of the most endowed countries in terms of agricultural potential, largely because of its originally fertile soils, mild climate, relatively reliable rainfall, two cropping seasons, and many lakes and rivers with huge potentials for irrigation and fish production. Yet, due to Climate Change, high population growth, land fragmentation and declining soil fertility, the country now faces the major challenges of modernising its agriculture and increasing production and productivity to meet growing demands. With the country's growing urbanisation and prosperity, food tastes are also changing further imposing demand for import of exotic foods. Herein lies the issue of fertilisers and wheat.

5.2.2.1: Fertiliser in Uganda's agriculture

Due to stagnating agricultural outputs and declining soil fertility in the country, both the Uganda Vision 2040, and the Agricultural Sector Strategic Plan (ASSP) 2020/21-2024/25- the planning framework of the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF), emphasize the important role fertiliser use plays in agricultural production and productivity. Yet fertiliser use in the country remains a major challenge of agriculture.

The 2006 African Union Summit Abuja Declaration on fertiliser recommended African countries to apply at least 50 kilogrammes of nutrients per hectare by 2015 to attain and sustain the 6 percent annual growth target in the agricultural sector set out in the Comprehensive Africa Agriculture Development Programme (CAADP). This target is far from being achieved in most countries as exemplified by the currently highly varied fertiliser use levels of 45 kg/ha in Ethiopia, 146 kg/ha in Malawi, 4.5 kg/ha in Niger, 128 kg/ha in Nigeria, and 16 kg/ha in Tanzania (World

Bank, 2018).

With the current average fertiliser use level of less than 2kg/ha, Uganda is far from achieving the Africa continental, and ranks among the least users of fertiliser across Sub-Saharan Africa. Nevertheless, the 2019 Uganda Annual Agricultural Survey estimated fertiliser use at 24 percent of farmers (UBoS, 2020), which is a significant milestone in the largely smallholder based farming. Significantly, therefore, the fact that Uganda relies on imported fertilisers means that rising fertiliser prices, exacerbated by the Russia-Ukraine war, have severe implications for the country's farmers, food production and availability and export of agricultural produce on which it depends. Serious consideration must therefore be urgently given to developing local fertiliser production and promoting wide-scale use by farmers.

5.2.2.2: Wheat in the Uganda food basket

Expenditure on account for the largest share of household expenses (41%) compared to other costs, such as accommodation, water, electricity, gas and other fuels (18%), and education (7%) (UBoS, 2021). This food need for food in household has been instrumental in shaping the food market and eventual wheat imports for Uganda.

Records show that, for the past 11 years, most of the wheat (96 percent) consumed in Uganda is imported (Figure 35). Many food-based businesses use wheat in their daily production as part of the agro-industrialisation efforts; with wheat milled and used as flour for the preparation of bread, buns and chapatti, and the industrial production of biscuits, noodles and pasta.

To this effect, and with more than 96 percent of the wheat and wheat-based products consumed in Uganda being imports, the Russia-Ukraine war that has curtailed availability of wheat in the world markets has had very serious effects on the country, particularly due to rising wheat and food prices for urban dwellers. As a backstop measure and to reduce dependence, therefore, the Government of Uganda needs to seriously consider

Figure 35: Share of imports in Uganda's wheat supply (%)


Source: Authors construction using data from FAOSTAT

reviving, promoting and supporting the local growing of wheat in Kapchorwa, Nebbi and other areas suited for the crop.

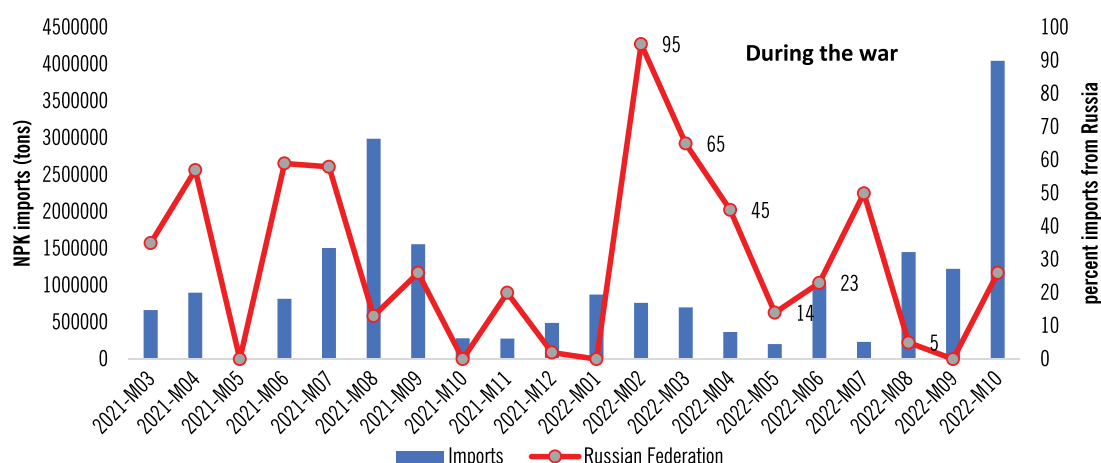
5.2.3: Implications of the ongoing war on wheat and fertiliser supply and prices

Being a major factor in Uganda's agricultural activity and progress, the implication of the Russia-Ukraine war is further considered in greater depth, particularly in respect to: (a) supply disruptions, and (b) price transmissions that affected our supply and use of fertilisers and wheat supply and consumption.

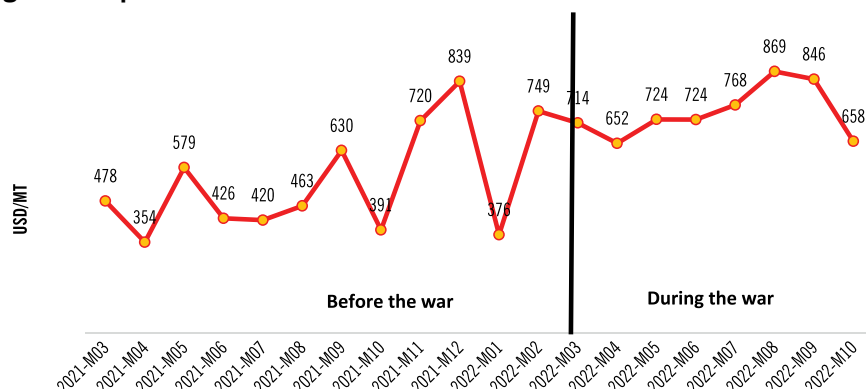
5.2.3.1: Supply and use of fertiliser

Since March 2022, Uganda faced a downward trend in total supply of NPK fertilisers, at the same time that the global shortage of NPK fertilisers grew (Figure 36). Before the war, Uganda was importing 30 percent of its fertiliser from Russia but this share dropped to around 28 percent between March-September 2023 (Figure 36), with dramatic increases in prices. Before the outbreak of the Ukraine war, the increases in prices were attributed to weather-related disruptions and increased transportation costs due to outbreak of the COVID-19 pandemic.

The World Food Programme notes that global fertiliser

Figure 36: Uganda's NPK fertiliser import dependence on Russia


Source: Authors compilation using data from ITC trade map

Figure 37. Changes in the price of NPK fertilisers

Source: Authors compilation using data from ITC trade map

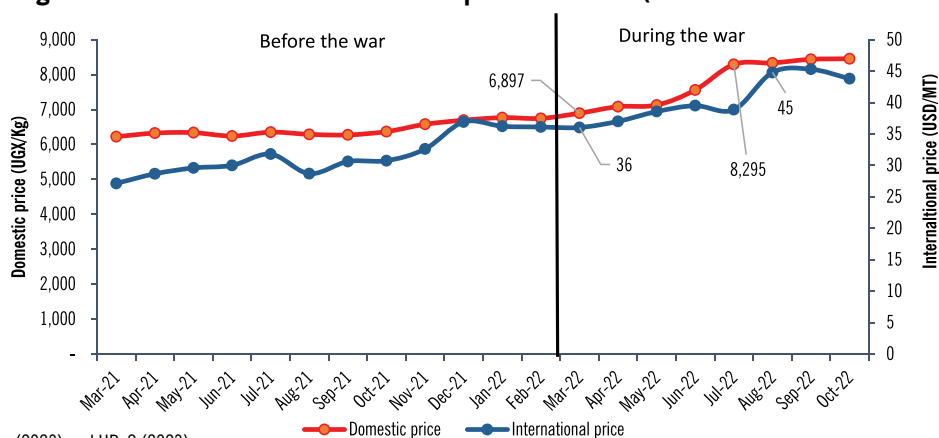
prices had risen by 199 percent since May 2020 due to supply constraints; and Uganda was only able to import 50 percent of its NPK fertiliser needs in July 2022. This was possible because of the United Nations and Turkey's Black Sea Grains Initiative which allowed Ukraine to export fertilisers to other countries to overcome the supply crisis. This experience calls for Government to revisit its plans of setting up of a phosphate factory in Tororo envisioned in the Uganda Fertiliser Policy of 2016 so as to secure internal supply and address shortages due to shocks.

Before the Ukraine war (February 2022), the prices of NPK and other fertilisers were already high, and the war only exacerbated them (Figure 37). From March 2022, the international price of NPK increased by 22 percent from USD 714 to USD 869 in August 2022. This arose from the decline in global NPK shipments by the two global exporters of NPK fertilisers- Russia and Ukraine (Chadza *et al*, 2022).

Disruptions in fertiliser supplies caused by the war were also reflected in increased cost of inputs for plantation and large-scale crops such as sugar cane, oil palm, maize, sunflower and soybean that require use of a lot of inorganic fertilisers. Information from sugar estates that sugarcane millers even stopped offering fertiliser input loans to out-growers. The fertiliser price shock also adversely affected poor and rural households, and most ended fertiliser use for their crops because of limited availability and access high prices. The lowered production and productivity seriously affected agricultural household income earnings in the country (Diao *et al.*, 2022).

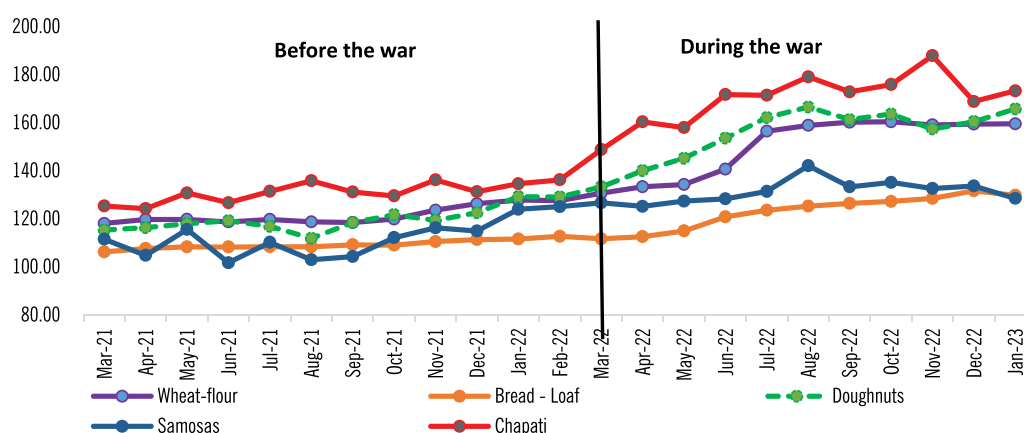
5.2.3.2: Wheat imports and prices

Wheat is a critical intermediate input in the manufacture of bread, biscuits and related products, consumed by both urban and rural dwellers in Uganda, although little grown in the country. Domestic consumption of wheat has increased overtime from 131,000 metric tonnes in 2010

Figure 38: Changes in the international and domestic price for wheat (March 2021-October 2022)

Source: ITC Trademap (2023) and UBoS (2023)

Figure 39: Consumer Price Index (CPI) for selected wheat and related products



Source: Author's computation using CPI from UBOS (2023).

to over 560,000 metric tonnes in 2020, but more than 96 percent is imported (Figure 38).

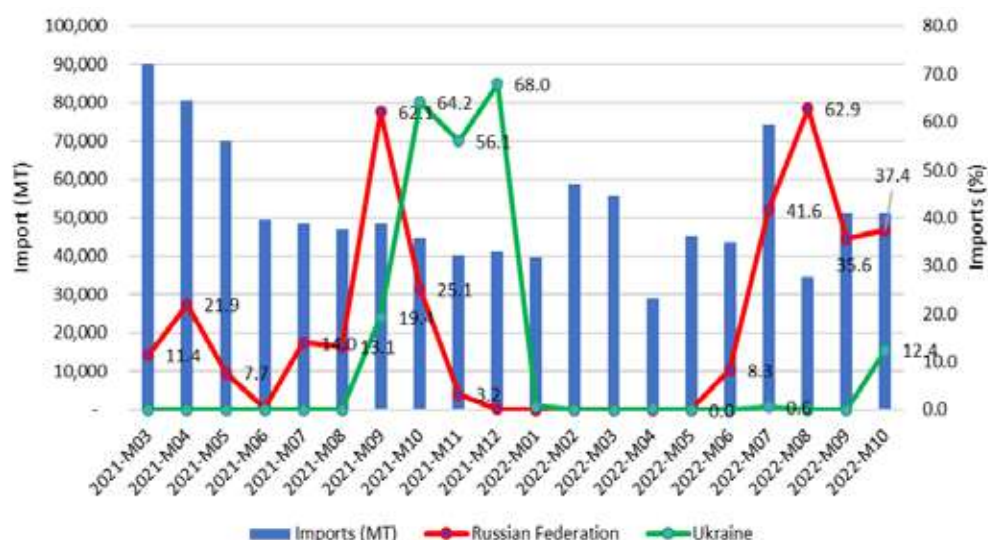
Prior to the outbreak of war in 2021, over 22 percent and 17 percent of Uganda's total wheat imports (671,859 tonnes) came from Russia and Ukraine, respectively (Figure 38). The Russia-Ukraine war changed the volume of wheat imports into Uganda as evidence in Figure 40; with imports from Ukraine significantly declining from USD 10 million in December 2021 to zero in January 2022, before recovering to USD 2 million in September 2022. While for Russia there were no wheat imports between December 2021 and May 2022, and imports rebounded to

USD 11 million by July 2022 only to drop afterwards.

This meant that shocks from the Russia-Ukraine war was bound to have severe negative impacts on the country's wheat supplies and price. Between March 2022 and September 2022, international prices for wheat increased by 25 percent from USD 36 per tonne in March 2022 to around USD 45 per tonne in August 2022 (Figure 38). These rises were transmitted to the domestic market, with local wheat prices jumping in response.

The upward trend in domestic wheat prices has had a negative impact on consumers of wheat-related products,

Figure 40: Uganda's wheat imports from Russia and Ukraine (March 2021-October 2022)



Source: Author's computation using data from ITC/Trademap, 2022

reflected in increase in the amounts consumers must pay as measured by the Consumer Price Index (Figure 39). Between March 2022 and February 2023, the CPI for wheat flour increased by 22 percent, while the CPI for chapattis, one of the local wheat flour products, increased by 16 percent. Ugandans who spend significant incomes on food consequently paid dearly for wheat-derived products.

To curb shortage and dampen rising wheat prices, Government advised farmers to seize the opportunity and plant more cassava to replace wheat used for making pastries and chapattis. For industrial production, however, the alternatives may not be easy to acquire or use as wheat substitutes in the short-term. For example, non-wheat grains used in bread making that are gluten-free can present technical challenges because they lack the viscoelastic properties necessary to make high-quality bread.

5.2.4: Policy Considerations

Uganda's wheat and fertiliser markets continue to be disrupted in terms of import volumes and prices and due to the global effects of the Russia-Ukraine war. Unless the conflict ends, domestic wheat and fertiliser prices continue to be high due to supply side disruptions and the risks. High fertiliser prices, in particular, is affecting both small and large farmers in the country. It is critical therefore that the Government considers implementing the policy actions outlined below to mitigate the effects of current and future global crises on Uganda's wheat and fertiliser availability and use by farmers.

First, the Government should revisit its plan of revamping the Tororo fertiliser factory, envisioned in the Uganda Fertiliser Policy of 2016, to locally produce fertilisers as part of its import replacement drive spelt out under the NDP III. This will ease fertiliser availability and reduce prices with huge benefits to the country's agriculture and farmers.

Second, Government should consider leveraging public-private partnerships and introduce bulky procurement of both wheat and fertilisers; such that even if the country is hit by a crisis, it would still have reserves to meet short-term demands as alternatives are sought.

Finally, as a complimentary action, there is need to design and operationalise the national food reserve system as a mechanism to stabilise Uganda's food supply and prices, and to ensure domestic food availability and affordability. This should be concurrently implemented with efforts aimed at boosting local wheat and other staple food production and enhanced productivity to assure stable supplies. With Uganda's natural potential and current commitment to agricultural development and transformation, its indeed possible to quickly implement and achieve these recommendations.

References

- Ben Hassen, T., and El Bilali, H. (2022). Impacts of the Russia-Ukraine war on global food security: towards more sustainable and resilient food systems? *Foods*. 11(15), 2301.
- Chadza, W., William J. Burke, J.W., Jayne, S.T & Muyanga, M. (2022). How Russia's Invasion of Ukraine Will Affect the Food Security Situation in Malawi: Implications for Malawian Policy Response. Mwapata Institute, Policy Brief No. 18, March, 2022. Accessed at <https://www.mwapata.mw/files/ugd/dd6c2fa93e1dba50ef4e7280ee0998d77af9b0.pdf?Index=true>
- Diao, X., Dorosh, P., Ellis, M., Pauw, KJenny S. and Thurlow, J. (2022). Uganda: Impacts of the Ukraine and Global Crises on Poverty and Food Security. Country Brief 12. Produced by International Food Policy Research Institute, Washington, DC in July, (2022). <https://doi.org/10.2499/p15738coll2.135952>
- FAO, (2022), The importance of Ukraine and the Russian Federation for global agricultural: 10 June 2022. Update. [http://file://main.oecd.org/Homedir2/FrezalC/Agricultural%20Outlook%202022/FAO%](http://file://main.oecd.org/Homedir2/FrezalC/Agricultural%20Outlook%202022/FAO%20)

[20brief%20June.pdf](#)

[Guthiga, P. \(2023\)](#). The Russia-Ukraine conflict: Impacts on commodity markets in Uganda. Akademiya 2063, Ukraine Crisis Brief Series, No. 19, Kigali, Rwanda

[Nhemachena, C. S., Dahiya, S., Gokah, I., Echessah, P., Gichuri, M., Nhlengethwa, S., Djido, A. and Muthini, D. \(2022\)](#). Russia-Ukraine conflict: Implications of disruptions in global supply chains for food in Africa. AGRA Policy Brief, No. A01

[UBoS, \(2021\)](#). Uganda National Household Survey 2019/2020 Kampala, Uganda; UBoS

[UBoS, 2020](#). Uganda Annual Agricultural Survey 2018. Kampala, Uganda; UBoS

[World Bank, \(2018\)](#). Closing the Potential-Performance Divide in Ugandan Agriculture. Washington DC, World Bank

5.3 DE-RISKING UGANDA'S AGRO-MANUFACTURING SUBSECTOR: EXPERIENCES FROM UGANDA DEVELOPMENT CORPORATION

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5.3.1: Background

Promoting industrialisation is one of the key strategies of the Government of Uganda for ensuring social economic transformation as stipulated in the Uganda Vision 2040 that is operationalised through the National Development Plans (NDPs). The current third NDP III (2020/21 – 2024/25) aims to increase value addition in the key growth opportunities of agriculture, industry, knowledge and Information Communication Technologies (ICT), tourism, minerals, and Oil and Gas (NPA, 2020). In regards to the agriculture sector, agro-manufacturing remains very limited with Uganda's share of the globally traded agro-industrial products being only about 0.17 percent (NPA, 2020), despite the country having one of the best agricultural potentials in East Africa and the sector employing over 68 percent of the country's labour force (UBOS, 2021).

One of the key challenges limiting growth of agro-manufacturing and the entire industry sector in Uganda is the high cost of financing; the others are high costs of industrial infrastructure; limited availability of technical and managerial skills; limited industrial research, innovation and technology transfer; heavy reliance on imported inputs; high energy tariffs; and low capitalisation of the Uganda Development Corporation (UDC), which is the industrial investment arm of Government (MTIC, 2020).

With specific regard to the financing challenge, credit that is usually available to the private sector is characterised by high interest rates, high collateral requirements and short-term in nature. The short-term credit for business development are largely only available from commercial banks who lend at high annual rates of 20 percent or more. This high cost of finance often makes it difficult for the private sector to properly invest in and sustainably operate and manage strategic agro-industries some of which even depend on highly seasonal agro-produce as primary raw materials.

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Through its investment arm the UDC that was recently re-established by the UDC Act 2016, Government is obligated to play a critical role in financing the agro-manufacturing sub-sector, as well as other sub-sectors in industry and manufacturing. However, the Corporation has equally been facing financing challenges. The UDC is currently funded through appropriations by Parliament under the Budget line of the Ministry of Trade, Industry and Cooperatives (MTIC). The Budget allocation to UDC has also remained low, and most of the funds (about 66%) have only been received in the recent past (from FY 2019/20 to FY 2021/22). Besides, while the Corporation is expected to complement Government funding with its own funds internally generated from subsidiary and associated companies, these subsidiary investments are still at infancy stages with little financial returns.

The UDC's financing challenges notwithstanding, the Corporation has, through equity, shareholder loans and leasing, invested in some agro-industries and have saved a number of factories from foreclosure arising from heavy indebtedness and lack of working capital. We review in this article the financing modalities and the challenges the Corporation has been facing that must be overcome. And to illustrate UDC's role in promoting industrialisation in the country, we also present two agro-industrial case studies that demonstrate the effectiveness of Government intervention in reviving and sustaining industries that are strategic to the social and economic transformation of Uganda.

5.3.2: Understanding the UDC's Financing Modalities

In developed and developing countries, public corporations have for long been used by governments as drivers of research and innovations, promoters of industrial development, creators of employment opportunities, and promoters of social and economic growth. In Uganda, and specifically within industry as a sector, the use of public corporations commenced with the establishment of the Uganda Development Corporation (UDC) in 1952, and had

great effects in promoting growth of manufacturing and agro-industries until chaos befell the country following the military coup by Idi Amin in 1971. Similar to that old UDC, the mandate of the revived UDC (2016) is to facilitate the country's industrial and economic development³. Aspects of the UDC framework and mandate are reviewed below.

5.3.2.1: UDC's financing arrangements

In its industrial development support, the UDC uses three financing arrangements, namely equity financing, lease financing and shareholder loan financing. Through equity financing, the Corporation acquires stake in a project or enterprise (associated entity) by taking up more than 50 percent or less of shareholding in a subsidised (Subsidiary) entity. Under lease financing arrangement, UDC (the lessor) establishes a turn-key agro-industry and hands it over to a private company (the lessee) who operates and manages it, while UDC remains the legal owner of the establishment (assets) for the duration of the lease. UDC then recovers the cost of the asset invested through receipt of rental payments made by the lessee until such a time when the last rental has been cleared. On the other hand, shareholder loans are basically debts that UDC extends to investee companies where the Corporation owns some shares.

With funding from Government, the UDC pursues its mandate through establishment of subsidiary and associated companies in areas that are strategic for social and economic transformation. The Corporation prioritises projects that the private sector is either unable or unwilling to execute for reasons that include: heavy capital requirement; low or slow returns; and where goods and services to be produced are of a public nature. In this regard, UDC plays a catalytic role and de-risks private investments in agro-manufacturing and other key industries.

In line with the agro-industrialisation agenda of Government, UDC has so far invested in at least nine (9) agro-industries in five (5) sub-sectors, namely fruits, tea, cassava, cotton and sugarcane. Equity financing is the

dominant financing type being used by UDC; and three out of the six companies where UDC is an equity shareholder have received shareholder loans. Lease financing is not commonly used and has been extended to only two (2) agro-industries in the tea sub-sector.

The financing models being used by UDC offer several benefits listed below.

a) Patient capital. With this, UDC makes financial investments in businesses with no expectation of earning quick profits; and will forgo immediate returns provided the expected future returns from the investment makes business sense, and the investment offers benefits to communities such as employment and ready market for locally produced agricultural raw materials. As an equity shareholder, the Corporation will not demand for dividends until the subsidiary or associated company is able to generate sufficient net profits.

b) De-risking. Some UDC investee companies have such poor credit ratings that prevent commercial banks from lending to them the much-needed funds to keep the businesses afloat (see **5.3 C**). Infusion of equity share capital by UDC into such an investee company improves the credit worthiness of previously heavily indebted agro-industrial concern. The reason as to why UDC invests in such struggling companies is that UDC is a public corporation mandated to promote and facilitate industrial development for social and economic transformation. As such it is not driven by financial benefits alone but considers the potential social impact of investments on the people, environment and society as a whole.

c) No collateral requirement. UDC shareholder loans and finance leases do not attract collateral, and the cost of debt is also purposefully much lower than what commercial banks charge. In the case of finance lease, the assets purchased by the lessor (UDC) serve as collateral for the company into which UDC has invested (lessee).

d) Relaxation of cash constraint for high capital

investments. Through the finance lease, UDC procures and installs factory machinery and auxiliary equipment, thus enabling private sector players to start commercial operations without incurring heavy initial cash outlays that would ordinarily be required at the outset of the project. UDC finance lease fills funding gaps thereby shortening the turnaround time for commencement of commercial operations.

e) Good governance. In all business where UDC is an equity shareholder, select UDC staff get involved in the management and operations of investment entities through active representation on the Boards of the investments. This has enabled investments to overcome governance and management challenges that would otherwise negatively impact financial performance.

f) Exit strategy and no threat of company capture. Participation of UDC in nascent or struggling companies is support and build. The long-term goal is, therefore, eventual divestiture to the private sector of its interests in mature and ready-to-go industries. Thus, the UDC will exit an investment once the equity investment objectives have been attained, which is its primary purpose, or the financial considerations no longer justify continuity in the investment.

5.3.2.2: Eligibility criteria for accessing financing from UDC

The cardinal framework that governs the existence, purpose and operations of the UDC is the UDC Act of 2016, under which provision UDC is mandated to support with funds companies in under set criteria. Using its Project Appraisal and Investment Manual (2022), UDC will select from amongst applicants investments to be supported. For a company to access funding from UDC, it must meet at least one of the following eligibility criteria:

- (i) Start-up (greenfield) and partly developed projects (brownfields) in agro-processing, mineral beneficiation and services sectors.
- (ii) Projects falling within the priority growth sectors of Uganda's economy.

- (iii) Abandoned projects that have a projected social economic impact.
- (iv) Projects being promoted by investors or companies that are a legal entity and registered under the laws of Uganda. The owners must demonstrate that they are unable to finance, manage, and/or implement new major investments in line with the UDC mandate.
- (v) Private-owned projects where the public sector is to participate in a de-risking capacity.
- (vi) Projects with credible evidence demonstrating financial and economic viability.
- (vii) Projects with proven potential to use local raw materials and local labour force as major inputs.
- (viii) Projects with credible evidence demonstrated alignment with the environmental standards and regulatory frameworks of Uganda.
- (ix) Projects with a minimum investment cost of UGX 2 billion. And,
- (x) Projects whose promoters have sufficient evidence indicating that the promoter can afford to cover at least 20 percent of the total project financing requirement.

By applying this approach to company selection, priorities are upheld, biases are eliminated, commitments are entrenched and the best interest of the country and the people are upheld.

5.3.3: UDC Tea Sector Interventions: Case Studies of Mpanga and Mabale Growers Tea Factories

Tea is one of ten (10) priority commodities that Government selected to support to foster Uganda's agro-industrialisation agenda (NPA, 2020)⁴. As such, tea companies in need, in this case Mpanga and Mabale Growers Tea Factories, fit the intervention purpose for which UDC was relaunched by Government. First, the two factories were fully owned by local tea farmers, off-took farmers' produce (green leaf) providing markets for tea farmers, and they also created both direct and indirect

job opportunities for factory workers and transporters and stimulated local economic activities. Second, the selected two tea companies were at the verge of collapsing, yet they provided ready market for green leaf produced by farmers in Toro sub-Region and were good examples of local agro-industrial initiatives for the country.

Because the two factories met most of the eligibility criteria set for UDC intervention, they benefitted from Government intervention through UDC that focused on the challenges they were facing and they receive funding from UDC. On the coming on board of UDC, the ownership structure of the two tea factories changed, with some shares for each factory being relinquished to UDC. Review below of the UDC intervention to infuse funds and steady the Mabale and Mpanga Tea Estates aptly illustrate the purpose and role for which Government revived the UDC.

5.3.3.1 The Mabale and Mpanga Tea estates before UDC's intervention

Mabale Growers Tea Factory. At the time Mabale Tea Factory sought intervention of UDC, the company was under serious distress, and foreclosure was imminent with an advert already run in newspapers in January 2020. The factory was being stripped of its assets (including tea estates) by creditors; most staff had quit and those left were demoralized due to non-payment; available factory structures, equipment and machinery were in disrepair; and the quality of made tea was so poor that in the Mombasa tea auction, the company could not easily sell its tea which fetched low prices.

Mpanga Growers Tea Factory. For Mpanga Tea Factory, by 2020 the company had a high debt burden which had become difficult to service because of poor financial decisions and mismanagement, and had inadequate working capital needed to procure green tea leaf and was operating below the installed capacity. The limited working capital, coupled with price volatility at the Mombasa Auction in 2019, made the company return heavy losses to the extent that it was at the verge of collapse.

Table 27: Performance of Mpanga Growers Tea factory after UDC's intervention

Parameter	Unit	Before UDC intervention (as at August 2021)	After UDC intervention (as at November 2022)	Change (%)
Average daily green tea leaf intake	Kg/day	13,141	40,022	204.6
Monthly volume of made tea sales	Kg/month	87,903	156,362	77.9
Average selling price of primary grades of made tea	UGX	3,023	4,206	39.1
Labour use efficiency [volume of made tea (kg) per man day]	kg/man day	49	102	108.2
Installed capacity utilisation	%	27	97.8	70.8
Job creation (factory direct employees)	persons	154	345	124

Source: Status Update Report presented by the Mpanga General Manager to UDC in November 2022

The financial challenges and high debt levels faced by the two factories were largely due to bad governance and misalignment between financing needs and financing strategies taken at that time. At one of the factories, for example, Management approved a short-term credit for long-term investment that remained idle while interest on funds borrowed from commercial banks was accumulating. In the circumstances described above, the immediate need for Mabale tea factory was to forestall the foreclosure and negotiate with the major lender (commercial bank) for loan restructuring; while for Mpanga it was dire need for recapitalisation and restructuring of the loan obligations.

The decision taken by UDC for both tea factories to finance them through equity participation and later shareholder loans. The initial UDC intervention in Mabale was in 2020, while in Mpanga it was October 2021. Apart from the financial support provided to the two tea companies, UDC as an equity shareholder intervened by taking up Director positions on the Company Boards with authority to ensure proper governance and financial management.

5.3.3.2: The changes attributed to UDC's intervention

Following the UDC interventions, the foreclosure of Mabale was forestalled, and the two factories were revitalized. Mabale made improvements in the quality of made tea and its packaging and was able to realize increasing prices

of tea sold at the Mombasa tea auction. Other significant impacts of the UDC intervention are summarised in Table 27 for Mpanga and Table 28 for Mabale.

For Mpanga factory, the average daily green leaf intake increased by over 204 percent leading to increased utilisation of installed capacity from 27 to 97.8 percent. Also, the volume of made tea sales increased by close to 80 percent; the average selling price of primary grades of made tea increased by 39 percent; labour use efficiency improved from 49 to 102 kg of made tea per man day; and the number of factory employees increased from 154 to 345, hence contributing to reduction in unemployment.

For Mabale, the volume of made tea sold annually by this factory similarly increased by about 67 percent; the selling price too increased from 0.7 USD/kg in 2019 to 1.07 USD/kg in 2022; and there was remarkable improvement in efficiency in production of made tea, with cost of producing made tea declining from 1.66 USD/kg to 1.05 USD/kg (Table 28). These positive changes greatly improved the profitability of the two companies; saved the factories from collapse; and restored their roles in stimulating tea production in their areas and promoting the economic wellbeing of the people.

Table 28: Performance of Mabale Growers Tea factory after UDC's intervention

Parameter	Unit	2019 (A)	2020	2021	2022 (Oct- Nov) (B)	% change (B-A)
Annual volume of made tea	Kg	855,065	1,558,337	2,614,975	1,426,355	66.8
Annual average sales price	USD/kg	0.70	0.90	0.92	1.07	52.9
Annual average selling and distribution costs	USD/kg	0.13	0.13	0.11	0.09	(30.8)
Total cost of production	USD/kg	1.66	1.19	0.99	1.05	(36.7)

Source: Status Update Report presented by the Mabale General Manager to UDC in November 2022

It should be noted that the recovery period for the two factories after the intervention by UDC was reasonably short because recapitalisation enabled partial but significant settlement of loan obligations and solved the challenge of limited working capital. Recapitalisation facilitated major factory infrastructure repairs and developments, and purchase of green leaf to improve factory capacity utilisation and efficiency in the production of made tea. In addition, the faith of farmers in the two factories, who also double as shareholders at the factories, were restored and they resumed consistently supplying green leaf to the factories that many had abandoned because of delayed payments and arrears. Factory employees also became very motivated following remarkable reduction in salary arrears that had accumulated over nearly one year, leading to labour use efficiency reflected in the volume of made tea per man day (Table 27).

5.3.4: Challenges of Intervention Encountered by UDC, Lessons Learnt and Ways Forward

In implementing their mandate role of supporting agro-industrialisation in Uganda, the UDC has had diverse exposure, faced challenges and accumulated lessons to guide it going forward.

The key challenges are particularly associated with the modes of financing, some of which are summarised below.

a) Slow positive returns. Concerns invested in

take long to breakeven and therefore do not yield positive returns to UDC in the time set based on cash flow projections that partly informed the investment decision. This means funds remain tied up in agribusinesses and cannot be recouped in time to be invested in other projects that equally require financing.

b) Limited facilitation of investee companies.

Some of the investee companies were in deep financial distress and yet, due to limited capitalisation of UDC, the levels of support to the investments were inadequate. Funding from UDC usually only eases financial distress while the investee companies remain overleveraged, such that any shock that affects their expected revenues (e.g. low and volatile prices of made tea in the case of tea factories) pulls them back into financial distress and potential risk of foreclosure. It is in this spirit that UDC has taken steps to borrow (through GoU) under highly concessional terms to strengthen its capacity to more effectively promote and facilitate investments in agro-industrial development.

c) Government as an equity shareholder is not prioritised in repayment of shareholder loans.

The huge debt burden that some UDC funded agro-industries carry does not allow them to prioritise shareholder loans provided by UDC. Rescheduling of loans become unavoidable when investee companies have huge non-performing loans with other financial institutions. The Corporation is continually intervening in the operations and management of business entities to ensure they

sustainably generate sufficient profits to enable them clear all outstanding loan obligations, and begin to pay dividends to UDC as a shareholder.

d) Wrong mindset that “Government money is free money”. Contrary to the UDC loan terms and conditions, some investee companies that receive shareholder loans have the wrong perception that the company will not be required to pay back. Thus, UDC has to regularly engage with the Boards and management of such companies to assure them that Government interest in the investment must be realized and refunded.

From the experience gained by UDC while investing in various agro-manufacturing industries, the following key lessons have been learnt:

- a) One-off financing is sometimes not enough to help businesses fully recovery especially if, at the time of intervention, they were highly leveraged. Follow up alternative financing options like shareholder loans become inevitable and should be embedded in intervention strategies.
- b) Considering lease financing, UDC should be effectively represented on the investee company Boards to take care of the Corporation’s interest and ensure timely payment of rental obligations.
- c) Financing such as UDC provides needs to be accompanied with comprehensive development package for investee companies. These should include strategies for strengthening company governance; provisioning of input subsidies to ensure sustained supply of high-quality raw materials; lowering cost of doing business, including reducing costs/tariffs of critical inputs such as electricity to enable companies to minimise production cost and hence generate sufficient divisible profits after settlement of loans and other obligations.

Ministry of Trade, Industry and Cooperatives. Accessed at <https://www.mtic.go.ug/downloads/NPA>, (2020). Third National Development Plan (NDPIII) 2020/21-2024/25. Kampala, Uganda: National Planning Authority. Accessed at <http://www.npa.go.ug/publications/>

UBOS, (2020). 2020 Statistical Abstract. Kampala, Uganda: Uganda Bureau of Statistics. Accessed at <https://www.ubos.org/>

UBOS, (2021). 2021 Statistical Abstract. Kampala: Uganda Bureau of Statistics. Accessed at <https://www.ubos.org/>

Endnotes

- 3 After its’ incorporation in 1952, the first two decades of UDC’s existence witnessed a very sound establishment of industrial and commercial base in the country. The establishments were profitably operated and registered various development outcomes including increased exports, employment opportunities for the people of Uganda and increased tax revenue. However, starting in the early 1970s, UDC’s glory days were rudely interrupted by political unrest and economic depression leading to the winding up of the Corporation by the Public Enterprise Reform and Divestiture Act, Cap 98 section 35(1) in 1998. The present UDC was revived by the UDC Act 2016 which came into effect on 1st June 2016.
- 4 Government selected ten (10) commodities to drive sustainable agro-industrialisation. They are coffee, tea, cotton, cocoa, cassava, maize, vegetable oil, fisheries, beef and dairy.

References

MTIC, (2020). National Industrial Policy. Kampala, Uganda:

5.4 MONITORING RESPONSIBLE AGRICULTURAL INVESTMENT ON LAND IN UGANDA: THE CASE OF GIZ'S INVESTMENT COMPLIANCE AND MONITORING TOOL

Anna Karolina Lamik¹, Christina Ketter², Kirumira Daniel³, Katende Richard⁴



5.4.1: Introduction

In 2015, the UN Sustainable Development Goal (SDG) Target 2.1 challenged the world to end hunger by ensuring access for all to safe, nutritious, and sufficient food all year round by 2023. The African Union (AU) Agenda 2063 similarly identifies the need to feed Africa and to improve the welfare for the people of Africa among the five operational priority areas⁵, noting the substantial role of agriculture in African economies as employing 65 percent of the continent's active population. Even then, the projections now are that by 2030 nearly 670 million people will still be facing hunger (FAO, 2022). This grave reality is not helped by the fact that commercial investments⁶ in agriculture and forestry are increasingly exerting pressure on land as a resource.

A 2013 study by the then African Union based Land Policy Initiative (LPI) revealed that such investments in land for agriculture can lead to loss of access to land by local communities, conflicts, inadequate compensation during resettlement and forced evictions, thereby restricting and preventing inclusive and sustainable development⁷ pathways. Although the Uganda National Land Policy 2013 singles out the growth in foreign direct investments (FDIs) as responsible for such negative outcomes, the international frameworks deem it imperative that all investments in land- foreign, domestic, large, and small- be guided to ensure they are responsible⁸ in the context of national food security. The Uganda Ministry of Local Government (MoGLSD) observes that violation and abuses of citizens' rights in business processes have resulted into conflicts between communities and the businesses, involuntary displacements, loss of livelihoods and property, land increased social tensions and conflicts (MoGLSD, 2021).

While Uganda has undertaken various commitments⁹ to ensure sound land governance, there exists persistent

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challenges regarding its implementation that continue to undermine the significant contribution of smallholder farmers to national food security. With 68.9 percent of the Ugandan population still stuck in the subsistence economy (NPA, 2020), the country's Vision 2040 targets to reduce the proportion of the population living below the poverty line from 21.4 percent in FY2017/18 to 5 percent. Over 60 percent of Uganda's labour force is employed within the agricultural sector¹⁰. The Food and Agriculture Organisation (FAO) of the UN estimates that the need for more food, feed and biofuel will be 50 percent higher by 2050 compared to what was produced in 2012. Hence, the need for more investments on land. Yet, not all investments are equally beneficial as some have adverse impacts such as higher food insecurity, environmental damage and deforestation that contribute to Climate Change and violation of human rights. For investment in agriculture and food systems to generate good outcomes for all stakeholders, it is critical that the investment is responsible¹¹. This article outlines the approach GIZ has undertaken to monitor responsible investments in Uganda. Specifically, it discusses the monitoring and compliance tool and findings from the monitoring exercise, and highlights agri-business investment capacity enhancement interventions to improve compliance levels.

5.4.2: Monitoring for Responsible Investments in Land in Uganda

Compliance monitoring of domestic agribusiness investments was initiated by the Promoting Responsible Governance of Investments in Land (RGIL) Project, co-funded by the European Union, which is part of the *Deutsche Gesellschaft für Internationale Zusammenarbeit* (GIZ) Global Programme "Responsible Land Policy" implemented in Uganda¹² through the country project "Responsible Land Policy in Uganda" (RELAPU). Both are part of the Special "One World, No Hunger" initiative of the German Federal Ministry of Economic Cooperation and Development (BMZ). RELAPU has worked with private domestic agriculture investors since 2017, with the goal to raise their awareness about responsible

land policies along internationally agreed guidelines, and in conformity with national policy and legal frameworks, namely the National Land Policy (NLP, 2013), Environment Act 2019, Investment Code Act, Land Act, Labour Act and the Community Engagement Guidelines (Thorsten *et al.*, 2020).

Currently, Uganda has no systems to collect information on compliance of agricultural investments to the established standards, and this project is intended to help build this capacity. RGIL monitors compliance through indicators on food security and nutrition; sustainable and inclusive economic development and the eradication of poverty; foster gender equality and women's empowerment; youth engagement and empowerment; tenure of land, fisheries and forests and access to water; managing natural resources to increase resilience, and reduce disaster risks; and cultural heritage and traditional knowledge among other indicators. These are composite indicators that form the overall indicator on the compliance levels, measured through an overall percentage and the specific percentages for the sub criteria. RGIL builds on these experiences and scales them up through supporting Government, domestic agricultural investment and local community capacity building for responsible investments in land.

The RGIL project has additionally supported an assessment of the policy and legal frameworks applicable for responsible investments in land against the international guidelines. The findings reveal that the Voluntary Guidelines on the Responsible Governance of Tenure of Land, Fisheries and Forests in the context of National Food Security (VGGTs) and Committee for World Food Security Principles for Responsible Investment in Agriculture and Food Systems (CFS-RAI principles) are post-2010 documents which are relatively recent compared to the Land Act (1998) and National Environment Management Policy (1995). As such, it is important to re-align the NLP as well as other related policy, legal and institutional frameworks to these voluntary guidelines.

The VGGTs and CFS-RAIs are valuable benchmarks against which the national safeguard measures¹³ can be assessed through categorising the relevant policy and legal instruments by subject matter, such as food security, land tenure, non-discrimination and empowerment of women and youth, labour, environmental protection (GIZ, 2022). This ensures that gaps in the frameworks are not exploited to perpetuate non-compliant practices that affect local community rights such as the eviction of tenants in Nalutuntu subcounty, Kassanda District¹⁴ and Kiryandongo District¹⁵ to pave way for sugarcane growing (Daily Monitor, 2021; New Vision, 2020). It is noted that while the National Environment Act 2019 is new and progressive, the thresholds required for social impact assessments need to be revisited to accommodate investments by small holders.

With respect to the amended investment law 2019 and policy, it is evident that it was amended with little regard to the guidelines entailed in the VGGTs and CFS-RAIs¹⁶. Considering the varied national legal framework and institutional mandates, the international guidelines offer consolidated principles against which investments in land, including domestic agriculture investments, can be guided, monitored, regulated and perhaps certified. For fair outcome, it is pertinent that the review team is representative of various stakeholders, namely relevant sectoral Ministries- Lands and Environment, Gender and Social Development, Justice and Constitutional Affairs and Local Government; Agencies- National Environment Management Authority, Uganda Investment Authority, National Forestry Authority; and Civil Society Organisations as well as the private sector actors, especially those involved in food production, processing, storage and marketing.

5.4.3: The Investment Compliance Tool and Monitoring Approach

The Investment Compliance Tool is a practical tool for measuring performance compliance on the principles for responsible investment in agriculture and food systems.

It is composed of guided questions with different rating scales; for example, whether the investor has put in place systems to produce food that is safe and healthy. The Tool enables use by different stakeholders manually as well as digitally as Word or Excel document or as Online Survey (e.g. KoBo Collect) on either laptops, smartphones, tablets or as printed hardcopy to be moved with to the investment site. The Tool is used as a qualitative survey with the investor, documenting the investor's self-reported assessment of the investment. After completion of the survey (app. 60 min.), a site visit can be conducted to jointly verify some of the statements made by the investor.

The tool, developed under the RGIL project component, provides an opportunity for government representatives, regulatory authorities, investors, land users, as well as civil society (CSO) partners active in agriculture investments in land to measure and assess compliance for responsible investments based on the CFS-RAI principles. The Tool was developed Mid 2021 by the RGIL project in Uganda with inputs from various stakeholders and land actors. The Tool was validated by representatives from Ministry of Land, Housing and Urban Development (MLHUD), Uganda Investment Authority (UIA), Representatives from District Local Governments (DLG) from Central and North-eastern¹⁷ Uganda, and Civil Society Organisation (CSO) partners, including Eastern and Southern Africa Small-scale Farmers' Forum (ESAFF), the Land and Equity Movement in Uganda (LEMU), Soroti Catholic Diocese Integrated Development Organisation (SOCADIDO) and Participatory Ecological Land Use Management (PELUM) Uganda, following a process that entailed the customisation of the international guidelines to the national context to ease use of the Tool for the assessment of domestic investments in land.

The non-binding¹⁸ CFS-RAI principles formed the main guiding document for the Investment Compliance Monitoring Tool (ICMT)¹⁹. The ten principles (Box 3 below), whose objective is "to promote responsible investment in agriculture and food systems that contribute to food security and nutrition, were compressed into seven

sections (see Appendix); clustering principles one and eight, three and four, as well as nine and ten, with sub-criteria to guide the periodic assessment of agri-business investor compliance levels.

Box 3: CFS-RAI principles

Principle 1: Contribute to food security and nutrition

Principle 2: Contribute to sustainable and inclusive economic development and the eradication of poverty

Principle 3: Foster gender equality and women's empowerment

Principle 4: Engage and empower youth

Principle 5: Respect tenure of land, fisheries, and forests, and access to water

Principle 6: Conserve and sustainably manage natural resources, increase resilience, and reduce disaster risks

Principle 7: Respect cultural heritage and traditional knowledge, and support diversity and innovation

Principle 8: Promote safe and healthy agriculture and food systems

Principle 9: Incorporate inclusive and transparent governance structures, processes, and grievance mechanisms

Principle 10: Assess and address impacts and promote accountability

The results of the investment compliance assessment are subjected to review by the investors for the identification of capacity gaps that result into low compliance. Investment compliance monitoring is done as part of the RGIL project monitoring activities and more specifically to inform the investor capacity enhancement measures. Areas of low compliance are targeted with capacity building trainings, workshops and field advisory visits. Such capacity enhancement activities have formed the basis for the discussion and development of compliance improvement measures applicable to individual investments.

The first batch of assessments were undertaken between July and September 2021, for a total of 51 agriculture investments in Mubende, Kassanda, Mityana, Soroti, Katakwi, Dokolo and Amolatar Districts. Similarly, RGIL

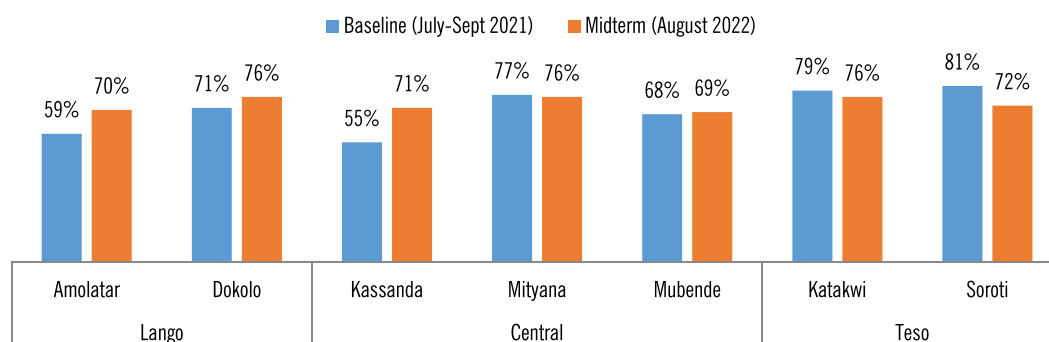
conducted a second batch of compliance assessments for the initial 51 investments and an additional 25 investments in agriculture that were included later on as part of efforts to reach more domestic agriculture investments, mainly animal, crop and mixed farms in the supported areas. A total of 76 investments were assessed, with 51 of them assessed both at baseline and midterm while the additional 25 were only assessed at midterm.

5.4.4 : Uganda's Progress with Responsible Investor Compliance in Agriculture

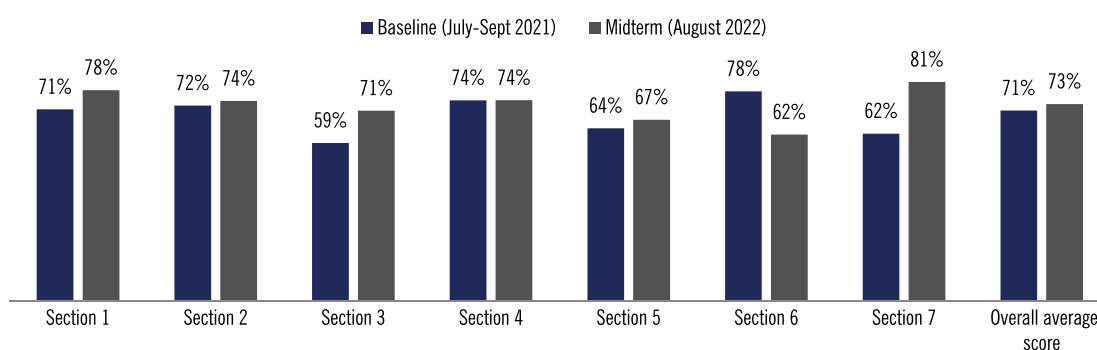
The investment compliance tool is structured in a way that it can be used as a guide to award scores per section and sub-section of the tool. The scores are further weighted so that each section contributes a proportion given according to its prioritisation to overall assessment. The tool also contains criteria to guide the awarding so as to reduce bias by assessors. In addition, a comment section is available to provide justification or explanation behind the scores awarded. The scores are analysed to establish the overall score per investor for the 7 sections.

Considering investment compliance assessments by district (Figure 41), overall, a total of 34 out of the 76 investors (8 females and 26 male) assessed were able to score above 70 percent in the compliance assessment. This increased from 29 at baseline. Considering section 4 of the compliance assessment which focuses on compliance to the principles laid out in the national and international guidelines, a total of 38 (6 females and 32 males) out of the 76 investments assessed scored above 70 percent. This improved from 32 investments at baseline measured between July and October 2021.

In a bid to understand the specific areas that depict the weaknesses of the investment, a comparison of the results was done on the section on specific compliance performance of the investors for the 7 sections that make up the tool (see Annex Box 1). While the results (Figure 42) show improvements in sections 1, 2, 3, 5, and 7

Figure 41: A comparison of the baseline and midterm Investment compliance levels by district

Source: Author's construction

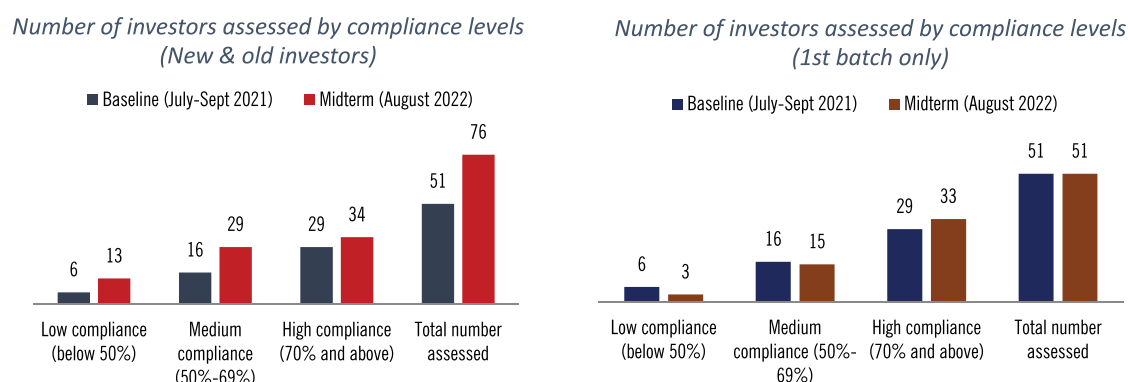
Figure 42: A comparison of average compliance scores per section

Source: Author's construction

from baseline to midterm, section 4 shows stagnation and there is a decline in section 6. This implies that more efforts are needed, in terms of support to investor capacity enhancement, to improve performances in the specific sections.

Comparison of district specific results (Figure 41) show improvements in the average compliance results from the district of Mubende, Kassanda, Mityana, Dokolo and Amolatar districts. There was a decline in Katakwi and Soroti districts, while the biggest positive change was observed in Amolatar and Kassanda districts. While the changes seem minor, they are still considered significant considering the time in-between the assessments and when interventions such as training and sensitisation happened. It is an indication that, with time, more changes are likely to happen and bigger strides will be made. Considering compliance levels for domestic agriculture investors, the comparisons were done for the first batch of

investments assessed at baseline and how they performed at midterm. Another comparison was undertaken including investors that were newly added by August 2022 when the second assessment was conducted. Considering the first batch of investors who were assessed and later on sensitised and trained as part of RGIL project activities, results of compliance assessments (Figure 43) show that there was a reduction in the number of investors within the low compliance bracket (below 50 percent), from 6 to 3. Those in the medium compliance bracket (between 50 percent and 69 percent) also reduced from 16 to 15, while those in the high compliance bracket (70 percent and above) increased from 29 to 33.

Figure 43: Comparative Analysis of Investment Compliance Assessment Results from 2021 and 2022

Source: Author's construction

The difference in the results that include investors added to the list in 2022 compared to those that were supported and assessed earlier can be attributed to the fact that RGIL, with the support of district local governments and other stakeholders, mainly added domestic agriculture investors who Subcounty authorities had identified as having grievances with neighbouring small-holder farmers. The grievances were related to access to land for farming, access to natural resources like spring wells, and access to community infrastructure, including village road access, among others.

5.4.5: Policy Options and Way Forward

The facilitation and promotion of agriculture investments in land, be it domestic or foreign investments, should move along guidance, monitoring and enforcement to guarantee protection of local community interests by relevant sectoral MDAs and local governments responsible for land, environment, labour and community rights. However, on the side of investors, the observance of safe-guard measures occasions higher operational costs which is reason for the lower inclination to comply. In this regard, mandated Government institutions should consider investment incentives like tax holidays, offer of serviced investment land, and reduced utility tariffs to encourage adherence to compliance measures.

While efforts for the consolidation of initiatives to support responsible investment capacity enhancement are

underway, ownership at national and local government level is still a work in progress. The integration of investor training, advisory, as well as compliance monitoring requires integration and mainstreaming into Government planning, budgeting and routine activity implementation at all levels. Secondly there needs to be clarity of roles and mandates of policy makers, namely MLHUD, NEMA, UIA, MAAIF, among others, and those responsible for implementation at local government levels, regarding the promotion and facilitation of responsible investments in land.

Lastly, investor capacity enhancement through training and advisory towards good practices for responsible investments is necessary. In this regard, the alignment of applicable national policy, legal, and institutional frameworks with the international and continental guidelines is paramount. While the voluntary guidelines are indispensable for investor capacity building, compliance towards responsible investments in land requires monitoring and enforcement in line with national regulatory frameworks.

References

- African Union, (2014). Guiding Principles on Large Scale Land Based Investments in Africa, pp. 2, Addis Ababa, Ethiopia. Accessed at <https://repository.uneca.org/rest/bitstreams/71064/retrieve>
- African Union, (2022). Development Agency - NEPAD,

- 2022 Second Continental Progress Report on the Implementation of Agenda 2063, pp. 2 African Union Development Agency - NEPAD, 2022 Johannesburg, South Africa. Accessed at <https://au.int/en/documents/20220210/second-continental-report-implementation-agenda-2063#:~:text=Second%20Continental%20Report%20on%20The%20Implementation%20of%20Agenda%202063,-Share%3A&text=Agenda%202063%20is%20Africa's%20development,five%20ten%20year%20implementation%20plans>.
- CFS, (2016). Recommending transparency in land-based investment: A summary of relevant guidelines and principles. Accessed at https://ccsi.columbia.edu/sites/default/files/content/docs/2016-03-11-Transparency-Guidelines_FINAL.pdf
- FAO, (2022)., The State of Food Security and Nutrition in the World: Repurposing Food and Agriculture Policies to Make Healthy Diets More Affordable, pp. xiv, Rome, Italy. Accessed at <https://www.fao.org/publications/sofi/2022/en/>
- FAO, (2016). Promoting responsible investment in Agriculture and Food systems: guide to assess national regulatory frameworks affecting large-scale private investments. Accessed at <https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/853712/>
- FAO, (2018). The principles for responsible investment in Agriculture and food systems. Accessed at <https://elearning.fao.org/course/view.php?id=380>
- FAO, (2022). The State of Food Security and Nutrition in the World 2022, pp. xvii, Rome, Italy. Accessed at <https://www.fao.org/3/cc0639en/cc0639en.pdf>
- GIZ, (2022). An Introductory Guide to Responsible Land-Based Investment for Communities, Government And Investors, Bonn, Germany, November 2022. Accessed at https://www.giz.de/en/downloads/giz2016_eng_Land_in_German_Development_Cooperation.pdf
- GIZ (2022). Promoting, Facilitating and Regulating Responsible Land-based Investment: A Manual for Governments. Bonn, Germany, November 2022. Accessed <https://www.giz.de/de/downloads/giz-2022-en-promoting-responsible-governance-of-investments-in-land.pdf>
- GoU, (2013). The Uganda National Land Policy, MLHUD, February 2013, Kampala, Uganda. Accessed at [file:///C:/Users/bsserunjogi/Downloads/the_uganda_national_land_policy-february_2013\(5\).pdf](file:///C:/Users/bsserunjogi/Downloads/the_uganda_national_land_policy-february_2013(5).pdf)
- New alliance for food security and nutrition, (2015). Analytical Framework for Land-Based Investments in African Agriculture: Due Diligence and Risk Management for Land-Based Investments in Agriculture, pp. 3, Addis Ababa, Ethiopia. Accessed at <https://www.land-links.org/global-policy/analytical-framework/>
- NPA, (2020). Third National Development Plan (NDPIII) 2020/21 – 2024/25 June 2020, pp. 5, Kampala, Uganda. Accessed at http://www.npa.go.ug/wp-content/uploads/2020/08/NDPIII-Finale_Compressed.pdf
- Thorsten H., Mwase R., Eilu T. A. and Hodges S, (2020). Compliance to National and International Guidelines of Land-Based Agricultural Investments in Uganda – Experiences from Ugandan Medium-Scale Domestic Farmers on Private Mailo and Customary Land Tenure. Paper prepared for presentation at the World Bank Conference on Land and Poverty. The World Bank - Washington DC, March 16-20, 2020. Accessed at <https://www.oicrf.org/-/compliance-to-national-and-international-guidelines-of-land-based-agricultural-investments-in-uganda-experiences-from-ugandan-medium-scale-domestic-farmers-on-private-mailo-and-customary-land-tenure>

Annex

Box 1: The Seven Sections of the Investment Compliance Tool:

Section 1: Contribute to food security and nutrition, promote safe and healthy agriculture and food systems (CFS-RAI principles 1 & 8)

Section 2: Contribute to sustainable and inclusive economic development and the eradication of poverty

Section 3: Promote gender equality, women empowerment, youth engagement and support to the disabled (CFS-RAI principles 3 & 4)

Section 4: Respect tenure of land, fisheries, and forests, and access to water

Section 5: Conserve, sustainably manage natural resources, increase resilience, and reduce disaster risks

Section 6: Respect cultural heritage and traditional knowledge, and support diversity and innovation

Section 7: Incorporate inclusive and transparent governance structures, processes, grievance mechanisms and assess and address impacts and promote accountability (CFS-RAI principles 9 & 10)

- 17 The interventions areas are selected through bilateral cooperation agreements between the German and Ugandan governments
- 18 The VGGT are a “soft law” instrument as they are voluntary and without force of law. They are to be interpreted in light of national and international law. While voluntary, they have been endorsed by more than 100 countries and thus have great influence on land governance legal frameworks (GIZ, 2022).
- 19 <https://socadido.org/the-investment-compliance-monitoring-guide-book-2-0-in-english-luganda-ateso-and-lango/>

Endnotes

- 5 The High 5s include: (i) Light up and power Africa (ii). Feed Africa (iii). Industrialise Africa (iv). Integrate Africa and (v). Improve the quality of life for the people of Africa
- 6 Cattle, goats, piggery, poultry rearing, coffee, sugarcane, maize, eucalyptus, pine tree, pineapple, mango and citrus fruit growing among others continue to change rural landscapes.
- 7 Inclusive and sustainable development is one of seven aspirations of the African Union States under Agenda 2063 where low performance was reported at 37 percent.
- 8 Responsible agriculture investments strive at limiting or avoiding the resettlement of local people, recognizing and respecting all legitimate land rights for individual land holders and users, actual or potential impacts on labour and children's rights among other human rights, recognition of the different needs and challenges facing women and men in terms of accessing and exercising rights to land and natural resources.
- 9 The Voluntary Guidelines on the Governance of Tenure of Land, Fisheries and Forests (VGGT), the Analytical Framework for Land-Based Investments in African Agriculture (the “Framework”) etc.
- 10 <https://fsduganda.or.ug/focus-groups/smallholder-farmers/>
- 11 <https://www.youtube.com/watch?v=DdmUopw4vFE>
- 12 RGIL project component is implemented in the RELAPU project intervention districts of Mubende, Kassanda, Gomba and Mityana in the Central region, Dokolo and Amolatar in Lango as well as Soroti and Katakwi in Teso region.
- 13 See foot note 11.
- 14 <https://www.monitor.co.ug/uganda/news/national/businessman-abid-alam-on-the-spot-over-fresh-land-evictions-1745582>
- 15 <https://www.newvision.co.ug/news/1525597/foreign-investors-responsible-land-evictions-report>
- 16 Although these principles are non-binding guidelines, that serve as benchmarks for assessments of practices and review of national policy, legal and institutional frameworks, Uganda is a signatory to international human rights treaties upon which the VGGTs and CFS-RAIs are based.



CHAPTER

FINANCING AGRO- INDUSTRIALISATION PROGRAMME: SOME ISSUES

6.1 CAN THE PROGRAMME-BASED PUBLIC FINANCING DELIVER UGANDA'S AGRO-INDUSTRIALISATION AGENDA?

Regean Mugume¹ and Blessing Atwine²



6.1.1: Introduction

One of the long-term aspirations of Uganda as outlined in the Uganda Vision 2040 is to transform the structure of its economy (NPA, 2007). The Vision particularly identifies agriculture as a key vehicle to deliver her development agenda, given the sector's contribution to employment, export earnings, economic growth and livelihood; with the sector employing about 68 percent of the population (UBOS, 2021a) and contributing about 24 percent of Gross Domestic Product (GDP) and agricultural commodities accounting for 71 percent of the country's export merchandise (UBOS, 2021b).

Given the significance of agriculture, the Vision 2040 earmarks Agro-industrialisation (AGI) as a catalyst for inclusive and equitable growth, through increased export competitiveness, enhanced employment and enhanced food security critical for the livelihoods of the low-income

earners, women, children and people with disability. The relevance of agro-industrialisation is inspired by the need to transform Uganda's agriculture from subsistence to commercial agriculture, 65 percent of the farmers are engaged in subsistence production characterised by limited use of inputs which translates into low farm yields and low household incomes (EPRC, 2020). Because of limited agro-processing, Uganda's agricultural products are also classified as low value and fetch low prices in both domestic and export markets which explains the low sector contribution to the economy (UBoS, 2021b).

Growth in agriculture in Uganda is hampered by factors such as limited use of fertiliser and quality seeds, and a lack of irrigation infrastructure which render production vulnerable to climatic extremes and pest and disease infestations (Fowler and Rauschendorfer, 2019). Agro-processing is also impaired by lack of quality packaging capabilities, insufficient storage facilities, poor post-harvest handling practices, shortage of agricultural credit,

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high freight costs, lack of all-weather feeder roads in rural areas, a complicated and inefficient land tenure system, and limited knowledge of modern production practices.

Accordingly, in its quest to transform the economy, Government has continually pushed for agro-industrialisation as a key priority area in the National Development Plans (NDPs). In the past, both NDP I and NDP II recognised agro-industrialisation as one of the five investment areas with the greatest multiplier effect on the economy. Particularly, NDPs underscore the need for Uganda to commercialise agriculture, and increase value addition and marketing as a pathway for industrialisation. NDP I and NDP II were however beset by persistent implementation shortfalls resulting from uncoordinated planning, weak harmonisation, and limited sequencing of programmes (NPA, 2016). The other drawback was poor alignment of outputs with development outcomes. For instance, output-based performance indicators for Uganda's agricultural advisory services focused on the quantity of seedlings and fertilisers distributed to farmers instead of the quality and quantity of agricultural products (Ssekitooleko, 2020). As such, the achievement of outputs did not necessarily translate into development outcomes.

To address these challenges, the Government in the third National Development Plan (NDPIII) for the period 2020/21 – 2024/25 transitioned to a programmatic approach to planning and budgeting. This reform, also known as programme-based budgeting (PBB) approach which has been widely adopted in other African countries, such as Ghana, Guinea Bissau, Mauritius, Tanzania, Ethiopia and South Africa, aims to better align priorities and spending plans and improve value for money outcomes (CABRI, 2015). In the new PBB budget reform, the Government still identified agro-industrialisation as one of the 18 priority programmes for achieving the 2040 development agenda. This implies that instead of allocating resources to line items (budget votes) in agriculture, the resources are allocated along programmes.

Just like for the past planning frameworks (NDPs), the

envisaged goal of agro-industrialisation in the NDP III is to promote commercialisation and competitiveness of agricultural production and agro-processing. To achieve this goal, the key result outcomes set to be achieved over the period 2020/2021-2024/25 are: enhancing export value of selected agricultural commodities; increasing the agricultural sector growth rate; promoting labour productivity in the agro-industrial value chain; creating jobs in agro-industry; and promoting food security at household levels. The programme identifies strategic commodities that are critical to fostering Uganda's agro-industrialisation agenda, particularly coffee, tea, fish, cocoa, cotton, vegetable oil, beef, maize, dairy and cassava. With implementation of the NDP III underway, we examine in this article Uganda's progress towards achieving her agro-industrialisation agenda as outlined in the third National Development Plan (NDPIII), with focus on effectiveness of the institutional framework for implementation of the agro-industrialisation programme and performance so far against NDP III targets.

6.1.2: Institutional Framework for the Agro-Industrialisation Programme

An effective institutional framework is critical for effective coordination and implementation of the AGI programme activities at all levels for the realisation of outcomes articulated in the NDP III. The AGI framework is premised on the Programme Implementation Action Plan (PIAP) which sets out the various activities and resources (including human resource) required to deliver the AGI programme targets.

Noteworthy, implementation and coordination of the programme activities are based on the Committee and Working Groups structure. The AGI leadership, implementation and oversight body is the Programme Leadership Committee, under which are the Programme Working Group (PWG) and the Programme Technical Working Group. Each of these working groups has representatives from different Ministries, Department, and Agencies (MDAs).

Specifically, the Programme Leadership Committee (PLC) is led by the line Minister of the lead implementing partner of the AGI programme – Ministry of Agriculture, Animal Industry, and Fisheries (MAAIF), and its membership is drawn from the political leaders (ministers) of the AGI implementing ministries. The Committee provides oversight function over programme implementation, enabling policy level coordination and monitoring of progress towards targeted outcomes.

The Programme Working Committee (PWC), on the other hand, is chaired by the Permanent Secretary of the lead AGI programme ministry (MAAIF), with membership drawn from permanent secretaries and heads of institutions that constitute the AGI programme. This Committee is responsible for the preparation of Programme implementation plans, Programme Budget Framework Papers (PBFs), Quarterly and Semi-Annual performance reports. Meanwhile the mandate of the Programme Technical Working Committee is to monitor implementation of sub-component programme areas under PIAP, and raises emerging issues for consideration by the PWG. The Technical Working Committee is constituted by the different technical officers drawn from the MDAs in the AGI programme. The programme is also supported by the Secretariat to strengthen the coordination of public and private institutions in design and implementation of policies for the AGI programme.

Under the Working Groups and Committees are representatives of the implementing partners which include MDAs and Local Governments (LGs), private sector organisations, civil society, and non-governmental organisations (NGOs), public and international research organisations, Academia, and Development Partners. These partners are classified as main implementers while others provide complementary services critical for the AGI programme to attain its goal. The main implementers are MAAIF (AGI programme implementation leader) and Ministry of Trade, Industry and Cooperatives (MTIC) — charged with the establishment of storage and marketing infrastructure and negotiating access to regional markets,

among other roles.

Other MDAs implementing complementary interventions include (i) Ministry of Local Government (MoLG), whose main interventions are the development of agriculture market infrastructure and delivery of agricultural extension services; (ii) Ministry of Water and Environment (MoWE)- charged with ensuring adaptation to Climate Change and developing appropriate water for agricultural production projects; (iii) Ministry of Lands, Housing and Urban Development (MoLHUD)- responsible for land policy and land management issues and easing access to arable land; (iv) Ministry of Works and Transport (MoWT)- to spearhead development of transport infrastructure for promoting internal and regional trade; (v) Ministry of Energy and Mineral Development (MEMD)- task with developing energy sources and subsidies for agro-industrialisation; and (vi) MoFPED- to spearhead enhancement of public and private sector investment, facilitating credit access and tax and investment incentives for agro-industries. The other key player is the private sector which comes in to address key AGI intervention areas including engaging in Public-Private Partnership (PPP) initiatives aimed at enhancing private investment in agriculture, agribusiness, and agro-industries.

This institutional makeup is considered adequate and supportive enough to ensure shift from sector to programme-based planning, financing and implementation of the agro-industrialisation programme. This is because the available frameworks clearly define interventions that each institution is charged with, depending on their capacity and budget to execute given tasks. On top of this, the Government coordination role played by the Office of the Prime Minister (OPM) ensures that all ministries and institutions work together to achieve the AGI goal of increased commercialisation and competitiveness of agricultural production and agro-processing.

Figure 44 presents the institutional framework of the AGI programme, and depicts the relationship between the different actors involved in implementation of the initiative.

Despite the clear roles, there are gaps that exist regarding coordination of different institutions in the provision of services. For example, whereas Government supplies agricultural inputs to farmers, there is a challenge of inadequate staffing in districts to ensure reach of inputs to all targeted beneficiaries. Furthermore, the programme suffers limited access to land for setting up projects, especially for infrastructure and demonstration, which has become a major constraint to its implementation. Moreover, the processes to acquire such needed land are lengthy and complex due to land tenure and ownership challenges. Therefore, the Government needs to reactivate District Land Boards to expedite land access in time.

6.1.3: Examining the Shift from Sector to Programme-based Financing of the Programme

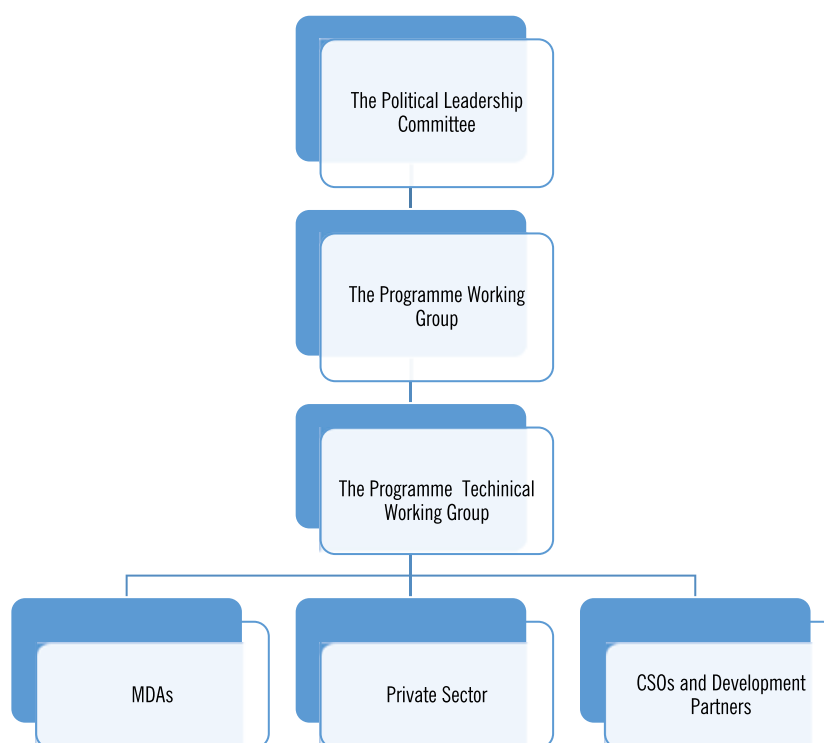
In 2008, the Government of Uganda, through the MoFPED, introduced the sector-based approach to planning and budgeting, with budget allocations based on the different sectors. Under this arrangement, sector MDAs were

required to prepare policies, plans and budgets and consolidate them into sector development plans aligned to NDP I and II and the Uganda Vision 2040 (NPA, 2016). However, the implementation of this reform faced several challenges, key among which was the failure to effectively link budgets to development objectives. Because of this drawback, Central and Local Governments in Uganda spent resources on low-priority projects that do not serve the strategic development objectives of the Country (Ssekitoleko, 2020).

Evidence shows that the annual Budget for FY 2015/16 was only 58.9 percent aligned with the National Development Plan II (NPA, 2016). This, therefore, implies that only 58.9 percent of the designated targets would be achieved. To address the challenge of misalignment, the Government introduced the programme-based budgeting approach in FY 2017/18 to strengthen the link between Government strategic objectives, Budget allocations and service delivery outcomes (Abewe *et al.*, 2021).

The PBB approach heavily borrowed from the previous

Figure 44: The institutional framework for the Agro-industrialisation programme



Source: Authors' own construct based on the NDP III

Output-Oriented Budgeting (OOB) approach under sector-based budgeting. Under the new approach, the vote function³ from the OOB became a “programme” in the PBB, and the departments and projects within the vote became the 18 sub-programmes, and indicators and targets were then developed for each. To implement the PBB reform, the Government further put in place a web-based electronic Budget application to facilitate preparation of budget documents and execution reports, and to strengthen the link between financial budgets with results (outputs/outcomes). The system also helps MoFPED to consolidate budget documents and reports from different MDAs.

Since initiation, however, evidence shows that there is slow transition to the programme approach by the different key stakeholders among MDAs and the LG levels. For instance, the Committees of Parliament and the civil society organisations (CSOs) are still using the sector-based budgeting approach and have up to now not understood the essence of the Budget transition to programme approach (Namugga, 2023; Katabazi, 2021), and various MDAs still use the outdated sector-wide approach to planning (CSBAG, 2022).

The transition to PBB approach has also been slowed at the LG level where there is limited appreciation among the political leadership due to inadequate knowledge,

negative attitude, resistance, and fear of change despite the numerous capacity building sessions carried out for them (NPA, 2022). Additionally, the PBB system is internet based and therefore requires stable internet and power supply to facilitate timely data entry, particularly in the rural LGs. This has hampered the timely budgeting process and budget data entry and submission. For instance, the budget call circular for FY 2022/23 showed that all the new budget outputs and coding were finalised, however the changes were not operationalised in the budgeting systems by July 2022.

Consequently, there was misalignment between Programme Budgeting System (PBS) and the Integrated Finance Information System (IFMIS). For instance, some MDAs and LGs failed to finalise their budgets for FY2022/23 because their results (some PIAP results) were not reflected in the PBS even though the budgets were passed. As a result, until FY 2021/22, budget allocations still took the sector-based approach with funds allocated to sectors based on budget votes as opposed to the programmes in the NDPIII. This delay in implementation of PBB affected the alignment of budgets and activities to long-term development targets. An excerpt of the budget allocation from the 2020/21 budget framework paper (Figure 45) highlights this challenge.

Figure 45: An extract of the National Budget framework paper on the vote budget allocation

Billion Uganda shillings Programme Service	2018/19	2019/20		2020/21	Medium Term Projections			
	Outturn	Approved Budget	Releases by end Q1	Proposed Budget	2021/22	2022/23	2023/24	2024/25
Vote : 010 Ministry of Agriculture, Animal Industry & Fisheries								
01 Crop Resources	89.667	270.184	41.383	102.263	110.671	77.253	49.408	48.403
02 Directorate of Animal Resources	47.963	107.918	29.893	80.408	80.408	75.863	70.627	77.627
03 Directorate of Agricultural Extension and Skills Management	3.547	3.864	0.502	2.976	4.976	4.976	5.063	13.463
04 Fisheries Resources	8.058	21.038	1.517	31.940	30.784	27.307	17.163	24.463
05 Agriculture Infrastructure, Mechanization and Water for Agricultural Production	27.846	48.436	7.381	60.436	60.776	60.776	76.401	69.341
49 Policy, Planning and Support Services	31.648	68.054	7.126	104.532	102.301	90.632	58.857	53.289
Total for the Vote	208.728	519.494	87.802	382.556	389.917	336.806	277.520	286.587

Source: National Budget Framework paper (2020/21)

The other drawback in the shift to the programme approach relates to inadequate release of funds and low absorption of budgeted resources by implementing MDAs, illustrated by the budgetary allocations and performance for the FY 2020/21, as indicated in the National Budget Framework Paper 2020/21 (Figure 46). Specifically, evidence shows that out of the planned UGX 1.53 trillion allocated to the agro-industrialisation programme, only UGX 1.31 trillion was released by the end of the Financial Year, equivalent to 85.4 percent of the approved budget. Even then, only UGX 1.2 billion of the UGX 1.3 trillion of the funds released were absorbed and used to implement AGI programme activities. Limited funding of the programme negatively affects the long-term achievement of its targets.

Evidence further shows that a substantial share of the budget resources (43 percent) are externally sourced from donors and loans, with 57 percent locally funded. These funding gaps are attributed to the COVID -19 related expenditure. The MAAIF programme performance report 2020/21 attributes limited budget absorption to the delayed release of funds by the Government (MAAIF, 2022).

The delay is mostly among donor funded projects with a budget performance of 77 percent largely due to lengthy

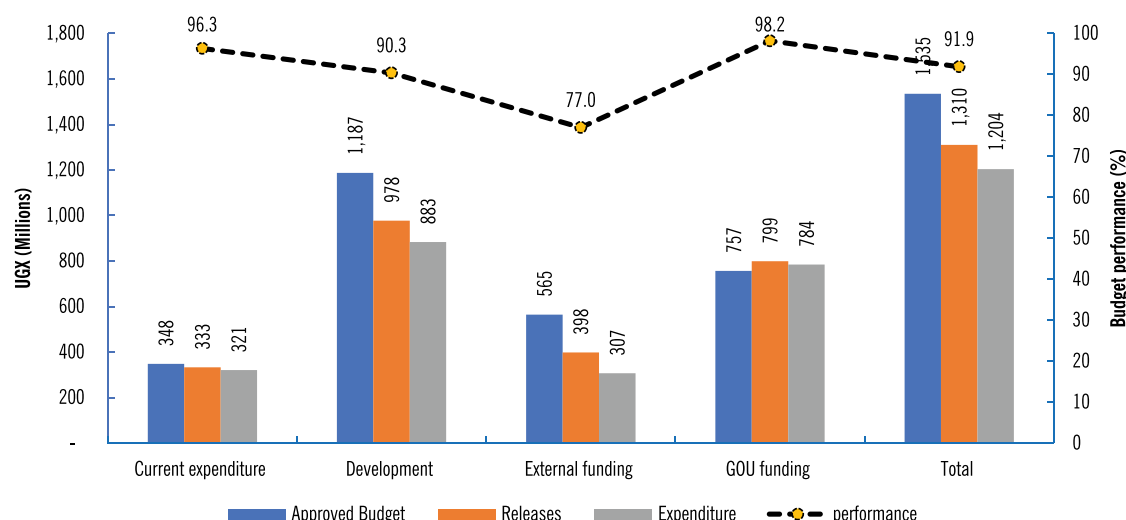
and strict protocols associated with donor funding. These delays have undermined districts' capacity to recruit extension workers and other agricultural staff critical in implementing AGI programme activities (*ibid*)

6.1.4: Performance of the Agro-industrialisation Programme

Government started implementation of the agro-industrialisation programme of the NDP III in FY2020/21. It was envisaged that the programme would increase commercialisation and competitiveness of agricultural production and agro-processing. It contributes to NDP III's first strategic objective of enhancing value addition in key growth opportunities.

The AGI programme contributes directly to ten outcomes with a total of 17 indicators, and the indicator performance for outcomes are summarises in Table 29. The AGI programme achieved 6 of the 11 programme targets despite numerous disruptions, including locusts, COVID-19 pandemic and floods, that severely affected production and market access. Indicative of the potential benefit of the programme, the number of jobs created in the agriculture value chain, for instance, was almost twice (160,508) the original target (75,000). This was partly due to strong partnerships between Government and private

Figure 46: Budget allocation and performance for the agro-industrialisation programme in FY 2021/22



Source: MAAIF (2022)

actors which provided opportunities for employment creation. Several agro-processing and value-addition enterprises were established and rehabilitated for key priority commodities such as tea, sugarcane and cotton, which also contributed to the job creation. Additionally, Government programs, such as the Youth Livelihood Programs, *Emyooga* and subsidised input distribution, supported households to invest in production and the agricultural value chains, thus increasing their food security.

In spite these successes, however, implementation fell short of outcome indicator targets in regards the to agricultural real GDP growth rates, export value of priority agricultural commodities, agricultural labour productivity, and the proportion of farmers who accessed agricultural financing. Several factors were responsible for the underperformance in these key result areas. First, agricultural real GDP growth rate was affected by adverse effect of the COVID-19 pandemic, locust invasion and floods (NPA, 2022).

Similarly, because COVID-19, floods and locusts, the export volume of fish and cotton, part of the key export commodities dropped significantly and affected export earnings(*ibid*). Regarding agricultural financing, access

to credit by small-holder farmers was adversely affected because of deterioration of non-performing asset portfolios due to reduced earnings from produce by borrowers during the period.

Added to these, implementation of interventions, such as infrastructure projects that enhance labour productivity, was affected by budget cuts and insufficient funding arising from near shut down of the economy because of COVID -19 restrictions.

Beyond the public financing of the AGI programme, the NDP III identifies private sector as a key alternative financing partner of agro-industrialisation. However, private financing for agriculture has been far below the targets envisaged in the plan. Evidence shows that agriculture-related investment projects account for only 13 percent of the total private investments estimated at USD 90 million in FY 2019/20 (UIA, 2021). The low levels of private investment have impeded attainment of AGI programme outcome targets, as progress was only mainly reliant on scarce public financing by Government. Limited private sector investment is attributed to several factors, key among them being the high cost of lending to the agricultural sector due to the high and numerous risks that affect agriculture.

Table 29: AGI programme outcome indicators performance

Description (outcome and its indicators)	FY 2017/18 (Baseline)	Target	FY 2020/21
Agricultural Real GDP growth rate (%)	3.8	5.2	3.5
Export value of priority agricultural commodities (USD Billion).	0.935	1.217	0.993
Area under formal irrigation (ha)	15,147	19,776	22,504
Percent of food secure households.	69	75.2	78.3
Labour productivity in agriculture (USD).	2,212	2,527	945
No of jobs created in the agro-industrial value chain.	0	75,000	160,508
Share of agricultural exports to total exports (%).	26	29	32.1
Value of agricultural imports (USD billion).	1.2	1.1	0.6
Share of agricultural financing to total financing.	10	12	12
The proportion of farmers that access agricultural finance	33	40	10
Level of satisfaction with service delivery in agroindustry (%).	20	40	61

Source: MAAIF (2021)

6.1.5: Emerging Policy Options

The introduction of the NDP III marked the start of a new programme-based approach to budgeting to reduce inefficiencies and improve alignment of budgets to development outcomes. Since its inception 2019/20, the AGI implementation has achieved various milestones for the agro-industrialisation programme. Specifically, it has realized 54.5 percent of planned key result outcomes; progress has been made in employment creation in the agro-industrial value chain; increased area under irrigation; building of food secure households; and increased share of agricultural exports in relation to total exports.

Nevertheless, challenges were encountered that hindered efforts to achieve some programme targets. First, delays by Central and Local Government officials to adopt the shift from sector-based to programme budgeting undermined the alignment of resources (budget) to development targets at all levels of planning. The shift to the online system further increased errors and delayed budget execution and implementation of programme activities. Additionally, programme implementation remains limited by delay in disbursing resources in relation to planned resources. The delay of funds curtailed the hiring of enough technical staff, such as extension workers, Local Governments to implement key agricultural production initiatives. In light of the above challenges in the implementation of the AGI programmes, urgent consideration should be given to some of the recommendations outlined below.

- (i) MoFPED and MAAIF need to establish and strengthen public-private partnerships to improve private sector investments in areas of value addition and irrigation schemes among other interventions.
- (ii) MoFPED should train and build the capacity of Government officials at the Central and Local levels to fully understand the programmatic approach to planning and budgeting. In this respect, the PBS should be rehabilitated to avoid systematic errors and breakdown to enable timely submission of

budget data by LGs.

- (iii) MoFPED needs to ensure adequate and timely release of funds to the local governments to ensure implementation of AGI programme activities. Notably, funds to ensure the recruitment of extension workers at LG need to be prioritised.

With the above, the AGI programme will definitely help Uganda modernise its agriculture, transform production, productivity and value chain activities to help assure food security and household incomes and the rapid transformation of the country's economy.

References

- Abewe, C., Margini, F., Mwami, E., Mwoga, J., & Kwesiga, B. (2021). Transition to programme budgeting in Uganda: status of the reform and preliminary lessons for health.
- CSBAG, (2022). Track implementation of the Programme Based Budgeting Approach. Civil Society Budget Advocacy Group, Kampala, Uganda.
- EPRC, (2020). Fostering a sustainable Agro-industrialisation Agenda for Uganda. Economic Policy Research Centre, Kampala, Uganda.
- Fowler, M., & Rauschendorfer, J. (2019). Agro-industrialisation in Uganda. International Growth Centre. Kampala, Uganda.
- Katabazi, K. (2021). Alignment of NBFP to Programme-based Budgeting is Commendable. Centre for Tax and Budget analysis. Kampala, Uganda
- MAAIF, (2021). The Agro- Industrialisation programme annual performance in the FY 2020/21. The Ministry of Agriculture Animal Industry and Fisheries (MAAIF). Kampala, Uganda
- MoFPED, (2021). The National Budget Framework Paper 2020/21. Ministry of Finance Planning and Economic Development (MFPED)
- NPA, (2007). The Uganda Vision 2040. The National Planning Authority. Kampala, Uganda
- NPA, (2016). Certificate of Compliance for the Annual Budget FY2016/17: Assessment Report. Kampala:

Uganda National Planning Authority. Kampala, Uganda

[NPA, \(2022\)](#). Mid Term Review (MTR) of the third National Development Plan (NDPIII). Monitoring and Evaluation Framework Thematic report. Uganda National Planning Authority. Kampala, Uganda

[Sahan, E., and Mikhail M. \(2012\)](#). Private Investment in Agriculture: Why it's essential, and what's needed. Oxfam.

[Ssekitoleko, J. \(2020\)](#). Strengthening budgeting for sustainable development: Uganda's transition from output-based budgeting to program-based budgeting, Ministry of Finance Planning and Economic Development, Kampala, Uganda

[UBOS, \(2021a\)](#). Statistical Abstract 2021. Uganda Bureau of statistics. Kampala, Uganda

[UBOS, \(2021b\)](#). GDP publication, 2021. Uganda Bureau of statistics. Kampala, Uganda

[UIA, \(2020\)](#). The Annual Investments Abstract 2019/2020. Uganda Investment Authority. Kampala, Uganda

Endnotes

- 3 The money approved by Parliament to cater for the activities and programmes of Government Ministries and Departments

6.2 TRACKING ANCILLARY AGRICULTURAL FINANCING FOR SUPPORTING UGANDA'S AGRO-INDUSTRIALISATION PROGRAMME

Sandra Nakabiri¹ and Mukisa Muhamad²



6.2.1: Introduction

It is the aim and goal of Uganda to industrialise and transform the structure of its economy by 2040. Agriculture being central to the Uganda's economic growth, poverty reduction, employment creating and household income and food security, focusing on agro-industrialisation offers the country a great opportunity to embark on its long-term aspiration of transitioning into a modern industrial economy.

A study by EPRC (2018), points out that agro-industrialisation can provide huge benefits to Uganda, of particular being that: (i) its potential to promote inclusive and equitable growth, especially in rural areas, as well as closing income disparities; (ii) past positive trade balance for agro-industrial products can be improved by tapping into the growing local market of agro-manufactured products (via import replacement) and fully

exploiting opportunities available in international markets (export promotion); (iii) agro-industrialisation presents opportunity for the country to tap internal markets that arise from urbanisation (at an annualised growth rate of 5.4 percent) and a growing middle class that demands higher quality and value-added agro-industrial products; (iv) through agro-industrialisation, Uganda can address the high post-harvest losses now ranging between 20 to 40 percent of production at crop level; and (v) that the forward and backward linkages between agriculture and agro-industries can help Uganda upgrade agro-value chain activities and create employment for citizen beyond primary production.

With the launch of the third National Development Plan (NDP III) (2020/21 – 2024/25), Government transitioned from the sector/silo-based approach to planning, budgeting, and implementation that characterised the NDP I (2010/11 – 2014/2015) and NDP II (2015/16 – 2019/2020) periods, to the programme approach that now brings together various Ministries, Departments,

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and Agencies to plan, budget and implement particular programmes. Under the NDP III, agro-industrialisation is one of the 18 programmes that government is focusing on, with the particular goal of enhancing commercialisation of agriculture and improving volume and competitiveness of outputs and products of agro-processing.

The agro-industrialisation programme has five sub-programmes, namely: agricultural production and productivity, storage, agro-processing and value addition, agricultural market access and competitiveness, agricultural financing and institutional strengthening and coordination. However, despite its clarity political commitment, actual achievement of the agro-industrialisation targets requires adequate financing from public, private financiers as well as development partners.

Previous public financing of the agricultural sector came through direct budget support, some anchored on global and continental declarations of which Uganda is party to. In 2003, for instance, Uganda was a signatory to the Maputo Protocol of 2003, which required member countries to commit to allocating at least 10 percent of their national budgetary resources to agriculture to enable achievement of 6 percent growth of the agriculture sector. On the other hand, the Malabo Declaration of 2014, re-affirmed the central commitment Africa made in Maputo in 2003, namely, to allocate 10 percent of public resources to agriculture. It also specified more clearly a range of commitments in agriculture, including increased

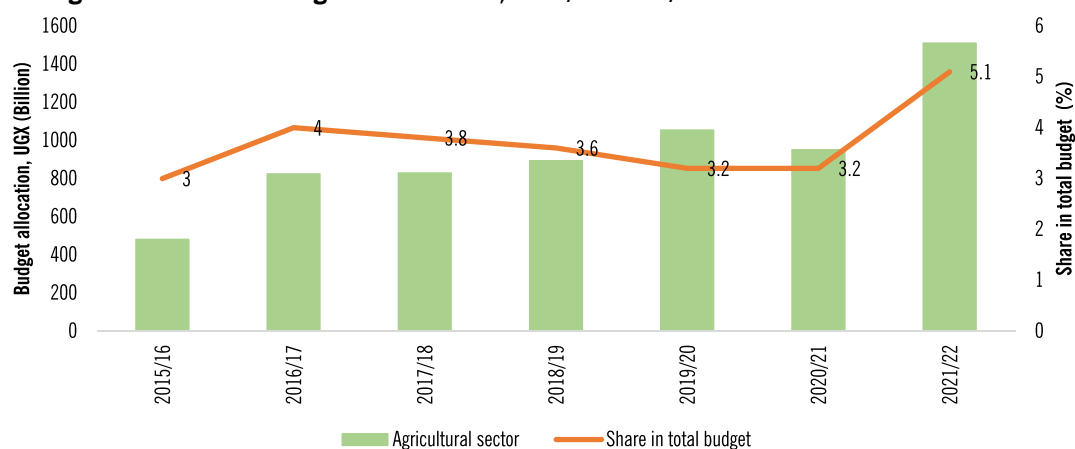
irrigation and mechanisation and curtailing post-harvest losses among others.

Typically, scrutiny of budget allocation to the agriculture sector in Uganda has been limited only to the direct of allocations towards the agricultural sector, in isolation of public funding of other supportive ancillary expenditures to benefit agriculture. As such, analyses commonly reported that budgetary expenditure on agriculture in Uganda averaged about 3 percent over the past 6 years before increasing to about 5 percent in FY 2021/22. However, public investments in agro-industrialisation actually go beyond investments in the agricultural sector only. On the basis of this recognition, therefore, this article tracks the progress in public financing towards ancillary agricultural expenditure and investments that are part and parcel of requisite investments for Uganda's agro-industrialisation programme.

6.2.2: Trends in National Budget Allocation Towards Uganda's Agricultural Sector

In the past, the total budgetary allocation to the agricultural sector has generally been increasing in nominal terms by 3–4 percent over the past NDP I and NDP II periods before increasing by about 5 percent under the NDP III (Figure 47). The steady increase in the sector budget allocation over the years indicated the commitment of Government to prioritise the sector.

Figure 47: Budget allocation to the agriculture sector, 2015/16–2021/22



Source: Author's construct based on data from the MoFPED, Background to budget report

Agricultural sector allocation under NDPIII. From FY 2020/21, there was notable increase in the budgetary allocation for the agriculture sector. This was largely due to Government adopting the programme planning and budgeting approach where the agriculture sector moved to implementation as the agro-industrialisation programme. This programme is an amalgamation of other activities that were previously under different sectors including agro-processing and marketing; with the goal of addressing in concert all components of the agricultural value chain so as to increase commercialisation and competitiveness of agricultural production and agro-processing.

Whereas direct budget allocation to the agricultural sector has not exceeded 5 percent of the National Budget over the past 7 years, total public investments to agro-industry, especially for FY 2020/21 and FY 2021/22, exceeded the 10 percent commitment to agriculture agreed to in the Maputo Protocol of 2003. This is reviewed below.

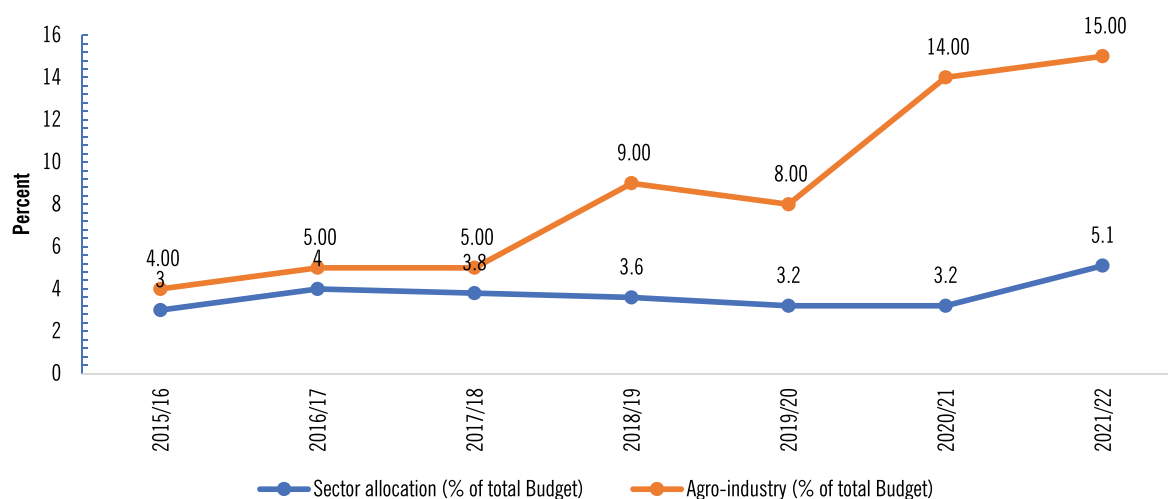
Budgetary allocation for agro-industry. The analysis of public investments towards agro-industrialisation analysed here are categorised under six ancillary funding areas, namely infrastructure, agriculture, manufacturing, trade and marketing, credit facilities/ financing, and skills. An amalgamation of the budget allocations to the different agricultural components of the cited thematic areas

reveals a much larger allocation to the agro-industry sector as shown in Figure 48 below. Overall, the allocation has increased from about four percent in FY 2015/16 to around 15 percent in FY 2021/22.

Of the six thematic funding areas under review, infrastructure and agriculture registered the largest shares of the budget. Indeed, disaggregation of the agricultural funding theme indicates that several components, namely funding for water for production, extension services, research and development of Uganda coffee Development Authority, account for large shares of the budget as do specific projects such as Agricultural Cluster Development Project and the National Oil Palm Project. Under the infrastructural component, rural electrification accounts for more resources than transport; and has had very significant impact on post-harvest handling and the quality of Uganda's agricultural produce.

Despite the increasingly large public funding for agricultural infrastructure to promote Uganda's agro-industrialisation, concerted effort is still required to increase public funding towards other segments especially the manufacturing, trade and marketing sub sectors. This is because these are essential for promoting agro-industries as well as off taking the envisaged increased production from the Parish Development Model (PDM). The above public

Figure 48: Budgetary allocation for agriculture vis-a-vis agro-industry in Uganda (percent)



Source: Authors construct based on data from MoFPED

investments are also expected to rejuvenate the economy now characterised by slowdown. Besides supporting development of core agricultural infrastructure, Government has also continued to intervene in supporting agro-industry development through public policy initiatives that create an environment conducive to spurring private sector investment.

6.2.3: Public Funding for Ancillary Sectors to Aid Agro-industrialisation

Typically, examination of budget allocation to the agriculture sector has been limited to only direct allocations towards the agricultural sector in isolation from public support towards other ancillary agriculture supporting expenditures. While, as earlier indicated, budgetary allocation for the agriculture sector averaged about 3 percent over the past 6 years, and only increasing to about 5 percent in 2021/22, public investments in support of agro-industrialisation extended beyond direct investment in agriculture to areas such as infrastructure, transport, energy, industries, and trade and marketing.

The Uganda agro-industrialisation programme relies heavy on supportive road/transport infrastructure, such as national, district and urban roads and community access roads; the energy infrastructure (rural electrification); and physical structures. Infrastructure development

plays a significant role in raising agricultural production and productivity, storage and processing, easing access to markets and creation of opportunities to improve the livelihood of rural communities.

Oxfam (2013) observed that vital agriculture-related infrastructure can be bigger constraints to food availability and bigger drivers of food price increases than the direct impacts on food production. Considering the role and importance of infrastructure in agriculture, therefore, we track funding to supportive agricultural infrastructure including (i) transport (district, urban and community access roads (MoWT), Road Fund (DUCAR), Local Government grant – roads; and ii) energy (rural electrification).

In Uganda, since 2015, total budgetary allocation to infrastructure for the agriculture sector has increased 16-fold, from 114 billion in FY 2015/15 to 1,885.97 billion in FY 2021/22, significant allocation skewed to funding rural electrification (Table 30). The increased support to rural electrification emanated from Government's strategy to increase access to power in rural areas. Indeed, starting in 2013, Uganda embarked on the Rural Electrification Strategy and Plan, a 10-year plan that intended to increase electricity access from 7 percent in 2013 to achieve a rural electrification access of 26 percent by 2022.

Table 30: Budget allocation for agricultural infrastructure, 2015/16 -2021/22

Budget Allocations			2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Thematic Area	Sector	Specific Intervention Areas	Total (bn)	Total (bn)	Total (bn)	Total (bn)	Total (bn)	Total (bn)	Total (bn)
Infrastructure	Transport	District, Urban and Community Access Roads (MoWT)	19.6	18.5	0.0	125.0	175.6	117.7	754.2
		Road Fund (DUCAR)	0.0	0.0	0.0	182.4	162.1	542.2	509.9
		LG Grant	35.5	22.8	22.8	23.4	22.9	24.5	24.7
	Energy	Rural Electrification	58.8	269.1	449.6	636.5	1060.8	1239.4	596.9
Sub-total (infrastructure)			114.0	310.5	472.4	967.4	1421.5	1924.0	1885.9
Total Budget – Agro-industry			557.6	1177.0	1484.0	2709.9	3001.7	4729.5	5137.4
Infrastructure/ Agro-industry (%)			20	26	32	36	47	41	37

Source: Authors construction based on data from NBFPS and sector BFPs / MoFPED

(i) Public finance towards supportive agricultural transport infrastructure. Budgetary allocation for supportive agricultural infrastructure has been growing steadily (Table 30), although rural transport, especially farm access roads and farm choke points, remain critically underinvested areas. With incoming implementation of the PDM, there is more urgent need to provide better community-based transportation to support lowering cost of production, and financing for district, urban and community access roads needs to increase to cater for the anticipated boost in production. It is thus imperative for Government to: (i) increase financing for agricultural transport infrastructure as a way of supporting the PDM; and (ii) that ensure that the current infrastructure policies and strategies are aligned to the intended investment in agricultural development.

(ii) Public finance towards supportive agricultural energy infrastructure. Rural electrification is the intervention that has direct impact on agricultural productivity and agro-processing. Government has thus continued to improve access to electricity in Uganda as shown by a significant portion of the infrastructure budget being allocated for rural energy (Table 30 above). The budget allocations for rural electrification increased persistently from UGX 58 billion in FY 2015/16 to UGX 1.2 trillion in FY 2020/21.

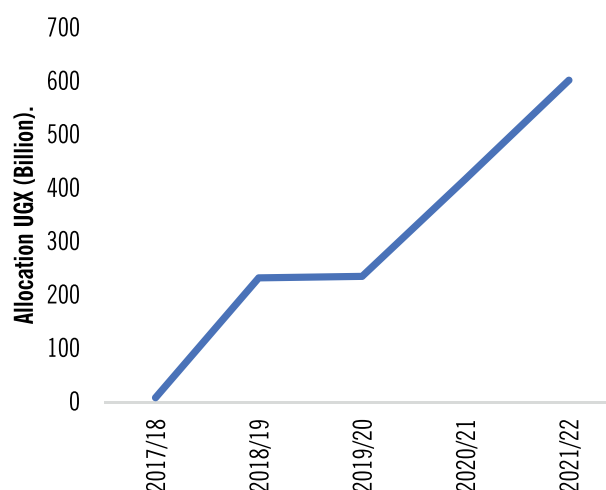
According to EPRC (2018), high cost of electricity is one of the factors affecting Uganda's agricultural base, as well as an inhabitant of the growth of agro-manufacturing industries. Whereas the increase in financing shows the commitment by Government to enhancing access to and lowering cost of electricity, there is urgent need to re-evaluate current strategies for ensuring availability of reliable and affordable electricity supply to rural areas, as these have direct bearing on agricultural productivity and agro-processing.

(iii) Agro-processing/manufacturing. Under the NDP III, it is estimated that as of 2018, the share of Uganda's processed agricultural products in the global

market is just 0.17 percent, and more than 30 percent on the African continent. With the agro-industrialisation agenda, to consolidate the continental market and improve the country's global market share, more resources must be committed to support agro-manufacturing.

Evidence shows that the manufacturing sector in general relies heavily on the agricultural sector productivity for both forward and backward linkages (NDP III). Aware of the above, Government allocated approximately UGX 602.3 billion in FY2021/22 in support of agro-processing (Figure 49). It is worth noting that allocations for these activities have been growing since FY 2017/18, and allocation to this activity grew by 77.3 percent in FY 2020/2021 and by 44.2 percent in FY 2021/22 (Figure 49).

Figure 49: Budget allocations for agro-processing and agro-manufacturing, 2017/18 – 2021/22



Source: Author's construct based of MoFPED database, 2022

Government has continued to implement initiatives and interventions geared towards addressing the value chain development through promotion of agro-processing. The Food Biosciences and Agribusiness Department in National Agricultural Research Laboratories (NARL) collaborated with Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) and Uganda National Bureau of Standards (UNBS) to transform research outputs into commercial products for the market. To support these

initiatives, Government expanded funding for agriculture research, innovation, and entrepreneurship activities under Ministry of Science Technology and Innovation (MoSTI) from UGX 224.1 billion to UGX 270.9 billion, accounting for 20.9 percentage growth.

Relatedly, Government continued the revival of Uganda Development Corporation (UDC) as an investment arm to promote and facilitate agro-industrialisation and facilitate social economic transformation. To that effect, while in the past Government investment through UDC had been considerably low, in 2021 committed for direct investment expanded by 472.5 percent from UGX 35.9 billion in FY2020/21 to UGX 209.7 billion (Table 31).

By 30th June 2022, UDC had capitalised up to nine companies, including Soroti Fruit Factory (Teso); Kigezi Highland Tea Ltd (Kigezi); Mabale Tea Factory (Tooro); Atiak Sugar Factory (Acholi); Kayonza Tea Factory (Western); Mpanga Tea Growers Factory (Tooro); and Bukona Agro-Processors Ltd (Northern). However, whereas Government has committed significant resources, most projects are either under-performing or operating at losses, others have stalled due to inadequate working capital, and for others funds have been channeled into projects that are at pre-investment stage or of poor governance (BMAU, 2022). Therefore, for public commitment to yield desired results, Government should work out modalities to address the

disjointed efforts among its credit and financing schemes and delays in disbursement of funds to spending entities.

(iv) Trade and marketing. Access to markets for agricultural commodities is among the core interventions being pursued by Government under the agro-industrialisation programme. Accordingly, Government is committed to expanding market access and competitiveness of Ugandan agricultural products in both domestic and international markets. It is therefore focusing on improving agricultural market infrastructure and strengthening enforcement and adherence to product quality requirements.

To this effect, in FY2021/22 Government appropriated UGX 409 billion funding for trade and marketing under Ministry of Trade, Industry and Cooperatives (MTIC) and Ministry of Local Government (MoLG), with focus on enhancing agricultural production and productivity. This was a 72 percent growth compared to UGX 237.9 billion that was allocated for the same activities in the previous Financial Year. Government also allocated UGX 65.0 billion to ensure continuous promotion of priority agriculture products on the domestic and international markets.

At the same time, investments for monitoring and maintenance of standards have also expanded at an average rate of 123.2 percent from UGX 3.68 billion in FY 2015/16 to UGX 68.94 billion in FY 2020/21. This

Table 31. Budget allocations for agro-manufacturing related activities, 2015/16 -2021/22

Sector	Specific Intervention Areas	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
MTTI	PPP Projects (under UDC)*	10.5	10.5	7.9	80.9	59.9	35.9	205.7
	Uganda Export Promotion Board	0.25	1.32	0.40	3.08	2.04	2.04	3.75
UIA	Industrial and Business parks Development	0.0	0.0	0.0	0.0	0.0	155.5	121.9
STI	MoSTI (Research & Innovation)	0.0	0.0	0.0	143.8	168.9	224.1	23.4
	MoSTI (Entrepreneurship)	0.0	0.0	0.0	4.5	4.5	0.0	247.4
Total		10.7	11.8	8.3	232.4	235.5	417.5	602.3

Source: Authors construct based on MoFPED database, 2022

* These projects include: Tea Factory (Kayonza), Tea Factory (Mbale), Tea Factory (Zombo/Nebbi), Luweero, Soroti Friut Factory, Atiak Sugar Factory and Luweero Meat Processing Plant

Government commitment prioritised enforcement of product certification; regulation of cross border informal trade in agro-products; renovation, construction and equipping certification laboratory facilities in various strategic locations; and training of farmers and manufacturers on sanitary and phytosanitary standards. In contrast, Government investment into promoting product standards fell by 5.7 percent to UGX 65.04 billion which may affect access, quality assurance and competitiveness of Ugandan products in regional and world markets.

Relatedly, to fast-track the establishment of markets especially under the Markets and Agricultural Trade Improvements Programme (MATIP 2), Government increased investment in market establishment by 105.6 percent (Table 32).

The intervention in market development sought to upgrade twelve markets in the Urban Councils of Arua, Busia, Entebbe, Kabale, Kasese, Kitgum, Lugazi, Masaka, Mbarara, Moroto, Soroti and Tororo; and for trade and markets related activities, Government spending increased from UGX 160 billion in FY2020/21 to UGX 329 billion in FY2021/22. According to BMAU (2022), construction of nine out of the 12 markets was completed, while the remaining three are at varying stages of completion. By July 2022, more than 50 percent of the market stalls were occupied mainly by vendors trading

in fresh and semi-processed agricultural produce. The partial occupancy of the constructed markets was due, among others, to competition from vendors operating in close proximities outside the markets and dealing in similar/identical commodities; and unfavorable designs and non-functionality of some of the equipment installed in these markets.

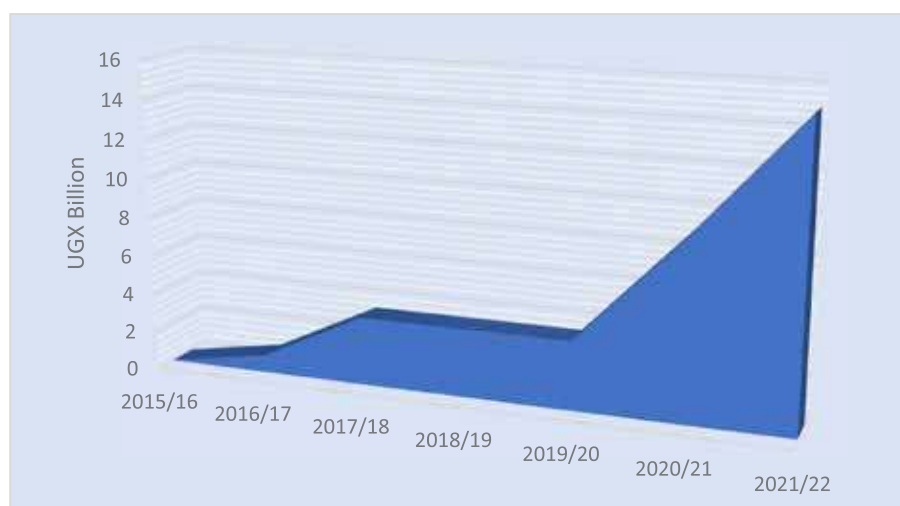
(v) Storage and warehousing. The NDP II identified limited storage capacity as one of the hindrances to effective post-harvest crop management and structured grain trade. It is estimated that Uganda's post-harvest losses range from 30 to 40 percent for grains and other staples, while losses for fresh-fruits and vegetables range between 30 to 80 percent (NPA, 2020). However, Uganda still runs short of quality and advanced storage facilities, which is reason for the continued use of traditional and backward storage norms that are responsible for rapid deterioration in the quality of agricultural produce.

Indeed, studies show that traditional postharvest infrastructure methods account for approximately 5-10 percent of losses methods (EPRC, 2018). This explains why it is essential to have a well-functioning Warehouse Receipt System (WRS) in place for the development of agriculture and agro-processing and a priority for national development in Uganda. To that effect, government has continuously enhanced funding for Uganda's WRS albeit at low levels. The funding for WRS activities expanded

Table 32: Budget allocations for trade and marketing related activities, 2015/16-2021/22

Sector	Specific Intervention Areas	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
MTTI	Uganda National Bureau of Standards	3.3	3.7	9.6	47.8	68.9	68.9	65.0
	Uganda Warehouse Receipt System	-	0.9	3.5	3.5	3.5	9.4	15.1
Min. of Local Govt.	Markets and Agric. Trade Improvements Programme (MATIP 2)	20.4	75.1	104.6	101.1	6.4	160.0	329
Total		23.7	79.5	117.7	155.9	78.8	237.9	409

Source: Author's compilation based on MoFPED database, 2022

Figure 50: Budget allocations for Uganda Warehouse Receipt System, FY 2015/16 - FY 2021/22

Source: Author's construct based on MoFPED database, 2022

from UGX 3.5 billion in FY 2020/21 to UGX 15.1 billion in FY 2021/22, accounting for 66.5 percent growth over the two periods (Figure 50).

Among others, the funding facilitated the installation of the e-Warehouse Receipt system (e-WRS) at eight facilities, and sensitisation of potential depositors (up to 5,400) by the Uganda Warehouse Receipt System Authority (UWRS) in a bid to ease accessibility to warehouse receipt services during the FY 2021/22. It should however be noted that more funding is needed if the plan to establish 10 silos and warehouses with capacities of 20,000 metric tons

and 5,000 MT, respectively, at strategic locations across the country is to be realized as stated in the NDP II.

6.2.4: Direct Funding through Specialised Credit Facilities, Programmes and Initiatives

The direct funding of Uganda's agriculture sector through specialised schemes includes funding programmes such as the Agriculture Credit Facility (ACF), funding under the Microfinance Support Centre (MSC), the Uganda Development Bank, *Emyooga*, among others. During FY2021/22, Government disbursed UGX 284.8 billion

Table 33: Budget allocations for agriculture credit and other financing schemes

Sector	Specific Intervention Areas	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Accountability	Agriculture Credit Facility	0.0	0.6	0.6	0.0	0.0	50.0	50
	Emyooga	-	-	-	-	-	100.0	100
	Agriculture Insurance Scheme	0.0	5.0	5.0	5.0	5.0	5.0	5
	Microfinance Support Centre (Agricultural Loans)	3.7	-	2.49	10.0	50.0	-	5
	Capitalisation of UDB	0.0	5.7	55.7	53.5	103.5	103.5	103.5
	Financial Sector Development (PROFIRA) - MFPED	15.2	34.8	36.9	47.2	33.9	40.2	21.3
Social Development	Youth Livelihood Programme (Agricultural Enterprises)	33.0	75.0	66.6	65.6	3.3	3.3	-
	Uganda Women's Empowerment Programme (Agricultural Enterprises)	1.0	43.0	40.1	38.7	33.0	33.0	-
Total		52.9	164.1	207.5	220.1	228.7	335.0	284.8

Source: Author's compilation based on MoFPED database, 2022

as direct credit to farmers, but this was a 15 percent reduction from UGX 335 billion allocated the previous financial year (Table 33).

The increment was a result of implementation of the Parish Development Model (PDM) financial inclusion pillar. Implementation of this pillar required that some financing that were traditionally allocated to programmes such as Youth Livelihood Fund and Uganda Women's Entrepreneurship Programme be reprioritised under the model (Table 33). Even then, several individual credit lines were not affected.

Agriculture Credit Facility. The ACF continues to be one of the key drivers for transformation under the agro-industrialisation initiative. Cumulatively, between FY 2009/2010 and 2020/2021, a total of UGX 1.01 trillion was requested by several agribusinesses and UGX 660.5 billion was extended to 1,525 applicants with 51 percent (UGX 335.2 billion) contributed by Government. In FY 2020/21, Government reviewed the terms and conditions of loans under Agricultural Credit Facility (ACF) to allow access to credit using moveable assets as collateral. With the reform, 550 individual smallholder farmers and enterprises were funded under the block allocation with alternative collateral arrangements totaling to UGX. 6.33 billion (BoU, 2022). Farmers and firms used the bulk of disbursed funds as working capital to purchase grain (37%), on-farm investments (29%), agro-processing (19%) and post-harvest management (15%).

Microfinance Support Centre services. From FY 2017/18, Government has committed UGX 267.5 billion for agro-processing and related activities through the Microfinance Support Centre (Table 33). Of this, UGX 200 billion was provided under the *Emyooga* Scheme in equal proportions in FY 2020/2021 and FY 2021/2022, while UGX 67.5 billion was provided as agriculture loans through the PFIs. In FY 2021/2022, the MSC disbursed seed capital amounting to UGX 206.6 billion to 6,651 *Emyooga* SACCOs from 147 districts. The *Emyooga* SACCOs that received funding had mobilised savings to a tune of UGX 67.1

billion. In addition, Government disbursed UGX 61.6 billion for both conventional and Islamic financing, of which 52 percent of the loans targeted agricultural and related investments.

Capitalisation of institutions and financing schemes:

During the last 3 years (FY 2019/2020-2021/2022), Government maintained the same level of recapitalisation of Uganda Development Bank (UDB) at UGX. 103.5 billion (Table 33). By 30th June 2022, the UDB also had a funding pipeline of USD 332.1 million from various development partners with the funds accessed at concessional terms. As of September 2022, UDB had approved UGX 333 billion for several enterprises as part of the Government's economic response recovery strategy. Projects in primary agriculture (83 billion), agro-processing (48 billion) and manufacturing (180 billion) were the largest beneficiaries of the approved resources, accounting for 93.4 percent of the total resources approved for the period. Government has also been disbursing annually UGX 5 billion as subsidy for the Agriculture Insurance Scheme, and disbursement under the scheme has to date accumulated to a total of UGX 30 billion.

6.2.5: Policy Options and Way Forward

The growth of agriculture and progress in agro-industrialisation require a substantial mix of investment in the core agricultural sector as well as investment in complementary sectors such as trade and infrastructure as discussed above. These complementary sectors produce significant multiplier effects that generate demand for agricultural products and create on- and off-farm employment, thus improving household incomes. As evidence of its commitment, there has been significant direct Government spending to agriculture- averaging between 3 to 4 percent of total annual Budget- and Public investments in auxiliary sectors that complement agriculture whose funding increased from about 4 percent in FY 2015/16 to around 15 percent in FY 2021/22.

Whereas Government is commended for increased

funding to agriculture in general, several issues call for attention. Among these are: limited funding for priority areas with higher multiplier effect including Uganda Warehouse Receipt System and Agriculture Insurance Scheme; delayed disbursement of approved resources to the spending entities; and communication and uptake gaps as is the case with the limited access to the MATIP markets.

Considering the above, in the ongoing implementation of the PDM and the projected growth of the agro-industrialisation programme, it proposed that Government pays closer attention to the various issues discussed in this paper with a view to addressing them expeditiously. In particular, Government should:

- i) Increase the investments in complementary/auxiliary sectors, for example increase public investment in rural infrastructure and market infrastructure.
- ii) Ensure that the current infrastructure (both transport and energy) policies and strategies are functionally aligned with the intended agricultural investments.
- iii) Workout modalities to address the disjointed efforts of its various credit and financing schemes for proper targeting and to reduce delays in disbursement of funds to spending entities.
- iv) Support close collaboration and linkages with agricultural sector institutions to guide in investment packaging and support. And,
- v) Ensure effective coordination of the different programme actors that support the agro-industrialisation programme through strengthening the monitoring and evaluation component of the programme.

References

BMAU, (2022). Private Sector Development Programme: Annual Budget Monitoring Report Financial Year 2021/22, Uganda. Accessed from [https://www.finance.go.ug/publication/semi-annual-budget-](https://www.finance.go.ug/publication/semi-annual-budget-monitoring-reports-fy-202122)

[monitoring-reports-fy-202122](https://www.finance.go.ug/publication/semi-annual-budget-monitoring-reports-fy-202122)

BMAU, (2022). Manufacturing Programme: Annual Budget Monitoring Report Financial Year 2021/22, Uganda. Accessed from <https://budget.finance.go.ug/sites/default/files/Manufacturing%20Programme%20Semi-Annual%20Monitoring%20Report%20FY2021-22.pdf>

BMAU, (2022). Agro-Industrialisation Programme: Annual Budget Monitoring Report Financial Year 2021/22, Uganda. Accessed from <https://www.finance.go.ug/sites/default/files/Publications/Agro-Industrialisation%20Programme%20Semi-Annual%20Monitoring%20Report%20FY2021-22.pdf>

BoU, (2022). Agricultural Credit Facility Progress report for 2022, Kampala-Uganda. Accessed from <https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/AgriculturalCreditFacility/ACF-REPORTS-2022/Final-Progress-Report-September-30-2022.pdf>

DAI, (2020). Uganda – Feed the future inclusive agricultural markets (IAM), Kampala-Uganda. Accessed from <https://www.dai.com/our-work/projects/uganda-inclusive-agricultural-markets-iam>

EPRC, (2018), Fostering a sustainable approach to Agro-industrialisation agenda, Makerere University, Uganda. Accessed from https://www.africaportal.org/documents/18514/FOSTERING_A_SUSTAINABLE_AGRO-INDUSTRIALISATION_AGENDA_IN_UGANDA.pdf

FAO, (2011). Financial resource flows to agriculture: A review of data on government spending. ODI and FDI, ESA working paper No. 11-19. Accessed from <https://www.fao.org/3/an108e/an108e.pdf>

MoEMD, (2013), Rural Electrification Strategy and Implementation plan 2013-2022, Kampala-Uganda. Accessed from <https://s3-eu-west-1.amazonaws.com/s3.sourceafrica.net/documents/119217/Strategy-and-Plan-2013-2022.pdf>

Ministry of Foreign Affairs of Denmark, (2021). Climate Change and Agriculture Infrastructure in Uganda,

- Kampala-Uganda. Accessed from <https://um.dk/en/-/media/websites/umen/danida/about-danida/danida-transparency/council-for-development-policy/climate-activity-uganda.ashx>
- Miriam, K., Annette K., Theresa, M., and Denis, M. (2017). Uganda Warehousing Receipt System: Improving Market Competitiveness and Service Delivery, EPRC-Uganda. Accessed from <https://ageconsearch.umn.edu/record/260019/files/137%20Uganda%20warehousing%20receipt%20system%20%20Improving%20market%20competitiveness%20and%20service%20delivery.pdf>
- MoFPED, (2022). Background to the Budget Reports for FYs 2016/17-2021/22. Accessed at <https://www.finance.go.ug/sites/default/files/Publications/Background%20to%20the%20Budget%202021.pdf>
- MoFPED, (2022). Budget Framework Papers for FY 2016/17 - FY 2021/22. Accessed at <https://budget.finance.go.ug/sites/default/files/National%20Budget%20docs/National%20Budget%20Framework%20Paper%20FY%202021-22.pdf>
- NPA, (2020) The Third National Development Plan (NDPIII) 2020/21 – 2024/25, Kampala-Uganda. Accessed at http://www.npa.go.ug/wp-content/uploads/2020/08/NDPIII-Finale_Compressed.pdf
- Peter, T., (2019). Scaling up Rural Electrification in Uganda: Innovative Technical and Financial Solutions Being Explored to Address Access Challenges, Energy and Economic Growth – Applied Research Programme. Accessed from <https://www.energyeconomicgrowth.org/sites/default/files/2019-04/Scaling%20up%20Rural%20Electrification%20in%20Uganda%20PDD10112.pdf>
- Salome, A., and Yves, S., (2022), Association between rural electrification and agricultural output: Evidence from Sub-Saharan Africa, World Development Perspectives, Vol.25., doi:100392. Accessed from <https://www.sciencedirect.com/science/article/pii/S2452292921001089>

6.3 UGANDA'S AGRO-INDUSTRIALISATION PROGRAMME AT MID TERM: PROGRESS AND PROSPECTS

Medard Kakuru¹ and Bwengye Grace²



6.3.1: Background

Agriculture is the backbone of the economy of Uganda; and contributes about 24 percent to GDP (UBoS, 2022), employs 72 percent of the population and provides first jobs to 75 percent of the youth (15 – 24 years) (Fowler and Rauschendorfer, 2019). Agriculture is also an important source of the country's foreign exchange earnings, with agro-products contributing 54 percent to export earnings (*ibid*). In addition, agriculture-based industries (agro-industries) dominate the manufacturing sector and account for about 60 percent of its total output (Fowler and Rauschendorfer, 2019). Agriculture also provides direct and indirect linkages to other sectors of the economy, and provides raw material inputs to the industrial sector.

Although agriculture is vital to the economy and livelihood

improvement in Uganda and the vast majority of the people depend on it to a great extent, the sector is still marred with a myriad of challenges, including: (i) low production and productivity; (ii) poor storage infrastructure; (iii) low value addition; (iv) limited access to financial services and critical inputs; (v) poor market access and low competitiveness of products in domestic, regional and international markets; and (vi) poor coordination and inefficient institutions for planning and implementation of agro-industrialisation initiatives (NPA, 2021).

In order to address the constraints limiting agricultural transformation in the country, the Government of Uganda (GoU) introduced the agro-industrialisation (AGI) programme under the National Development Plan III (NDP3) (2020/21–2024/25) with the primary goal of boosting the commercialisation and competitiveness of the country's agricultural production and agro-processing. To ensure effective implementation, the AGI Programme Implementation Action Plan (PIAP) set

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as sub-programmes five focal areas of implementation, namely: agricultural financing; agricultural production and productivity; storage, agro-processing and value addition; market access and competitiveness; and institutional strengthening and coordination. In this article a review of the progress in implementation of the five sub-programmes of the AGI is undertaken.

6.3.2: Progress in Implementation of the Agro-industrialisation Programme at Midterm

With its launch in FY 2020/21, implementation of NPDP III under which the AGI programme is embedded is reaching mid-point stage. This is an appropriate point to evaluate progress made in implementation of the five AGI sub-programmes in order to draw lessons, make short-term adjustments and plan for long-term review to ensure success and sustained progress towards set objectives. As reviewed below, there have been progress and challenges in implementation of the five set AGI activities.

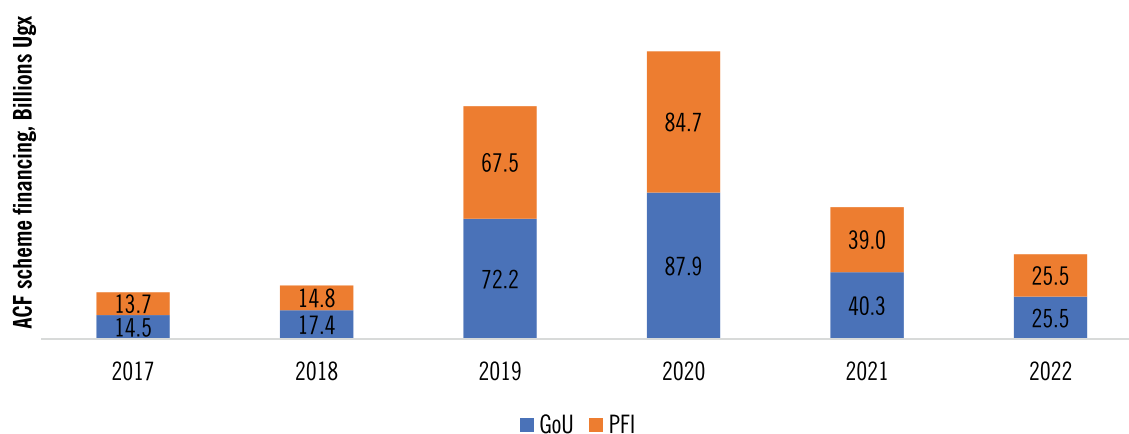
(i) **Agricultural financing.** The main objective of the AGI agricultural financing sub-programme is to enhance both accessibility and affordability of finance for the agricultural sector players so as boost their investment activities. Beyond availing financing for agriculture, the specific strategic intervention is to avail concessional long-term financing for agricultural infrastructure and capital investments.

Over the period, there has been notable increase in agricultural financing, with the share of agricultural financing to total financing increasing from 2 percent in 2017/2018 (baseline year) to 3 percent in 2020/21 and 12.2 percent in 2021/22 (NPA, 2022). This was mainly achieved through the Government of Uganda (GoU)'s increased capitalisation of the Agricultural Credit Facility (ACF).

The ACF is a risk-sharing facility between the Government and participating financial institutions (PFIs), including commercial banks and microfinance institution, that provides affordable credit to small, medium and large enterprises engaged in various agricultural value chain activities. Generally, there was increase in disbursement of ACF funds by both GoU and PFIs (Figure 51), with the biggest disbursement in the first year of NDP3 (2020). Of the increase, the largest share of ACF financed working capital for grain trade (37 percent) and on-farm activities (29 percent), while agro-processing/value addition and post-harvest handling receive 19 percent and 15 percent respectively.

The most recent ACF progress report (September 30, 2022) shows that the disbursement of funds by both GoU and PFIs to support agriculture financing has increased in the NDPIII period. Over time, the facility introduced the "Block Allocation" product to allow smallholder farmers to benefit from financing for agricultural inputs and farm

Figure 51: Annual ACF disbursements to during AGI implementation period



Source. ACF Progress Report, September 2022

expansion without the condition of the conventional collateral required by banks. Consequently, between the last quarter FY 2021/22 (April – June) and the first quarter of FY 2022/23 (July – September) alone, loans disbursed to smallholder farmers under “Block Allocation” increased by UGX 1.66 billion (184 percent).

Despite the notable progress in performance of the ACF, low absorption of funds and unequal distribution of ACF beneficiaries across regions and gender are major implementation challenges. The Semi-Annual Budget Monitoring Report by the MoFPED for FY 2021/22 shows that only 19 percent of the funds allocated to agro-processing were utilised (MoFPED, 2022).; while on distribution, the report shows that 57 percent of ACF beneficiaries were from the Central Region and only 4 percent were from either Eastern or Northern Regions. Also, even with a block allocation funding, only 10 percent of beneficiaries of the ACF were women.

The steep regional disparity in ACF funding is largely due to the small number of ACF implementing financial institutions and low availability of the scheme in the banking sector within the Eastern and Northern Regions; while the low percentage of women that received ACF funding is due to the very small number of women owning ACF funded initiatives such as commercial farming and value addition.

(ii) Agricultural production and productivity.

The 2022 Mid Term Review (MTR) NPA revealed that agriculture production growth stagnated at 4.3 percent during the past two years mainly attributed to the slow implementation of activities earmarked to enhance agricultural production and productivity (NPA, 2022). Interventions envisaged under this sub-programme include, among others, strengthening agricultural research and technology use, enhancing agricultural input marketing and distribution systems; increasing access and use of agricultural machinery and digital technologies; effective management of pests, vectors and diseases; and improving skills, competencies and productivity of

the agricultural labour force.

To strengthen agricultural research and technology use, the GoU, through National Animal Genetic Resources Centre and Data Bank (NAGRC & DB), procured five specialised mobile Assisted Reproductive Technologies (ARTs); established two new Liquid Nitrogen plants in Mbarara and Buikwe districts; and set up four satellite Artificial Insemination (AI) centers and also secured 35 motorcycles modified for the AI equipment to boost community livestock breeding outreach. Related to these, GoU recruited four agricultural research scientists and 10 animal breeding scientists and trained 3,601 animal breeding scientists in basic principles of ARTs.

Through the National Agricultural Research Organisation (NARO), Government also established an Aquaculture Diagnostic Laboratory at Kajjansi, a Multipurpose Laboratory at Mukono-Kituza NARO Centre to support coffee and cocoa research and a seed sorting plant at NARO centre in Mbarara. It also equipped a livestock breeding laboratory at Namulonge and constructed/rehabilitated five modern screen houses for Hass avocado breeding research.

On strengthening the agricultural extension system, the Government targeted to recruit 1,000 new extension workers but none was recruited due to non-provision in the Budget for their wage bill. Nonetheless, small-scale recruitment has been done by some agencies. Notably, Uganda Coffee Development Authority (UCDA) recruited and equipped 16 coffee extension workers; MAAIF in partnership with non-state actors (MercyCorps, Sasakawa Africa Association; World Food Programme, Food and Agriculture Organisation) trained 1,000 public and private extension workers on aspects of the agriculture value chain; and Cotton Development Organisation (CDO) trained 192 public extension workers on cotton production techniques.

In a bid to strengthen agricultural input markets and distribution systems, Government accredited 505

agricultural input producers and dealers, some of whom (168 input dealers) are to supply inputs to the electronic-voucher (e-voucher) programme³. The e-voucher system itself was scaled-up and, by the end of FY 2020/21, a total of 208,827 farmers had accessed inputs through the e-Voucher input management system. In addition, Government recruited 10 new veterinary and 32 plant inspectors to increase the capacity for input quality assurance.

To increase access and use of water for production, Government completed seven irrigation schemes in seven districts⁴; constructed 48 solar powered small-scale irrigation schemes in 40 districts; and procured 44 sets of complete solar powered water-pumping irrigation systems for 41 districts. Additional 79 micro and small-scale irrigation demonstrations were constructed to increase community awareness and to train farmers on irrigated agriculture. These interventions increased the area under formal irrigation by 4,865 hectares, and many additional irrigation projects are in the design stage. In respect to livestock production, out of 35 planned community valley tanks for livestock watering, 36 were constructed in 29 districts. The completed valley tanks increased water storage capacity by 517 million litres and will serve an estimated 69,763 heads of livestock.

Government also initiated measures to increase access to promote agricultural mechanisation. Of note, three Zonal Agricultural Mechanisation Centres were established to skill and train irrigation equipment mechanics, operators, engineers, technicians and farmers. It also procured and distributed 320 tractors and matching implements to 119 districts and piloted the provision of tractor hire services. On a smaller scale, NARO distributed mobile motorized commercial maize shellers to three youth farmer groups in Buyende, Kamuli and Pallisa districts and 15 hand-cranked maize shellers in Kamuli and Buyende districts; 9 units of animal draft power and conservation agriculture planters in Adjumani district; and 24 units of ox-carts in Adjumani, Amuru, and Nwoya districts. During the MTR, however, it was noted that mechanisation centres were

established without deploying irrigation technologists, a factor that curtails the adoption of mechanised agriculture given that irrigation is a new concept among many farmers.

To strengthen pest, disease and vector management and control and increase access to and use of digital technologies, a National Livestock Identification and Traceability System (LITS) has been designed to facilitate identification and tracking of livestock along the value chain. Government with support of the UN Food and Agriculture Organisation (FAO) rolled out the Event Mobile Application (EMA-I) in more than 100 districts to facilitate real time disease reporting, which in turn enables faster response to outbreaks. Government also established 28 mobile plant and animal health clinics for disease diagnosis and control; purchased and distribution of 3.7 million animal disease vaccines for Foot and Mouth Disease (FMD) and Contagious Bovine Pleuropneumonia (CBPP), rabies Peste des petits ruminants (PPR); and trained 1,248 DLG staff on integrated pest management. Government also supported the private sector (Alfasan Uganda Ltd and Brentec Vaccines Ltd) to set up local veterinary manufacturing plants.

With respect to strengthening farmer organisations (FOs) and cooperatives, GoU, through the Dairy Development Authority (DDA), registered 6 goat farmer groups and formed 14 dairy farmers' cooperatives and 10 breeders' associations. A total of 25,209 farmer groups received training, including 14 dairy cooperatives; 59 groups in the beef value chain; 70 coffee FOs; 188 youth groups in the cotton value chain; 8 groups of tree nursery operators; and 362 rural producer organisations (RPOs). Despite challenges, these are significant accomplishments and progress.

(iii) Storage, agro-processing and value addition. Strategic interventions under this component include establishing post-harvest handling, storage and processing infrastructure up to Subcounty level; and establishing functional agro-industrial parks. From the MTR, agro-processing and value addition are on track

although the pace of progress is slow.

Through its matching grant facility, 167 storage facilities (24 stores for beans, 17 for cassava, 65 for coffee, 34 for maize and 24 for rice) with a total capacity of 42,714 MT were constructed across the country. Consequently, storage capacity increased to 792,714 metric tons in 2020/21 (MoFPED, 2022), which is 5.6 percent above the NDP3 target of 750,000 metric tons. Government also supported FOs with assorted processing facilities, including 58 coffee hullers, 39 maize mills, 27 rice mills, 15 cassava mills, 7 beans sorters, 64 moisture meters and 27 driers. Other related interventions include construction of 11 community fish drying racks at major landing sites; procurement of 20 milk cooling equipment and 441 milk handling equipment. Training sessions were also held on post-harvest handling, value addition and quality control for 5,244 stakeholders in the dairy sector, 59 beef and meat groups, 300 maize value chain actors and 200 cocoa value chain actors.

As a result of these interventions, post-harvest losses of priority commodities reduced by 18.6 percent in FY 2021/22; value addition grew by 3.5 percent in the same period; and the export value of priority agricultural commodities⁵ increased by 2.4 percent in FY 2020/21. Notwithstanding the progress, implementation challenges were encountered, including low electricity coverage that limited some interventions like the cassava processing facility that had to rely on diesel generator. Also, agro-processing/value addition and post-harvest management activities received much lower public credit financing of 19 percent and 15 percent of total credit, respectively, compared to working capital for grain trade that took 37 percent of credit and to on-farm activities that received 29 percent of credit.

(iv) Market access and competitiveness in domestic and international markets. Limited access of Uganda to external markets and its low competitiveness is partly due to weak adherence to quality and safety standards and grades, and low output capacities

that cannot sustain market opportunities. As such, interventions have been made to increase competitiveness, including strengthening enforcement and adherence to product quality requirements; digitalising acquisition and distribution of agricultural market information; and improving agricultural market infrastructure in rural and urban areas.

To address adherence to product quality requirements, 30,069 out of target of 40,000 Sanitary and Phytosanitary (SPS) certificates for crop consignments (fresh fruits and vegetables, coffee, vanilla, cocoa, cereals, grains and pulses) for export were issued as a means of enforcing compliance with food safety standards. Also, 224 flower farms were inspected by MAAIF and Uganda Flower Exporters Association to ensure that the farms are complying to standards, and Government procured 52 meat inspection kits for districts to improve inspection and certification of meat products.

In addition, farmers, inspectors and manufacturers were trained in the best SPS management practices, with 25 Phytosanitary Inspectors and 375 horticultural farmers and 75 exporters trained. To expand the export market, Uganda entered into a bilateral agreement with Zambia in FY2021/22 that enabled shipment of about 50 tons of milk to Zambia by the time of MTR. To underpin production and marketing, Government also opened/improved 25 farm access roads in the various districts⁶.

(v) Institutional strengthening and coordination.

The sub programmes of the AGI Programme are spread across several MDAs and some private sector players which are poorly coordinated. The aim of this sub-program is to put in place a coordination mechanism of the programme implementation actors both in MDAs and private sector. Among other things, the government planned to establish Public-Private Partnership (PPPs) models on which the AGI can run. Performance in this sub-programme was not good largely due to the slow transition to the programme approach. Consequently, budget allocations are still based on the sectors.

Among the notable achievements in programme implementation, Government entered into 17 partnerships with the private sector, including five fish processing enterprises to promote safe fish smoking; 10 nucleus farmers to demonstrate and train targeted smallholder beef farmers; and with Uganda Flower Exporters Association to partner in flower farm inspection. And in respect to coordination, four platforms- the Programme Leadership Committee, the Programme Working Group (PWG), the Programme Technical Working Group (PTWG) and the Programme Secretariat (PS)- were to be established, but by close of FY 2020/21 only three (PWG, PTWG, PS) were functional. The main implementation challenge is the slow transition to the programme approach has that has led to a protracted situation where most of the challenges previously experienced continue to persist in NDP3, particularly duplication of activities and working in silos. These require urgent attention.

6.3.5: Policy Recommendations

In implementing the AGI initiative for agricultural development, some sub-programmes are being implemented as per set timelines while others continue to lag behind. Under the agricultural financing sub-programme, performance is on track, with the gradual increase in the share of agricultural financing by 10 percentage points. This has been possible because of increasing capitalisation of the ACF, UDB, UDC and the MSCL. Nonetheless, capitalisation is still low relative to the high demand for agricultural financing as the PFIs still offer their loan products at far higher interests than offered by Government. In addition, most of the smallholder farmers belong to Tier IV institutions (such as SACCOS) that can only access the public credit scheme through MSCL, hence limiting financing options for smallholder farmers.

In respect to the agricultural production and productivity sub-programme, progress in implementation is very slow, resulting in agriculture production growth stagnating at 4.3 percent. Product volume of priority agricultural

commodities has also increased by six percent during the two years of implementation instead of the projected 10.6 percent; most irrigation projects are still in the design stage; and only four out of 18 mechanisation centres are under construction. Therefore, notwithstanding progress made, persistence of challenges in AGI implementation- including low funding for farmer awareness and training; supporting post-harvest handling, agro-processing and value addition; and tackling emergent issues- are programme impediments that must be urgently handled. Considering the above, five key policy action points outlined below are recommended for urgent consideration.

- a. Government through the MoFPED should prioritise increasing capitalisation of the ACF, UDB, UDC and the MSCL funding schemes.
- b. Relatedly, the ACF memorandum of Agreement, 2018 needs to be further amended to bring on board tier IV savings and credit institutions to expand credit space for smallholder farmers.
- c. The MAAIF should consider recruiting and deploying irrigation engineers at sub-counties to enhance the adoption of irrigation technologies by smallholder farmers.
- d. Rural electrification needs to be expedited fast to enhance value addition and agro-processing.
- e. There is a need to continuously build the capacity of staff in MDAs and districts to understand and implement the programme approach.

Implemented urgently and effectively, this will go a long way in ensuring success of the AGI programme and attainment of considerable progress in the transformation of Uganda's agricultural sector.

References

- Fowler, M. and Rauschendorfer, (2019). Agro-industrialisation in Uganda. Current status, future prospects and possible solutions to pressing challenges. Working Paper F-IH-UGA-006-2. International Growth Centre.
- MoFPED, (2022). Agro-industrialisation Programme.

Semi-Annual Budget Monitoring Report Financial Year 2021/22. Ministry of Finance Planning and Economic Development. Accessed from <https://www.finance.go.ug/publication/semi-annual-budget-monitoring-reports-fy-202122>

NPA, (2021). *Third National Development Plan 2020/21 – 2024/25*. Accessed from http://www.npa.go.ug/wp-content/uploads/2020/08/NDPIII-Finale_Compressed.pdf

NPA, (2022). Mid-Term Review of the Third National Development Plan (NDPIII) (2020/2021 - 2024/2025). National Planning Authority-unpublished

UBoS, (2021). Uganda National Household Survey 2019/2020. Uganda Bureau of Statistics Kampala, Uganda; UBOS. Accessed from https://www.ubos.org/wp-content/uploads/publications/09_2021Uganda-National-Survey-Report-2019-2020.pdf

UBOS, (2022). *2021 Statistical Abstract*. Uganda Bureau of Statistics. Accessed from https://www.bou.or.ug/bou/bouwebsite/bouwebsitecontent/publications/Statistical_Abstract/2021/2021-Bank-of-Uganda-Statistical-Abstract.pdf

World Bank, (2019). Closing the potential performance divide in Ugandan agriculture. Washington, D.C: The World Bank. Accessed from <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/996921529090717586/Closing-the-potential-performance-divide-in-Ugandan-agriculture>.

Endnotes

- 3 An electronic voucher programme is a system through which government is administering input subsidies to beneficiary farmers.
- 4 Kween, Kasese, Kabarole, Oyam, Lira, Butaleja and Pakwach districts
- 5 Fish and its products, tea, Vegetable oils, coffee, sugar, Hides & Skins
- 6 Sironko, Kayunga, Kiruhura, Wakiso, Kumi, Nakasongola, Mukono, Mpigi, Buvuma, Kalangala, Abim, Mayuge, Jinja, Nwoya, Isingiro, Serere, Bulambuli, Sembabule, Kiruhura, Kazo, Rwampara, Lyantonde, Mbarara, Apac, and Dokolo.

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