



AGRICULTURAL FINANCE YEAR BOOK

2021

**Agricultural Finance: Coping
with Economic Recovery Amidst a
COVID-19 Environment**





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Plot 873, Kyaggwe Block 113
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+256 785 591 959 / +256 706 766 666
apled725@gmail.com

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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).

Any enquiries can be addressed in writing to the Executive Director on the following address:

Economic Policy Research Centre

Plot 51, Pool Road, Makerere University Campus
P.O. Box 7841, Kampala, Uganda
Tel: +256-414-541023/4
Fax: +256-414-541022
Email: eprc@eprcug.org
Web: www.eprcug.org

TABLE OF CONTENTS

	Acknowledgments	iv
	Foreword	v
	List of abbreviations and acronyms	vi
	CHAPTER 1: POLICY	1
	1.1 Will existing financing mechanisms deliver Uganda's Agro-industrialisation agenda?	2
	1.2 Stimulating agribusiness recovery from the COVID-19 pandemic in Uganda: A review of fiscal support towards public sector investment in agriculture.	12
	1.3 Will the establishment of a meat regulatory authority improve financing for Uganda's beef sector? Lessons from Botswana and Namibia	21
	CHAPTER 2: FINANCIAL INSTITUTIONS OPERATIONS	32
	2.1 Will the leasing financial product boost agricultural finance in Uganda?	33
	2.2 How has technical assistance offered in the PROFIRA project affected the governance and growth performance of SACCOs in Uganda?	38
	CHAPTER 3: INNOVATION AND DIGITALISATION	45
	3.1 The CURAD model for financing start-up agribusiness entrepreneurs in Uganda	46
	3.2 Digitalising the coffee value chain in Uganda: A case study of Kyagalanyi Coffee Limited	53
	3.3 Minimising the risks associated with digitising agriculture finance in Uganda	59
	CHAPTER 4: FINANCING OF AGRICULTURAL VALUE CHAINS	67
	4.1 Financing Agro-processing in northern Uganda: Lessons from UNCDF's support to agricultural revitalisation and transformation facility	68
	4.2 Ensuring regional markets for Uganda's maize exports	76
	4.3 Can Nigeria's block farm model be an alternative to financing value addition of Uganda's cassava?	81
	CHAPTER 5. FINANCING COVID-19 RESPONSE AND RESILIENCE BUILDING	91
	5.1 Building resilience against future glut and price crush of agricultural commodities: The case for a national food reserve	92
	5.2 Extending input subsidies to boost COVID-19 resilience: A note on the agribusiness initiative's COVID-19 subsidy response plan	101
	5.3 Ensuring resilience in the supply of agricultural finance amidst the COVID-19 pandemic: Lessons from India's Amul Integrated Cooperative model	110
	5.4 Facilitating agribusinesses cross-border trade during COVID-19 disruptions: A case of REACTS-II project	115

LIST OF FIGURES

Figure 1: Agriculture sector budget allocation (2014/15 to 2020/21)	3
Figure 2: NAADS allocation in the national budget (2015/16 to 2019/20)	4
Figure 3: Total ACF disbursements (2009/10 to 2020/21)	5
Figure 4: Share of ACF portfolio by activity financed, % (end September 2020)	5
Figure 5: Gross Uganda Development Bank loans by sector (2020)	7
Figure 6: Sectoral shares of private sector credit (December 2020)	8
Figure 7: Official development assistance for agriculture sector (USD million), 2015-2019	8
Figure 8: Budget allocations to the agricultural sector (2015/16 to 2019/20)	13
Figure 9: Total tax revenue and agricultural tax revenue (UGX Billions)	14
Figure 10: Trend of Uganda's meat export (2016-2020)	23
Figure 11: Namibia's meat sector institutional structure	27
Figure 12: Uganda's meat sector institutional structure juxtaposed onto Namibia's structure	28
Figure 13: Agricultural lease disbursement in Uganda	34
Figure 14: SACCO categorisation based on prevalence of risk factors	40
Figure 15: Trends in membership (2016-2019)	42
Figure 16: Trends in share capital, saving and loans (2016-2019)	42
Figure 17: Number of new start-up businesses incubated (2014-2020)	49
Figure 18: Financial support to start-ups by CURAD (2014 to 2020), (%)	49
Figure 19: Annual income generated by start-ups (2014-2020), (million UGX)	50
Figure 20: Jobs created by start-up enterprises (2014-2020)	50
Figure 21: The digitalisation sequence	55
Figure 22: Annual cybercrime cases reported to police (2017-2019)	60
Figure 23: Prosecution of cybercrime in the courts of law (2017 to 2019), (%)	61
Figure 24: The conduct of the START facility	69
Figure 25: Structure of the START facility	70
Figure 26: Progression of Applications Received	71
Figure 27: Status of fully developed projects, (%)	72
Figure 28: Pipeline status as of April 2021, (%)	72
Figure 29: Uganda's maize export destination (2015-2020), Tonnes	77
Figure 30: The IDH block farming model	84
Figure 31: Core processes of the cassava value chain in Uganda	86
Figure 32: The institutional structure of a typical grain reserve	95
Figure 33: Trend in Uganda's fertiliser imports (2017 to 2019)	102
Figure 34: Structure of the aBi's COVID-19 response model	103
Figure 35: Input distribution	105
Figure 36: Yield performance	106
Figure 37: The REACTS project business model	117
Figure 38: Comparison of volumes traded by Bigando ACE	118

LIST OF TABLES

Table 1: Summary of Uganda's beef production systems	23
Table 2: Terms and conditions for agribusiness leasing product	35
Table 3: Money lost and recovered in cybercrimes (2017-2019), (UGX millions)	61
Table 4: Trends in Uganda's exports in destination markets, by value (USD per tonne)	78
Table 5: CVC in Uganda compared to Nigeria's BFM	87
Table 6: Farmer contribution to inputs under the aBi's COVID-19 response plan	104
Table 7: Average monthly growth rates in credit and deposits (%)	110

LIST OF BOXES

Box 1: A case story of the NEFF	63
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FOREWORD

The 2021 Agricultural Finance Yearbook, which is the eleventh edition in the series offers an in-depth analysis of the Agricultural financing landscape in Uganda. The 2021 publication is made up of five chapters that highlight key processes, achievements, challenges and gaps in Policy, Financial Institutions Operations, Innovations and Digitalisation, Financing of Agricultural Value Chains as well as Financing COVID-19 Response and Resilience Building in Uganda. Below are the key messages.

Government has over the past decades implemented a number of programmes, fiscal and infrastructure incentives, commodity specific agencies and interventions aimed at financing the agriculture sector. These include the Plan for Modernisation of Agriculture (PMA), Agricultural Credit Facility (ACF), Operation Wealth Creation (OWC), agricultural tax exemptions, the Youth Livelihood Fund, the Youth Venture Capital Fund, Microfinance Support Centre Ltd, Emyooga, Agriculture cluster development project, Agricultural Insurance to de-risk the agricultural sector and more recently the Parish Development Model (PDM), among others. Government is also currently developing the National Agricultural Finance Policy to, among others, improve coordination, timely provision of appropriate agriculture finance products and further streamline agricultural financing in Uganda.

However, gaps in enabling policies and legal framework continue to hinder improved access to financial services. Key areas lacking the necessary legal framework include cyber security, contract farming, leasing, equity and venture capital financing as well as provisions for integrating agribusiness incubation into the national agricultural extension policy and system. Once done, the financial and capacity gaps in fighting cybercrime, provision of suitable agricultural financial products as well as in commercialising and digitalising agribusiness ideas can be addressed, and fiscal incentives to spur commercialisation of small agribusinesses, instituted.

In addition, Government has established a number of credit and capacity building interventions, but these still fall short of addressing the structural bottlenecks in smallholders and agri-SMEs financing. Government is going to review these interventions, and focus them on improving the capacity of agribusinesses to keep records; and preparing and presenting bankable projects. On the supply side, government's interventions are going to directly address the financing conditions (remoteness, collateral, high interest rates and short loan tenure) that continue to lock agribusinesses out of formal financing. Furthermore, emergency interventions and subsidies (as done in response to COVID-19), shall complement (not distort) existing interventions.

Finally, the 2021 Yearbook also highlights some agricultural production models that make financing smallholders and agricultural SMEs less risky and more rewarding to financial institutions. These models (i.e. Uganda's CURAD Agribusiness Incubation and Area Cooperative Enterprise models, Nigeria's Block Farm Model, and India's Amul Integrated Cooperative model); increase productivity and profitability; provide smallholders with direct links with industries; establish accountable input distribution channels; improve economies of scale through input-output aggregation, provide timely and accurate business and market information; improve contract negotiations and implementation; reduce transactions costs; improve compliance with quality standards; and provide multiple levels of credit guarantees. Government will ensure that some aspects of these models are adopted to deepen agricultural financing within Uganda's agricultural value chains

.....
Matia Kasaija (MP)

Minister of Finance, Planning and Economic Development.

LIST OF ABBREVIATIONS AND ACRONYMS

aBi	Agribusiness initiative
ACE	Area Cooperative Enterprise
ACET	African Centre for Economic Transformation
ACF	Agricultural Credit Facility
ACODE	Advocates Coalition for Development and Environment
AfDB	African Development Bank
AFYB	Agricultural Finance Year Book
AGI	Agro industrialisation
AGM	Annual General Meeting
AGRA	Alliance for a Green Revolution in Africa
AI	Artificial Insemination
ASSP	Agricultural Sector Strategic Plan
APAK	Agro-Processor Association of Kenya
AU	African Union
AVCA	Agricultural Value Chain Actors
B2B	Business to Business
BDS	Business Development Service
BFM	Block Farming Model
BIP	Beef Investment Plan
BMAC	Budget Monitoring and Accountability Unit
BMC	Botswana Meat Commission
BOU	Bank of Uganda
CAADP	Comprehensive Africa Agricultural Development Programme
CASA	Commercial Agriculture for Smallholder and Agribusinesses
CB	Capacity Building
CERTs	Certified Emergency Response Team
CGAP	Consultative Group to Assist the Poorest
CI	Credit Institution
COVID-19	Corona Virus Disease 2019
CSCG	Community Saving and Credit Group
CURAD	Consortium for enhancing Responsiveness to Agribusiness Development Limited
CVC	Cassava Value Chain
DAR	Directorate of Animal Resources
DANIDA	Danish International Development Agency
DCIC	Department of Crop Inspection and Certification

DCZ	Disease Control Zone
DCU	District Cooperative Union
DFI	Development Finance Institution
DINU	Development Initiative for Northern Uganda
EAC	East African Community
EPRC	Economic Policy Research Centre
EU	European Union
FAO	Food and Agricultural Organisation of the United Nations
FAOSTAT	Food and Agriculture Organisation Statistics
FARA	Forum for Agricultural Research in Africa
FMD	Foot and Mouth Disease
FSDU	Financial Sector Deepening Uganda
FRA	Food Reserve Agency
FSP	Financial Service Provider
FY	Financial Year
GCMMF	Gujarat Cooperative Milk Marketing Federation
GDP	Gross Domestic Product
GIZ	German International Cooperation
GoU	Government of Uganda
HQCF	High Quality Cassava Flour
IFAD	International Fund for Agricultural Development
ILRI	International Livestock Research Institute
ITC	International Trade Centre
KABUTA	Kampala Butchers and Traders Association
KCL	Kyagalanyi Coffee Limited
LoG	Local Government
LIDeSA	Livestock Development Strategy for Africa
LITS	Livestock Identification and Traceability System
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
MAWF	Ministry of Agriculture Water and Forestry of Namibia
MBN	Meat Board of Namibia
MDAs	Ministries Departments and Agencies
MDI	Microfinance Deposit-Taking Institution
MESSP	Meat Export Support Services Project
MFI	Microfinance Institution
MMA	Mobile Money Agent
MOBIP	Market-Oriented Beef Industry Project
MoFPED	Ministry of Finance Planning and Economic Development

MNO	Mobile Network Operator
MSCL	Microfinance Support Centre Limited
MT	Metric Tonne
MTIC	Ministry of Trade Industry and Cooperatives
MTN	Mobile Telephone Network
MTR	Medium Term Review
NAADS	National Agricultural Advisory Services
NAGRC &DB	National Agricultural Genetic Resource Centre and Gene Databank
NARO	National Agricultural Research Organisation
NDP	National Development Plan
NEALCO	North and Eastern Africa Livestock Council
NEDS	National Export Development Strategy
NEFF	Nigeria Electronic Fraud Forum
NePEU	Network of Producers and Exporters Uganda Ltd
NIP	National Indicative Plans
NISP	National Information Security Policy
NITA (U)	National Information Technology Agency Uganda
NPA	National Planning Authority
NSFR	National Strategic Food Reserve
NSFRA	National Strategic Food Reserve Agency
NUCAFE	National Union of Coffee Agribusinesses and Farm Enterprises
ODA	Official Development Assistance
ODPP	Office of the Director of Public Prosecution
OECD	Organisation for Economic Cooperation and Development
OPM	Office of the Prime Minister
OWC	Operation Wealth Creation
PAR	Portfolio at Risk
PAYE	Pay As You Earn
PBA	Programme Based Approach
PDM	Parish Development Model
PFIs	Participating Financial Institutions
PIAP	Programme Improvement and Accountability Plan
PPR	Pestes de Petits Ruminants
PROFIRA	Project for Financial Inclusion in Rural Areas
PSFU	Private Sector Foundation Uganda
REACT II	Regional East Africa Community Trade in Staples (II)
RPO	Rural Producer Organisation
SACCO(s)	Savings and Credit Cooperative(s)

SADC	Southern Africa Development Cooperation
SBRF	Small Business Recovery Fund
SDGs	Sustainable Development Goals
SDM	Service Delivery Model
SMEs	Small and Medium Enterprises
SP	Service Provider
SRP	Subsidy Response Plan
START	Support to Agricultural Revitalisation and Transformation
TA	Technical Assistance
UAIS	Uganda Agricultural Insurance Scheme
UBoS	Uganda Bureau of Statistics
UCCK	Uganda Cooperative College Kigumba
UCDA	Uganda Coffee Development Authority
UCTTA	Uganda Cattle Traders and Transporters Association
UDBL	Uganda Development Bank Limited
UGACOF	A coffee processing and exporting company based in Uganda
UGX	Uganda Shillings
UMEC	Uganda Meat Export Company
UMEDP	Uganda Meat Export Development Project
UMPCU	Uganda Meat Producers Cooperative Union
UNADA	Uganda National Agro-input Dealers Association
UNBS	Uganda National Bureau of Standards
UNCDF	United Nations Capital Development Fund
UNCOMTRADE	United Nations repository for international trade statistics
UNECA	United Nations Economic Commission for Africa
UNICEF	United Nations Children's Education Fund
URA	Uganda Revenue Authority
URSB	Uganda Registration Services Bureau
USAID	United States Agency for International Development
USD	United States Dollar
USSIA	Uganda Small Scale Industries Association
VAT	Value Added Tax
VSLA	Village Savings and Loan Association
WFP	World Food Programme





CHAPTER POLICY

1.1 WILL EXISTING FINANCING MECHANISMS DELIVER UGANDA'S AGRO-INDUSTRIALISATION AGENDA?

Bob Twinomugisha¹



1.1.1 Background

Agriculture is an important sector in Uganda's economy. In 2019/20, the sector accounted for 72 percent of the total employment. The sector contributed 24 percent of Gross Domestic Product (GDP) during the same period (UBoS 2020). The sector is also the basis for much of the industrial activity in the country since most industries are agro-based. Being the largest employer, most women (83%) are employed in agriculture as primary producers (*ibid*). Agriculture also provides direct and indirect linkages with other sectors of the economy, supplying food for workers in services and industry, exporting products, and generating employment opportunities for many people.

Given the dominance of agriculture as a source of livelihood, Agro-industrialisation (AGI) offers an excellent opportunity for Uganda's long-term aspiration of transitioning into a modern industrial economy. Uganda's Vision 2040 emphasises the establishment of economic lifeline industries, including agro-based industries, to drive agriculture productivity (NPA 2020). AGI presents an avenue for promoting inclusive and equitable growth.

It provides an opportunity to add value to agricultural raw materials to encourage expansion of export of high-value products. AGI also offers an opportunity for import replacement. It provides an opportunity to address the high post-harvest losses, can stabilise prices and increase household incomes. AGI occupies an important place in the agricultural value chain, creating backwards and forward linkages between the farm and the market. Agro-industries increase demand for raw agricultural commodities and stimulate increased production/productivity through use of improved inputs, increased agricultural research and reduced post-harvest losses (EPRC, 2018).

Despite being the key sub-sector for economic structural transformation, AGI is not sufficiently financed. According to Bank of Uganda (BoU) statistics 2021, Agro-processing and marketing account for only 12 percent and 7 percent of private-sector credit, respectively. The AfDB (2009) identifies inadequate financial resources as one of the core constraints to agro-industrial development in Uganda. A highly constrained financing environment limits innovations, high-tech interventions, and industrial expansion, all necessary ingredients for

¹ Economist, Uganda Development Bank (btwinomugisha@udbl.co.ug)

AGI. For Uganda, even the available financing sources have not been supportive of sustainable agro-industrial development. For example, 83 and 78 percent of firms use retained earnings to finance operations and fixed assets acquisition, respectively (EPRC, 2018). Such financing structure constrains firms' ability to expand from small to large scale operations.

Transformative financing options, such as leasing, equity financing, venture capital, invoice financing or factoring, crowd funding and market place lending are inadequately utilised by agro-manufacturing industries. In addition, even the proportion of borrowing by small-scale industries is very low, standing at only 6.3 percent, compared to 44.1 percent and 11.1 percent for those in Kenya and Tanzania, respectively (*ibid*). This is partly explained by high interest rates (20 percent and above), perceived low creditworthiness of firms, complex loan application procedures, and high traditional collateral requirements.

This article explores the existing financing landscape for Uganda's AGI agenda and proposes policy and strategic financing actions that could foster its growth.

1.1.2 Status of the financing sources for the agriculture sector

Currently, the agriculture sector benefits from four primary financing modalities; public budget support; state

agriculture financing programmes, development partner financing; and private sector financing.

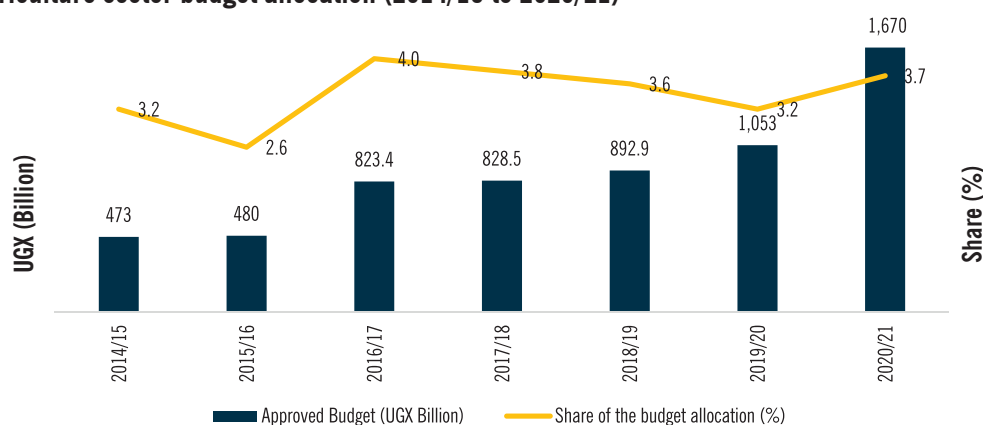
i) Budget support to agriculture

Government expenditure on the agriculture sector is one of the instruments that promote the growth of the sector and in turn, growth of AGI. The national budget allocation to agriculture has increased gradually over the last five years (Figure 1).

However, the share of the national budget allocated to the agriculture sector has not exceeded 4 percent over the last seven years. At this level of financing, Uganda continues to fall short of the minimum (10 percent of national budget) it committed to in the Maputo declaration of 2003 and the Comprehensive Africa Agriculture Development Programme (CAADP).-

While Government's focus has been on increasing budget allocations to infrastructure development, mainly roads and energy projects, which are also vital to the sector, inadequate direct financing threatens the sector's ability to produce sufficient raw materials and solve binding constraints to spur AGI. These levels of spending are grossly insufficient for financing the institutional and physical investments required to transform the agricultural sector.

Figure 1: Agriculture sector budget allocation (2014/15 to 2020/21)



Source: Author's construction based on the Ministry of Finance, Planning and Economic Development (MoFPED), Background to the Budget and annual performance reports (various years)

ii) State agriculture finance programmes

Government has over time, established a number of programmes aimed at financing agriculture. They including the Entandikwa Scheme (1996), Bonabagagawale (Prosperity for All), the National Agricultural Advisory Services (NAADS), Operation Wealth Creation (OWC) (2013) and more recently, the Emyooga programme, with the latter purposely set up to transform rural and peri-urban poor households (MAAIF, 2015).

a) Operation Wealth Creation (OWC)

The Operation Wealth Creation (OWC) managed by the Uganda Peoples Defence Force (UPDF) was created in 2015 in response to the perceived failure of NAADS to effectively transform the agricultural sector from subsistence to commercial farming (EPRC, 2018). OWC was intended to facilitate growth of household income through agriculture as well as address service delivery challenges in agriculture resulting from the institutional failure of NAADS. Currently, OWC is delivering planting materials to farmers through an input subsidy. UPDF officers fully supervise the subsidy distribution of farm inputs at village level, which inputs are procured by NAADS

Figure 2 illustrates the national budget allocation to NAADS for 2015/16 to 2019/20. Notably, the allocation has declined over the last three financial years, falling from UGX 319 billion in FY2017/18 to UGX 146 billion in 2019/20 (MoFPED, 2021). The continued decline in NAADS funding has affected technical service quality and

coverage, especially for innovative enterprises such as fish farming, access to critical agricultural inputs, as well as provision of agribusiness and value chain services. (MAAIF, 2020).

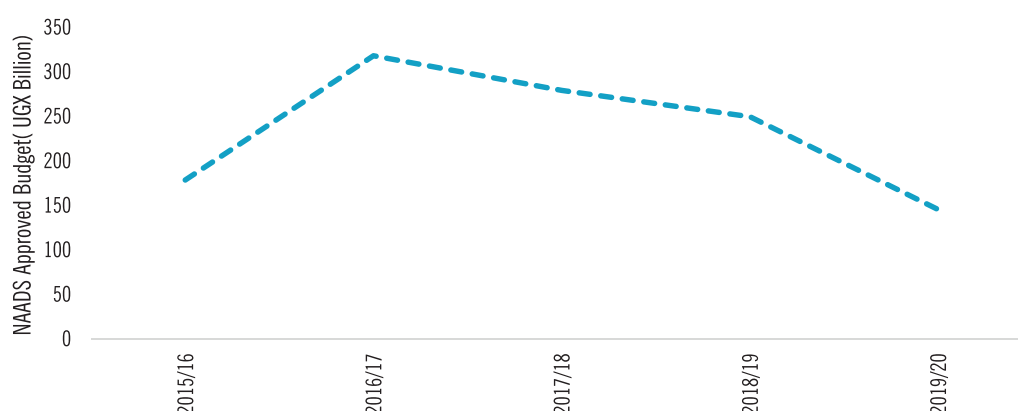
b) Agricultural Credit Facility (ACF)

The ACF was established in 2009 by the Government of Uganda (GoU) as a risk-sharing public-private partnership scheme between the GoU and the Participating Financial Institutions (PFIs)². The key objective of the ACF is to bridge the financing gap for commercialised production by facilitating the provision of medium and long-term finance to enterprises engaged in various agricultural value chains; at more concessionary terms than what is commercially available in the financial sector. Since inception, total ACF disbursements amount to UGX 526 billion (BoU, 2021). Government has financed 50 percent (UGX 267 billion) of the disbursements, and the other half has been provided by the PFIs (*ibid*). Under the ACF, PFI loan repayments are rolled back into the facility.

Despite the annual growth in total ACF disbursements, the annual percentage growth in facility funding has been declining (Figure 3).

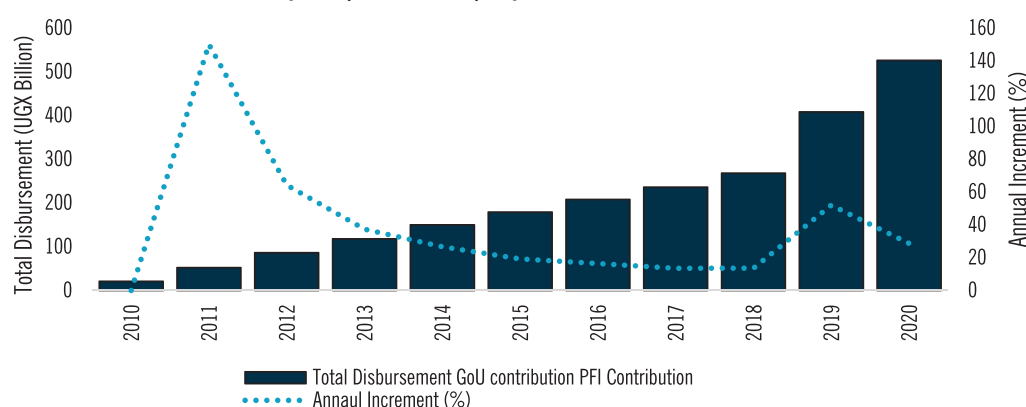
This could partly explain why despite the ACF, demand for agricultural finance remains unmet and an estimated deficit of UGX 65.1 billion was indicated, as of September 2020 recorded (*ibid*). Besides, the ACF has some other challenges. Indeed, CASA (2021) highlights several

Figure 2: NAADS allocation in the national budget (2015/16 to 2019/20)



Source: Author's construction based on National Budget Framework Papers, MoFPED

Figure 3: Total ACF disbursements (2009/10 to 2020/21)



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

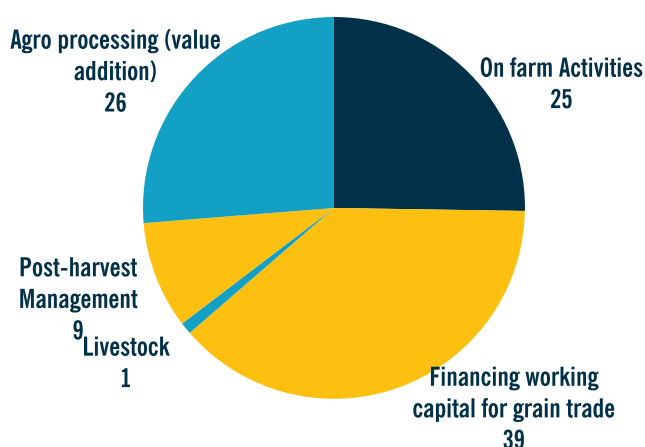
challenges, namely; the ACF structure does not provide robust feedback mechanisms to beneficiaries; two levels of approval (BoU and PFI) increase turnaround time; the high loan processing costs and interest payable, a bureaucratic write-off process; the low collateral value assigned to biological assets (seedlings, cows, piglets and suckers among others) yet PFIs require high collateral; and limited rural outreach of the PFIs yet agriculture is predominant in rural areas.

Besides the above challenges, there exist sectoral disparities in ACF disbursements.

Figure 4 illustrates that by the end of September 2020, grain trading (39%) was the most highly financed category under the ACF. Agro-processing and on-

farm production followed at 26 percent and 25 percent respectively. The two least financed categories were post-harvest management at (9%) and livestock at only 1 percent. While the original objective of the ACF was the modernisation, mechanisation, and commercialisation of large-scale agricultural farms in Uganda, ACF terms have been modified to encompass more players in Uganda's agricultural ecosystem including grain traders and small scale farmers through the block allocation product. While widening the scope of the facility could be commendable for inclusivity reasons, it stretches the limited government resources available for on-lending and blurs the scope of facility for proper targeting and meaningful agricultural transformation.

Figure 4: Share of ACF portfolio by activity financed, % (end September 2020)



Source: Author's construction based on BoU, ACF Progress Report, 2021

The distribution of ACF funding is not well balanced. The country needs more money at primary production (on-farm) and agro-processing stages of the value chains for increased productivity and value addition. Production continues to be constrained by limited and/or lack of farm infrastructures (e.g. equipment, valley dams, hatcheries, green houses, irrigation systems and excavation equipment). At the value-addition stage, storage, processing and transportation facilities are the main bottlenecks in improving agri-enterprise productivity and profitability.

c) Microfinance Support Centre Limited

The microfinance support centre limited (MSCL) is a Government-owned company established in 2001 to manage some of the Government of Uganda micro-credit programs. The MSCL provides affordable wholesale credit and business development services to microfinance institutions; Small and Medium Enterprises (SMEs), and Cooperatives. MSCL offers attractive interest rates at a minimum of nine percent to Savings and Credit Cooperative Societies (SACCOs), Village Savings and Loan Associations (VSLAs)/Groups, Cooperative Unions, Microfinance Institutions (MFIs), SMEs and Area Cooperative Enterprises (ACEs). MSCL credit is extended to enterprises dealing in agricultural production, marketing, value addition; trade and commercial activities; environmental conservation; and other sectors such as education, health, tourism, and solar energy (MSCL, 2017).

MSCL also has an Islamic microfinance window, which has demonstrated outstanding potential for financial inclusion. As at the end of FY2017/2018, UGX 31.7 billion had been disbursed under the Islamic microfinance window (MoPFED, 2021). This is in comparison to UGX 32 Billion under conventional financing. To improve the performance of the microfinance sector and increase micro enterprise sector financing, Government increased the capitalisation of the MSCL from UGX 19.2 billion in FY 2018/19 to UGX 58.3 billion in the FY 2019/20 (MoPFED, 2021).

However, access to MSCL products is still inadequate due to; limited capacity and knowledge of smallholder farmers to run commercial agribusinesses; and lack of awareness by farmers about the products and procedures to acquire microfinance products. Other challenges include; the high risk in agriculture primarily due to pests and diseases as well as climate change, which limits the borrowers' capacity to repay loans.

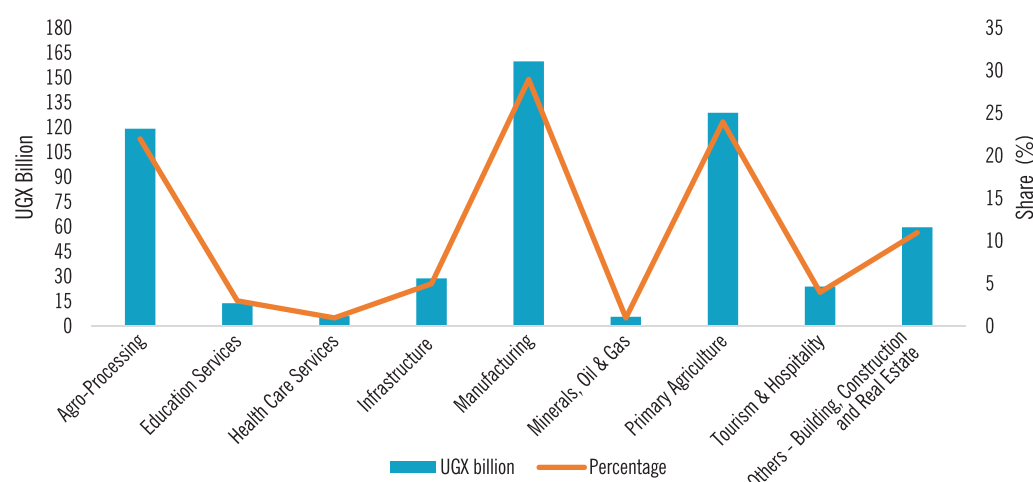
On the supply side, the process of acquiring MSCL credit is too complicated for most smallholder farmers, as they lack most of the requirements set by the MSCL. For a SACCO to access credit, it must, among other things; be registered; have a minimum of one year experience in running the business activity for which the organisation is registered; clear ownership, governance structures and management capacity; adequate staffing with knowledge and skills in microfinance and basic accounting. Additionally, SACCO formation processes are fraught with high levels of political interference, which stifles their independent development and operations (Lukwago, 2010).

It is also questionable if wholesale lending to SACCOs is appropriate given that it can discourage internal deposit mobilisation. Large amounts of external funds also have negative impact on SACCO management and governance. In fact, some SACCOs have excess liquidity and do not therefore need external financing. Easy access to affordable financing from MSCL may serve as a disincentive to deposit mobilisation and further weaken management and governance structures (CGAP, 2020).

d) Uganda Development Bank Limited

Uganda development bank limited (UDBL) finances farmer groups and SMEs in the agriculture sector by providing affordable medium to long-term finance. The Bank finances smallholder farmer groups composed of 50-400 members along agriculture value chains. The funds can be utilised for inputs, storage, machinery, or crop finance, among other needs. The key challenges in agriculture finance remain inadequate collateral to secure agriculture loans, informational opaqueness, low level of

Figure 5: Gross Uganda Development Bank loans by sector (2020)



Source: Author's construction based on UDBL (Annual report 2020)

technical and management skills, and lack of internal and external professionalism in agriculture enterprises.

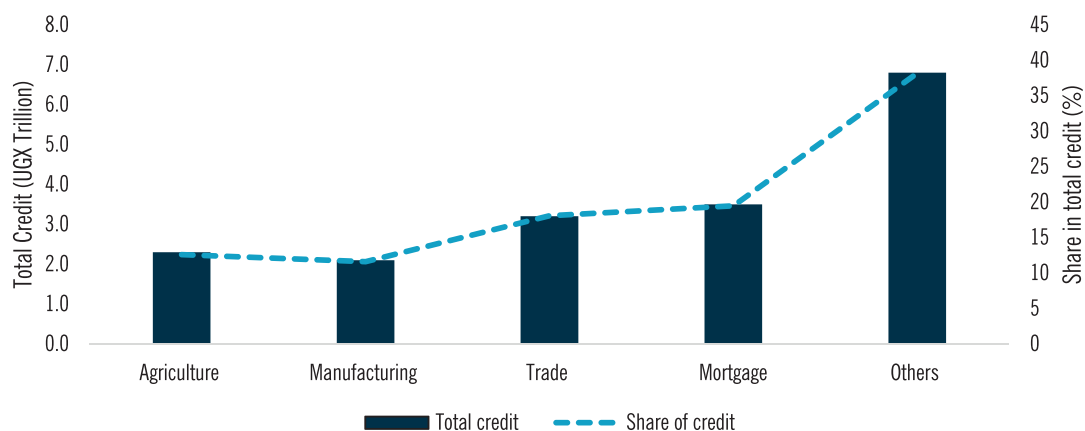
To enhance professionalism in agriculture enterprises and reduce the risk of default of financed projects, the Bank provides its clients with advisory services on; management best practices; good governance; record keeping; and financial management among others. The advisory services provided are based on the Bank's comprehensive knowledge of the business, operating environment, and experience gained from funding, implementing, and monitoring similar projects. Advisory services include training and technical support to develop and implement the required business processes. However, the Bank requires more financial resources to provide sufficient product support services (UDBL, 2020).

According to UDBL's 2020 annual report (Figure 5), primary agriculture and agro-processing sectors accounted for 24 percent (UGX 129 billion) and 22 percent (UGX 119 billion) of UDBL's portfolio, respectively, slightly less than the manufacturing sector, which took the largest of the share of 29 percent (UGX 160 billion).

The provision of business advisory and project preparation services by the Bank is aimed at increasing access to credit by enhancing the borrowing capacity in primary

agriculture and AGI sectors.

The Bank prioritises the agricultural sector and its industrialisation, in order to contribute to job creation, GDP expansion, GDP, tax revenue, and foreign exchange earnings from agriculture exports (*ibid*). The Bank believes AGI will, 'transform the economy by moving employment and value-addition from primary production to the industry sector'. UDBL also collaborates with key stakeholders in the AGI sector to bridge the financing gaps for increased productivity and sectoral transformation.

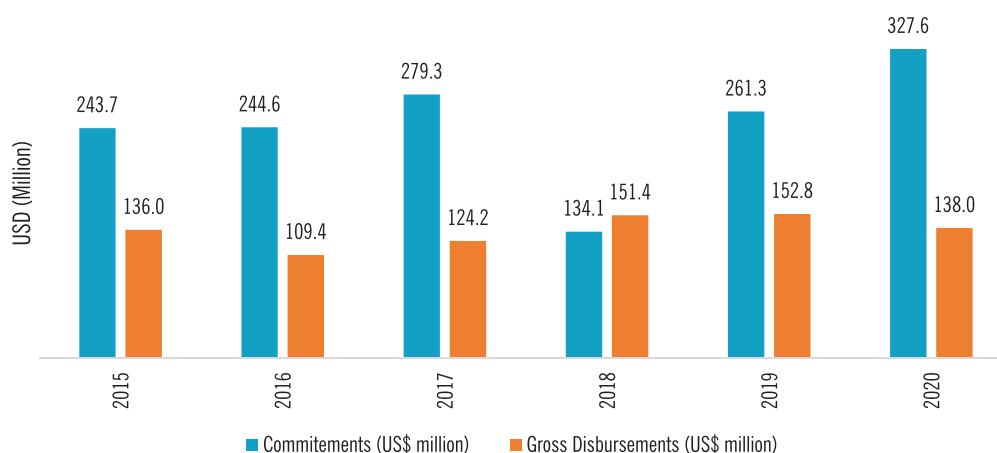
Figure 6: Sectoral shares of private sector credit (December 2020)


Source: Author's construction based on BoU, Statistical database, 2021

iii) Private sector credit to agriculture

The agricultural sector accounts for about 13 percent of the private sector credit (BoU, 2020). This is lower than what building, mortgage, construction and real estate sectors get (20%) (Figure 6). Much effort is needed to de-risk the agriculture sector to attract lenders. Data from the BoU shows that, as of December 2020, private sector credit to agriculture amounted to UGX 2.3 trillion, accounting for 12.6 percent of total bank lending. Most of the agricultural lending was for agro-processing and marketing (58%), followed by production (42%) (Figure 6). While the agricultural production stage feeds and keeps the rest of the value chain moving, it attracts lesser credit than agro-processing and marketing. This means that Government needs to increase its support to production

level functions (such as extension, research and disease control). In addition, more financial services, in terms of volume and more appropriate financial products also need to be availed to producers in the agricultural value chains. Savings mobilisation and the use of capital markets are some of the areas that can be tapped because they provide the kind of capital (cost effective, equity finance which comes with technical expertise and long term capital) needed at agro-enterprise establishment and production stages.

Figure 7: Official development assistance for agriculture sector (USD million), 2015-2020


Source: Author's construction based on Organisation for Economic Cooperation and Development statistics, 2020

Government recognises the need to improve the availability and suitability of credit to farmers. However, policymakers generally believe that credit is a private rather than a public good and its provision should therefore be spearheaded by private providers, i.e. financial institutions. One of the main challenges is that most financial institutions do not offer lending instruments suitable for Uganda's agriculture. Consequently, most producers/farmers are either unable to access credit from such institutions (because lenders consider their enterprises/practices and collateral offers too risky or of little value, respectively). Or, they access products (term, amount, interest rate) that are ill-suited to agricultural activities especially at production and agro processing stages, where establishment costs (equipment and infrastructure) are not only high but they require capital of medium to long term tenure.

iv) **Development partner financing**

Development partners have supported Uganda's agriculture sector by providing financial resources and principles that guide the implementation of key agriculture projects and by contributing to policy formulation. Financial support provided by development partners comprises direct funding of relevant agricultural projects and indirect financial support provided through general budget support and earmarked sector support.

Over the last five years, gross disbursements of Uganda's total Official Development Assistance (ODA) for agriculture, forestry and fishing have been less than the commitments made by official donors for all funding channels. For example, in 2019, Uganda received only 42 percent (USD138.0 million) of the committed USD 327.6 million (Figure 7).

ODA disbursements for agriculture have been low and slow over the years due to slow implementation of agriculture projects. This is attributed to institutional inefficiencies such as; long procurement processes, failure to follow the conditionality and guidelines for utilisation of the funds, and delays in submitting accountability reports, which hinder and slow down subsequent releases (Milton, 2008).

In addition, donor funding emphasis in development assistance has shifted towards social sectors (i.e., health) and infrastructure (i.e., roads and energy). This shift has led to a significant decline in their contribution to the agricultural sector funding. However, donor confidence in the sector has also reduced due to inherent complexity, risks and poor performance of agricultural projects. The decline in funding has also been associated with tight fiscal constraints and inadequate capacities at the Ministry of Agriculture, Animal Industries and Fisheries (MAAIF) and agencies of agriculture to bargain for more resources (Lukwago, 2010).

1.1.3 Conclusion and emerging policy options

In light of the above discussion, the following policy options are put forward;

- (i) The Government should increase budget allocation to the agro-industrialisation sector. This can be done through strategic orientation of the budget towards Agro-industrialisation. One practical policy action that the Government needs to take is to curtail the cost of public administration to reallocate more resources to Agro-industrialisation development. In addition, the Government is set to mobilise more resources from oil revenues. Such resources should not be utilised to support the bloated public administration. Still, they should prudently invest in unlocking the binding constraints to socio-economic transformation by investing in agro-industrialisation.
- (ii) Increase the capacity of MAAIF to mobilise more resources for agricultural development from potential donors and the Government. This can be done through improved institutional efficiencies by adopting the appropriate procurement methods such as direct purchases for emergencies in the agriculture sector to speed up and increase the level of agricultural disbursements from both local and foreign financiers and improvement in human

- resource capacity, among others.
- (iii) The lending institutions such as Commercial Banks, Credit Institutions, Uganda Development Bank (UDB) and Microfinance Support Centre (MSC), among others, should reduce collateral requirements for agriculture loans to increase access to credit by exploring other credit security requirements such as the use of guarantors, land agreements, equipment, agriculture produces and products stock etc.
 - (iv) The Government should provide UDB with adequate funds for business advisory services to enhance professionalism in agro-industrialisation enterprises and reduce the risk of default of financed projects. This will enable the Bank to provide sufficient product support services in management best practices, good governance, record keeping, and financial management. Also, de-risking the agro-industrialisation sector through provision of business advisory services by UDB will enhance the borrowing capacity of the investors.

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Endnotes

- 1 PFIs are Commercial Banks, MDIs, Credit Institutions (CIs) and UDBL

1.2 STIMULATING AGRIBUSINESS RECOVERY FROM THE COVID-19 PANDEMIC IN UGANDA: A REVIEW OF FISCAL SUPPORT TOWARDS PUBLIC SECTOR INVESTMENT IN AGRICULTURE.

Enock Will Nsubuga Bulime¹



Photo: Badru KATUMBA / AFP Copyright ID4D, <https://ideas4development.org/en/covid-19-africa-fragility-food-system/>

1.2.1 Introduction

Sound fiscal policy is critical for transforming Uganda's agricultural sector and the economy as a whole. The agricultural sector is critical in economic growth, employment creation, income enhancement and industrialisation (Fowler, 2020). Between 2015/16 and 2019/20, it, on average, contributed about 25 percent to Uganda's GDP and grew at 4 percent. This was an improvement from the average growth of 2 percent observed between 2010/11 and 2014/15 (UBoS, 2021a). The sector is the leading source of employment, providing jobs/occupations to about 73 percent of women and 63 percent of men, and averaging about 68 percent of the total population (UBoS, 2021b). In its NDP III, Government is, under the agro-industrialisation programme, prioritised ten agricultural value chains including coffee, tea, fisheries, cocoa, cotton, vegetable oil, beef, maize, dairy and cassava (NPA, 2020).

However, creating and sustaining economic growth, job creation and agro-industrialisation, requires sound and supportive fiscal policy, mainly through targeted tax and expenditure measures. On the one hand, expenditure on agriculture (agriculture-specific expenditure) is crucial for enhancing primary production, productivity, value addition and addressing binding constraints such as inadequate supply and limited access to critical production inputs. Additionally, expenditure on public investments in transport and communication infrastructure, human capital development and broader legal and policy frameworks, enhances the agriculture sector's performance. On the other hand, well thought-out agricultural taxes and tax exemptions can spur agricultural development.

This article reviews the fiscal support to the agricultural sector in the five years before (and during) the COVID-19 pandemic. The article relies on desk review and key informant interviews².

¹ Young Professional, Economic Policy Research Centre, Makerere University, Kampala, Uganda (ebulime@eprcug.org).

1.2.2 Fiscal support before COVID-19

1.2.2.1 Agricultural expenditure

During the past decade (2010/11 – 2019/20), Government has undertaken targeted budget allocations to transform the sector from subsistence to commercial agriculture. Despite its commitment to the 2003 Maputo Declaration to allocate at least 10 percent of its public budget to the sector, Government is yet to meet this target (World Bank, 2019). The low allocations to the sector could reflect the increasing competition for revenues by other sectors including works and transport, health and education and government debt Interest payments. Whereas spending on competing priorities such as infrastructure and education could indirectly boost agricultural production and productivity, interventions in those sectors have had limited effect on existing challenges such as (i) inadequate adoption of improved inputs (seed and fertiliser), (ii) access to finance, and (iii) adoption of improved farming methods or commercialisation. In addition, there is a fairly long time lag before the agricultural sector benefits from investments made in the education and infrastructure sectors.

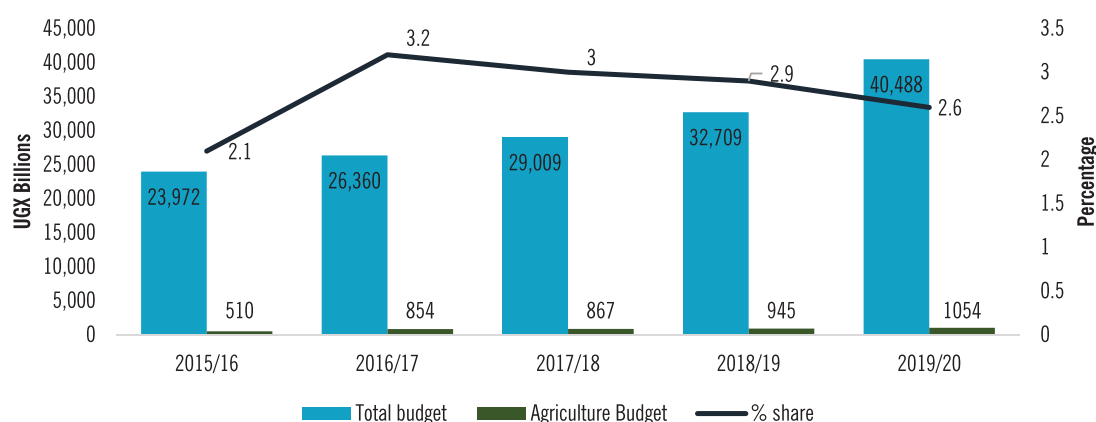
Nonetheless, during the implementation of NDP II, budget allocations to the sector increased from UGX 510 billion in 2015/16 to UGX 1,054 billion in 2019/20 (Figure 8).

This increase broadly reflects the government's changing priorities, of focusing on enhancing productivity growth and sector transformation. On average, between 2015/16 and 2019/20, about 94 percent of the approved budget resources were disbursed to the sector, though instances of delays to release funds and low absorption remain (MoFPED, 2019; MoFPED, 2020a; World Bank, 2019). Delays in releasing funds are mainly common in the Local Governments, primarily due to non-compliance with Public Financial Management laws and regulations (MoFPED, 2020a). In addition, the implementation of NDP II's agriculture-specific core projects was characterised by an increase in external funding to the sector.

A significant amount of agricultural spending is allocated to the procurement and distribution of agro-inputs, contrary to the conventional view that public expenditures should address market failures and inequalities in the distribution of public goods and services, (World Bank, 2019). Furthermore, Government's involvement in procurement and distribution of agro-inputs; (i) crowds out private sector from the input market and (ii) diverts the public resources that could have been used for providing infrastructure and better-quality extension services.

Government has also increased allocations to central level agencies (Ministries, Departments and Agencies)³, instead of the Local Governments (LGs)⁴ (MoFPED, 2016;

Figure 8: Budget allocations to the agricultural sector (2015/16 to 2019/20)



Source: Author's construction using data from Ministry of Finance, Planning and Economic Development.

2017; 2018; 2019; 2020a). This raises concerns about LG's capacity to meet the priorities of the communities that they serve. However, monitoring reports by MoFPED and other development partners indicate that most LGs still have challenges in ensuring transparency and accountability in funds usage and planning (MoFPED, 2020a; World Bank, 2019). Therefore, these challenges must be addressed as plans to increase fiscal support to the LGs are being made.

In addition, most of the funds to the central and local governments are allocated to the recurrent budget, thus making it difficult for the government to invest in long term needs such as extension service improvement, rural infrastructure and irrigation facilities. Whereas the private sector, civil society organisations and development partners have supported efforts to provide irrigation facilities, their support to rural infrastructure and advisory services remains very limited.

Conversely, an increasing share of the sector's budget has during the past five years, been externally financed. For instance, several capital expenditures, including NDP II projects such as Agriculture Cluster Development Project, Markets and Agriculture Trade Improvement

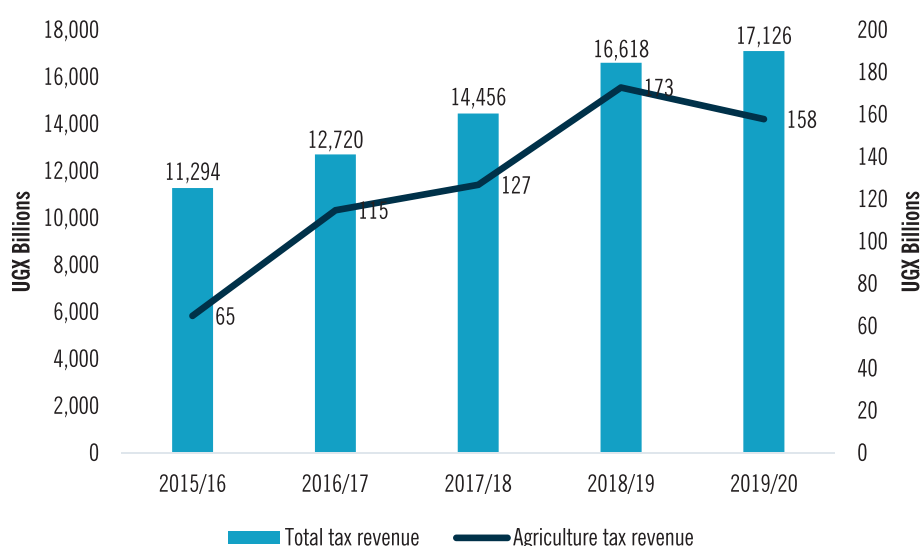
Project (MATIP II), Farm Income Enhancement and Forest Conservation II, are financed through external loans. This raises concerns on how capital expenditures that are critical for unlocking the potential agricultural production and productivity can be sustained.

1.2.2.2 Tax measures

Over time, the sector's contribution to tax revenue has increased (Figure 9), albeit at a slow pace. This means that either the sector is undertaxed because, compared to other sectors; (i) most of the people engaged in agriculture are in subsistence agriculture (39.5 percent) and therefore earn less compared to other sectors (UBoS, 2018) or (ii) it receives more fiscal support in the form of tax exemptions and concessions.

The sector continues to be taxed directly or indirectly. Direct taxation mainly includes individual income tax, presumptive tax, corporation tax and Pay As You Earn (PAYE). For instance, small taxpayers whose annual turnover is below UGX 150 million are liable to pay presumptive tax while only employees earning monthly income greater than UGX 235,000 qualify to pay PAYE (URA, 2021). The indirect taxes mainly include value-

Figure 9: Total tax revenue and agricultural tax revenue (UGX Billions)



Source: Author's construction using data from Uganda Revenue Authority.

added tax (VAT) on domestically produced goods and imports, import duty and excise duty (URA, 2021). Notably, most agricultural workers and enterprises are not directly taxed, partly because they do earn revenues or salaries below the taxable thresholds under the current legal regime.

The sector continued to benefit from tax concessions and exemptions such as preferential taxes on duties, inputs and VAT (URA, 2021). These include VAT exemptions on inputs such as hoes, ploughs, fertilisers, agricultural chemicals, tractors, aluminium cans, heat-insulated tanks for the dairy sector, among others. (URA, 2019; URA, 2021). Such measures aim to boost investments, production and productivity, agro-industrialisation and export promotion, which would support sector growth. On the one hand, tax exemptions have supported the growth of the sector. For instance, processors in the dairy sector argue that exemptions on aluminium cans, heat-insulated milk tanks and insulated tankers have tremendously supported the development of the dairy sector by attracting both foreign and domestic investors.

On the other hand, supporting agricultural transformation through tax exemptions could be misused and misguided if systematic evaluations (economy-wide and sector-specific) are not undertaken to take stock of the costs and benefits. For instance, a stakeholder in the agricultural sector indicated that tax exemptions are sometimes *ad hoc*, undertaken without comprehensive studies or clear guidelines and depend on the lobbying skills of individuals and associations.

Another stakeholder from MAAIF argued that, though guidelines for some tax incentives exist, these are not communicated to the potential beneficiaries. This could explain why some individuals still approach MAAIF to obtain tax exemptions or waivers, yet MAAIF is not responsible for granting tax exemptions. Stakeholders in the dairy sector also indicated that application and approval processes for exemptions are bureaucratic and complex, especially for micro, small and medium-sized

enterprises. Consequently, further investments in the sector have been derailed by such delays.

Furthermore, exemption on some items is sometimes not done in close consultation with other stakeholders such as MAAIF and Ministry of Trade, Industry and Cooperatives (MTIC), who are the designers of the Agriculture Sector Strategic Plan (ASSP) [2015/16 – 2019/20] and the National Export Development Strategy (NEDS) [2015/16 – 2019/20] respectively. Input from these two Ministries is critical since they provide strategic guidance and oversight on agricultural production, productivity and trade (external and internal). Importantly, it would be prudent to design tax incentives in line with the ASSP and NEDS to ensure prioritisation in incentives.

However, prioritisation of tax incentives for particular agricultural value chains has been difficult during the past five years because of confusion over priority value chains. Fowler and Rauschendorfer (2019) reported that the strategy documents of state institutions (MAAIF, MoFPED, MTIC and National Planning Authority (NPA) have different agricultural value chains on their priority lists. Such a lack of coordination could demonstrate the absence of a common vision for transforming the agricultural sector, for either food security or export promotion.

In addition, perpetual provision of tax exemptions and concessions, without clear timelines for their removal, could be associated with increasing inequality across and within sectors, lower wages and welfare and resistance, in case of abrupt removals. This is especially the case where some agricultural sector value chains benefit more than others do, and employers intentionally keep their employees' wages low so that they are not eligible for PAYE.

Further, the provision of tax exemptions is associated with perpetuating a culture of dependence on incentives and opposition to any tax proposals. For instance, interactions with stakeholders also revealed that more exemptions (beyond what was provided by the Government) were

still expected. In addition, Stewart-Wilson and Waiswa (2020) also reported that amending the Income Tax Act in 2018/19 to provide for a 1 percent withholding tax on agricultural supplies above UGX 1 million was met with protests from farmers and politicians. This culminated in the abolition of the tax amendment in the following year.

1.2.3 Fiscal issues during the pandemic

The COVID-19 pandemic and the associated containment measures put significant pressure on Uganda's economy and fiscal revenues, affecting the fiscal policy measures to support the agricultural sector.

1.2.3.1 Agricultural expenditures during COVID-19

Government re-prioritised spending on the agricultural sector to focus on critical activities for building resilience and supporting economic recovery. A stakeholder from MAAIF indicated that Government reduced consumptive expenditures to avail money for development/capital expenditures. Therefore, spending on certification and inspection, research and consultancy, travelling abroad and within Uganda, workshops and conferences was reduced. Whereas this increased capital expenditures, it limited the provision of inspection, certification, research and consultancy services crucial for the transformation of the sector.

Fiscal spending on the sector was not significantly different from pre-pandemic expenditures, increasing by 27 percent from UGX 1,054 billion in 2019/20 to UGX 1,334 billion in 2020/21. Sector-specific spending priorities in FY 2020/21 include (i) enhancing the provision of improved agro-inputs using NAADS e-Voucher Scheme, (ii) providing rainwater harvesting technologies, (iii) implementing solar irrigation schemes and (iv) construction of multi-purpose water reservoirs, among others (MoFPED, 2020b). On the other hand, government relief measures include recapitalising UDBL, and MSCL to provide affordable credit for small and medium enterprises (*ibid*).

Despite the recapitalisation of the UDBL, beneficiaries indicated that the approval process was too long and, therefore, financial support was obtained late.⁵ Inefficiencies and delays in loan processing forced would-be beneficiaries to go to other lending institutions that had shorter loan assessment periods and higher interest rates. On the other hand, funds from UDBL remain inaccessible and inadequate because most of the prospective beneficiaries cannot meet some the requirements, mainly because of UDBL's restrictive criteria and the informal nature of most agricultural enterprises (ISER, 2020; Saha, Quak, & Carreras, 2020).

In addition, increasing uncertainty about the epidemiology of the pandemic and its effect on aggregate demand has made some agribusinesses more risk-averse to borrowing. Stakeholders also indicated that the methods of accessing the funding under MSCL are neither well publicised nor clear. Government's delay in meeting its commitment to capitalise UDBL to a tune of UGX 1,045 billion also has implications on the availability of funds to support agro-industrialisation.

Though planned on the eve of COVID-19, the Programme Based Approach (PBA) to planning, budgeting, and monitoring government interventions and the PDM⁶ are taking effect during the pandemic. The development of NDP III follows a programmatic approach, and the agricultural sector interventions will mainly be undertaken in the NDP III's agro-industrialisation programme.

These reforms have received mixed views from stakeholders. On the one hand, the PBA is expected to strengthen government coordination and cooperation and reduce resource wastage and duplication. At the same time, the PDM is likely to bring services closer to the people. However, stakeholders have noted that the agro-industrialisation programme budget (MoFPED, 2020c) is delinked from the NDP III and Programme Implementation Action Plans (PIAPs). In addition, the resources allocated to MAAIF and Ministries, Departments and Agencies (MDAs) have also been reduced, which could reflect a

reduction in funding due to near-completion or completion of some MAAIF projects and the allocation of more funding to the LGs which are implementing the PDM.

Nonetheless, commitment to these reforms remains questionable. One of the stakeholders indicated that there are more instances of increased misalignment of budgets to plans and poor coordination of government interventions in the agricultural sector. For instance, whereas most of the activities in the PDM are agriculture-based, the role of MAAIF is not clearly emphasised in the PDM guidelines. Furthermore, prioritisation of export promotion and import replacement should be reflected in the PIAPs and Sector Strategic Plans. Lastly, increasing funds to the LGs should be complemented by efforts to ensure transparency, reduce corruption and promote effective monitoring.

1.2.3.2 Tax measures

Present circumstances suggest that tax policy measures should boost crop and livestock productivity, pest and disease control, aggregate demand and agri-business investment. To support the sector, the government's fiscal measures include a mix of both tax and non-tax measures (MoFPED, 2020d).

The appropriate tax measures include deferrals of corporate income tax for corporations and presumptive tax for Micro, Small and Medium Enterprises (MSMEs); deferring payment of PAYE by affected sectors such as floriculture; tax filing extensions of both monthly and annual returns and waived interest on tax arrears. These measures provided some temporary relief to formal enterprises, which make up a small proportion of the enterprises engaged in agricultural activities. In other words, most informal enterprises have not benefitted from the measures. In addition, measures, especially tax deferrals, were less effective in the short term since most agri-businesses experienced massive losses due to a reduction in aggregate demand.

To further support import replacement and promote export, Government; (i) increased import duty on agricultural products to about 60 percent, from 35 percent; and (ii) removed VAT on the supply of agro-equipment⁷ and processed milk (URA, 2021). Key stakeholders in the dairy sector stated that the removal of VAT on agro-equipment and processed milk reduced the cost of inputs and further boosted the competitiveness of their products.

These import replacement and export promotion measures are likely to be more effective if they are maintained in the long rather than the short run. This is mainly because of the existing business environment challenges (such as limited access to affordable credit and the high cost of electricity) that impede agricultural production and processing. Even then; (i) tariff increases might be jeopardised by retaliatory measures from exporting countries; and (ii) VAT measures might be rescinded, through to the involvement of politicians, civil society organisations and farmers.

On the tax administration front, Government has urged URA to accelerate the payment of tax refunds for VAT and other taxes (MoFPED, 2020d). URA also launched the Voluntary Disclosure Campaign to encourage taxpayers to reveal any outstanding unpaid tax that had not been disclosed or was partially declared (URA, 2020). To support MSMEs ease their tax compliance, Government also reviewed its presumptive tax regimes. Like the other tax measures, these tax administration measures generally benefit a few formal and commercial enterprises in the agricultural sector by enabling improved short-term liquidity and compliance with the tax requirements.

1.2.4 Conclusion and policy implications

This review presents some of the key fiscal issues in Government's support towards the agricultural sector before and during the pandemic. Government allocations to the agricultural sector have increased over the past five years, but most of the funding allocated goes to central-level government MDAs and recurrent expenditures. In addition, tax measures have mainly taken the form of tax

exemptions and concessions.

Government's response to sector challenges arising out of COVID-19 pandemic is insufficient to offer the support needed to boost resilience and recovery. Agriculture-specific measures in response to the pandemic were few and the measures targeted even fewer beneficiaries. This is because most of the would-be beneficiaries were/are excluded by the restrictive requirements; and Government's delay in honouring its commitment to recapitalise UDBL meant fewer enterprises could benefit, especially those operating in the agricultural sector.

Before the pandemic, Government support was mainly influenced by efforts to commercialise agriculture. However, during the pandemic and post-pandemic period, fiscal support has been influenced by efforts to commercialise agriculture, promote import substitution and export promotion, and operationalisation of reforms such as the programme-based approach of NDP and the PDM.

Looking ahead, supporting the agriculture sector will require the Government working with the agricultural private sector to;

- i) Invest in research and quantification of the effects of COVID-19 on various value chains so that proposals for tax exemptions are based on evidence of need and the benefits that can accrue out of the exemptions within specific exemption timelines. This will help to reduce political interference and manipulation of exemptions;
- ii) Enforce accountability, transparency and resource-use efficiency among MDAs and LGs to achieve the sector goals and targets; and
- iii) Ensure a clear understanding and operationalisation of the agro-industrialisation programme, linking of budgets to the third NDP with those of the associated Programme Implementation Action Plans.

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Endnotes

- 2 The article benefited from key stakeholders from the Ministry of Agriculture, Animal Industry and Fisheries, United States Agency for International Development and the Dairy Sector value chain actors including producers, traders and processors.
- 3 MAAIF, National Agricultural Research Organisation, National Agricultural Advisory Services Secretariat, Uganda Cotton Development Organisation, Uganda Coffee Development Agency, Dairy Development Authority, National Animal Genetic Resource Centre and Data Bank.
- 4 Local Governments (District Production Offices) and Kampala Capital City Authority.
- 5 A respondent from the dairy sector said that they applied for UDB funds, but it took long for them to get the money, thus affecting the investments that they had planned to use the money for.
- 6 The government plans to strengthen the sub county as the lowest planning unit and the parish as the administrative and operational hub for all government services at the local level (NPA, 2020).
- 7 These include combine harvesters, slashers, rakes, crop sprayers; root or tuber harvesting machinery, irrigation equipment; drinkers and feeders for all farm animals and tuber harvesting machinery among others (MoFPED, 2020a).

1.3 WILL THE ESTABLISHMENT OF A MEAT REGULATORY AUTHORITY IMPROVE FINANCING FOR UGANDA'S BEEF SECTOR? LESSONS FROM BOTSWANA AND NAMIBIA

Edward B. Ssekayiba¹



1.3.1 Background

Uganda's beef is ranked fifth best globally because its yellow fat does not contain cholesterol, which is a result of the cows being grazed naturally (UIA, 2016). The livestock subsector accounted for about 4.3 percent of Uganda's GDP and 17 percent of agricultural value-added (UBoS, 2018). More than 60 percent of the rural households in Uganda derive their livelihoods from livestock. In 2018, Uganda's livestock population consisted of 12.1 million cattle, 15.6 million goats, 4.4 million sheep, 4.5 million pigs and 48.3 million poultry (*ibid*). About nine out of ten cattle are indigenous. Beyond providing food and other goods and services – such as manure and draft power to the population– the livestock sector contributes between 1 and 1.5 percent to Uganda's export trade value (FAO, 2019).

Since 2018, Uganda has been implementing the Beef Investment Plan (BIP) within the country's overall development long term plan, Uganda Vision 2040. The vision of BIP is '*a vibrant, profitable and sustainable beef industry, providing quality products for the domestic and export markets*'. The Plan's mission is 'to promote, support and guide the development of the beef industry, and ensure supply of adequate, wholesome and safe beef and beef products to consumers in the domestic and export markets. The BIP has five thematic areas, namely; i) Governance of the beef industry; ii) Beef production and productivity; iii) Animal health; iv) Technology generation and dissemination; and v) Beef processing and marketing. The Plan has ambitious targets for annual beef production (390,000 Tonnes) and beef export (at least 30,000 Tonnes) by 2025.

The above targets requires substantial improvement in beef value chain production and productivity. These improvements in turn, demand much better financing

¹ Head, Strategic Partnerships and Cooperation Programs Unit | Uganda Small-Scale Industries Association (edward.ssekayiba@gmail.com)

of the value chain. Currently the livestock sector has benefitted only 1 percent of the disbursements made under the ACF, which is the main Government intervention in the financing of agriculture. So, is Uganda prepared to finance the BIP and improve the regional competitiveness for its beef products? Does the country have the proper governance and institutional structures to support the country's beef production and productivity? This article examines the current state of the beef subsector and interventions aimed at its improvement. It also provides a comparative analysis of good practices used in other African economies that have had considerable success in financing of their beef value chains.

1.3.2 Uganda's beef sector – structure and constraints

1.3.2.1 The beef cattle production systems

Ugandan beef farmers currently operate under one (or more) of the four following production systems i) Commercial Ranching; ii) Pastoral; iii) Agro-pastoral; and iv) Semi-intensive (Mbabazi and Ahmed, 2012; Asizua *et al.*, 2017; FAO, 2019).

Commercial ranchers hold about 2 percent of Uganda's livestock. Considering the financing challenges, this system demands substantial scaling up of animal health management and breeding investments. Uganda's animal diseases control system, implemented through veterinary services delivery is weak, and not fully structured. It also lacks the requisite infrastructure. At present, veterinary services cannot implement comprehensive vaccination programmes, especially for Foot and Mouth Disease (FMD) and Peste des Petits Ruminants (PPR) and other preventable animal diseases due to inadequate budgetary provisions. The annual cost of farm animal veterinary care oscillates between USD 45-60 per animal per year. Therefore, compliance often depends on the technical and financial capacity of the farmer. The common breeds kept include a mixture of the indigenous, cross and exotic

breeds, usually imported from Kenya, South Africa and Europe (Mpairwe *et al.*, 2015). The average carcass weight is about 140-150 kilogramme (kg), with ranches managing herds ranging of between 500 and 3,000 heads of cattle. The only domestic source for high-yield breeds for individual farmers is the National Animal Genetic Resources Centre and Databank (NAGRC and DB).

The pastoral system is a free-range grazing system, of mostly (98 percent) local breeds, which in any case, constitute around 90 percent of the national cattle population. This system is practised in areas of low-density population (mostly rural areas) where provision of goods and services (including financial institutions) by both the Government and private sector is very limited. Access to animal health services is particularly limited, and in most cases, animals are only vaccinated during government vaccination programs. The average carcass weight for an adult animal at slaughter is about 110-120 kg, with the pastoralists managing herds of variable sizes up to 100 heads per person.

The agro-pastoral production system involves grazing animals in private or public pastures (ACET, 2014), making the quantity and quality of biomass often unpredictable for grazing animals. The carcass weight ranges from 120 to 130 kg, with the average herd comprising around 10 cattle. As the significant beef market in the country is Kampala, agro-pastoralists have scanty information on the retail price for beef, and hence limited bargaining power in market transactions. The semi-intensive system involves the farmers keeping cattle confined and providing fodder, compound feed and crop residues. It is not so common and comprises less than 10 percent of the national herd (Mwebaze *et al.*, 2011). The cattle are cross breeds, and carcass weight at slaughter is around 135-140 kg. The average herd size varies. It is between 1 to 5 animals for small farms, between 5 to 15 animals for medium farms, and more than 20 animals for large farms (*ibid*). Animals are primarily kept for producing milk, with beef mainly obtained from slaughter of no-longer productive female cattle. Farmers invest in animal health, including

Table 1: Summary of Uganda's beef production systems

Beef Production System	Average Cattle holding per person	Breed of Cattle (in order of prevalence)	Carcass Weight Per Slaughtered Animal (Kg.)
Commercial Ranching	500 - 3000	Indigenous, some Cross and Exotic	140 to 150
Pastoralism	≤100	Indigenous (98%)	110 to 120
Agro-pastoralism	≤10	Indigenous, some Cross	120 to 130
Semi-intensive*	1-5, 5-15, >20	Cross	135 to 140

Source: Author's construction based on ASL2050, 2018 country brief by FAO.

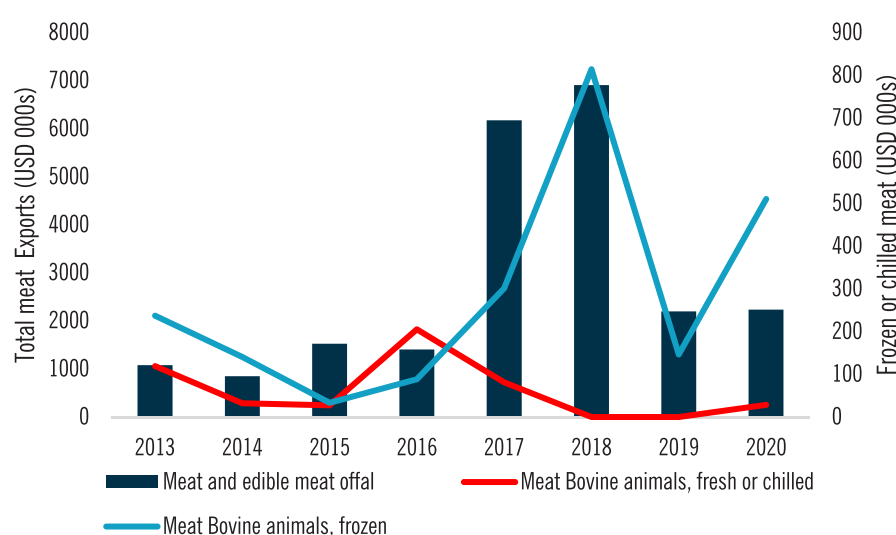
disease prevention and treatment. However, productivity in this system is still low because of difficulties farmers encounter in accessing affordably-priced and quality inputs and services, such as artificial insemination (AI) (ACET, 2014).

Financing projects by financial institutions under any of the above systems is purely based on the negotiation skills of individual farmers. Available reports (FAO, 2019) reveal the number of commercial beef farmers is small, consisting of 119 ranchers and about 2,617 farmers organised under the UMPCU. Beef production in Uganda is dependent on natural pastures, which is a low-input-low-output production system. Meat yield is highest during the wet season when forage quantity and quality is higher, implying that sustaining consistency in beef yield

throughout the year is a big challenge. There is a need to adopt better production systems that not only give high meat yields but also assure continued supply of required beef volumes throughout the year. Financial institutions need to be part of the conversation with organised farmers in developing financial products that can support all-year supply of high quality beef.

1.3.2.2 Beef meat value addition

Currently, Uganda produces boneless beef and veal (unique cuts); and meat beef preparations for export. The country does not export beef and veal sausages (FAOSTAT, 2021). There are many multi-species meat processors in Uganda, four of which double as abattoirs and processors, targeting both the internal and external markets. These

Figure 10: Trend of Uganda's meat export (2013-2020)


Source: Author's computation based on ITC Trade map database, 2021

are engaged in processing at least 25 beef products mainly for the domestic consumer market and exporting unprocessed beef meat (fresh, chilled and frozen) to external markets. The processed volumes, however, do not satisfy the domestic market demand.

The current bovine meat trade trends show Uganda is a net exporter of frozen meat. The official trade data indicates that on average, the country exported meat and edible meat offal worth USD 2.8 Million over the past eight year period (ITC TRADEMAP, 2021)². However, export trend lines for both frozen and fresh/chilled bovine meat are not impressive (Figure 10). These are low export values compared to Uganda's cattle population that stood at 12.1 million in 2018. Owing to low supply of inputs, local processors are under-utilising their capacity. For example, the Egypt-Uganda Food Security Company's USD11 million capital investment is meant to process 1,000 heads of cattle per day, but this capacity is hardly being realised.

Uganda's bovine meat exports are limited to the African Caribbean and Pacific (ACP) states. The low export volumes is attributed to the current beef production system that is mainly subsistence-based and primarily uses slow-maturing indigenous breeds. Preference for indigenous breeds is attributed to the poor local animal health management system, under which exotic breed do not survive well. For Uganda to realise its ambitions of sustainably participating in the lucrative international beef market, establishing disease control zones, beef export compartments and the livestock identification and traceability systems under animal health management need to be considered urgent and critical right from the policy level. Fortunately, these critical policy-level interventions are being considered under the on-going GoU and European Union (EU) co-funded Market-Oriented and Environmentally Sustainable Beef Meat Industry (MOBIP) project, albeit at a slow pace. The current interest and commitment by the EU to support Uganda's sector is an excellent opportunity for the Government of Uganda to seriously co-invest in the BIP.

1.3.3 Past and current national policy responses to financing the beef sub-sector

The beef sector's sustainable and competitive development focusing on producing adequate quantities and quality beef requires that Uganda complies with the national and international frameworks governing food safety.

In 2003, GoU committed to the CAADP with a target of increasing agricultural growth rates to 6 percent per year. Also, within the African Union (AU), the Livestock Development Strategy for Africa: 2015-2035 (LiDeSA) was developed to inform and guide investments in the sector. In the 2019 Biennial Review Report, Uganda, alongside the other eleven Eastern Africa member states, was assessed as 'not-on-track' regarding the seven commitments under the Malabo Declaration (NEPAD, 2019). The three countries registered an average score of 40 percent. Uganda specifically scored 48.6 percent under the second commitment of 'Enhancing Investment Finance in Agriculture'. One of the critical areas of attention pointed out was to increase the annual growth of the agriculture value added (agriculture GDP). Several interventions have in the past, been undertaken by both the GoU and development partners, to support Uganda's beef sector.

1.3.3.1 Joint Government of Uganda and development partners interventions

An initial attempt to improve Uganda's beef sector came between 2009 and 2011 through the 'Uganda Meat Export Development Project (UMEDP)'. This was a Norwegian Government and GoU co-funded project that sought to make it possible to export quality Ugandan beef meat to a Norwegian meat company Nortura BA and the broader lucrative EU market. The project aimed to create disease control zones (DCZs), support relevant policies and ensure that production and processing systems meet European demands. As a result of the project, the Uganda Meat Producers Cooperative Union (UMPCU) and the Uganda Meat Export Company (UMEC) were formed.

However, several challenges and weaknesses affected the realisation of the key expected results. Low government funding and weak project implementation did not allow the creation of the DCZs (BMAU, 2014)³, and hence other export aspects of the project could not be finalised. The UMEC did not become operational. It was premature for Government to rush into creating an export entity when the critical foundational elements needed to sustainably facilitate external trade were missing. Good animal health, including livestock traceability and meat hygiene practices, are considered critical by the EU beef market. For example, much as the primary beef producers got organised, individual farmer knowledge and skills in animal health management were unfortunately, considered secondary.

1.3.3.2 Government of Uganda intervention

The Meat Export Support Services Project (MESSP) was a five year (2015-2020), a wholly GoU-funded initiative that sought to improve the beef meat supply chain throughout the cattle corridor. It had three main activity areas: livestock identification and traceability system (LITS), infrastructure development (e.g. loading ramps, holding grounds, feeder roads, and water sources, among others) and meat hygiene. All these components were focused on opening up the opportunity for Uganda to produce export quality beef and beef products and to be able to initiate exports. However, due to poor project funding in the national budget and the absence of an enabling regulatory framework, the project failed to realise its targeted outputs. For example, one of the expected results was to establish and operate the LITS systems supporting meat exports. However, the relevant legislation was not put in place.

During the fourth year (FY2018/19) into implementing MESSP, GoU introduced a new project, MOBIP. The MOBIP (“Developing a Market-Oriented and Environmentally Sustainable Beef Meat Industry in Uganda Program”) was initially conceived as a wholly GoU-funded five-year (2017-2022) project, using a holistic value chain

approach. The EU opted to co-fund the project within its National Indicative Plan (NIP) for Uganda. The holistic value chain approach sought to leverage an increase in the overall performance (in terms of production volume, quality, value addition, increased employment and environmental sustainability) of the Ugandan meat value chain. All the project’s activities under the three result areas (Policy, Productivity and Regulatory; Production, Productivity and Quality Assurance; and Marketing, Transportation and Value addition) are being implemented concurrently.

MOBIP was meant to address all the current problems and weaknesses facing Uganda’s beef sector. However, the programme is not accompanied by a robust institutional setting able to enforce it. For example, the current regulatory framework does not include clear and up-to-date legislation and standards such as the Animal Feed Bill, Animal Breeding (Amendment) Bill, the Animal Health Master Plan (Amendment), the Animal Identification and Traceability Bill, among others. Yet the LITS is critical in supporting access to beef markets.

Now in its final year of implementation, MOBIP has exposed some implementation weaknesses. MOBIP implementation lacked logical sequencing of component activities. The first and most crucial phase should have been the review and creation of an enabling regulatory and institutional framework. Second, much as the activity of developing legislation is handled directly by MAAIF, yet the MOBIP project document points out weak technical capacity of internal MAAIF staff in legislative and policy development. Additionally, legislation development and enactment process are lengthy, involving up to eight steps. There are four bills under development, and two are due for amendment, and these are highly unlikely to get enacted before the end of this project.

1.3.4 Developing and financing the beef meat value chain: The case of Namibia and Botswana

To draw feasible lessons for Uganda's beef sector, the study examines two cases from comparable countries, i.e. Botswana and Namibia. Both countries are signatories to the 2014 Malabo Declaration. Although the 2019 Biennial Review Report assessed all the Southern Africa regional countries as also being 'not-on-track', their average score of 41.1 percent was slightly higher than the East African region's (40%) score. However, the report points out that Botswana, Mozambique and Namibia reported growth rates of yields of national commodities of over 30 percent, which contributes positively to ending hunger. Additionally, Mozambique and Namibia are among the countries that have fully functional food safety systems.

1.3.4.1 Botswana beef sector

Since 1965, Botswana's state-owned Botswana Meat Commission (BMC) has done an impressive job of developing the country's beef meat sector. The country was the ninth-largest exporter to the EU in 2019. Botswana's beef value chain system is anchored on three main drivers; growth of the domestic market; system modernisation; and expansion of feedlot systems (FAO, 2013). However, between 2010 and 2018, earnings from the country's beef exports dropped from US \$130 million in 2010 to USD 80 million in 2018⁴. An investigative study of Botswana's beef export competitiveness revealed that although it has been the most competitive Southern African Development Community (SADC) beef exporter, comparing well with the leading world beef exporters, she has recorded declining competitiveness since the mid-1970s.

It was argued that the single-channel exportation arrangement, through a loss-making state trade, was a potential threat to beef export competitiveness. Further, recurrent outbreaks of cattle disease and drought and the rise in domestic demand for beef (coupled with stagnant domestic supply) adversely impacted beef export

competitiveness. A holistic assessment of Botswana's beef sector recommended combining market liberalisation policy reforms with better animal disease controls to improve all value chain actors (Kanar *et al.*, 2017). In February 2020, the Government of Botswana decided to liberalise its beef sector⁵. Government is poised to create a meat regulatory authority to facilitate the liberalisation of exports. The Botswana experience informs us of the importance of four key elements: i) a good animal health management framework; ii) a reliable supply of beef from organised beef producers to meet both the domestic and external market; iii) a sound food safety system; and finally, most important, iv) the need for an independent meat regulatory authority to independently ensure all the above three dimensions are functional.

The study picks specific lessons by focusing on Botswana's animal health management framework since Uganda shares similar beef production systems (pastoralism/communal and ranching). Cattle is frequently affected by the endemic FMD. Botswana is dissected by a network of veterinary cordon fences, which divide the land into four: an export zone, buffer zone, vaccination/surveillance zone and a wildlife/FMD zone. Over 80 percent of livestock reared for the commercial sector are grazed on communal land within these zones. The remaining cattle are raised on fenced tribal land or freehold farms, with the privatised land of the latter covering a meagre 6 percent of the country's total land area.

With a network of veterinary cordon fences, Botswana has successfully gained area-based disease freedom communal areas and provided regional and export marketing opportunities to marginalised pastoralists. This approach could be replicated in Uganda, where endemic diseases limit trade and export of beef products to high-value markets. Based on this model, Botswana is viewed as a disease management and marketing success story, including disease-free zone formation. To achieve similar success in Uganda, the issue of land, both communal and private mailo, to be dedicated to the various zoning measures needs special attention.

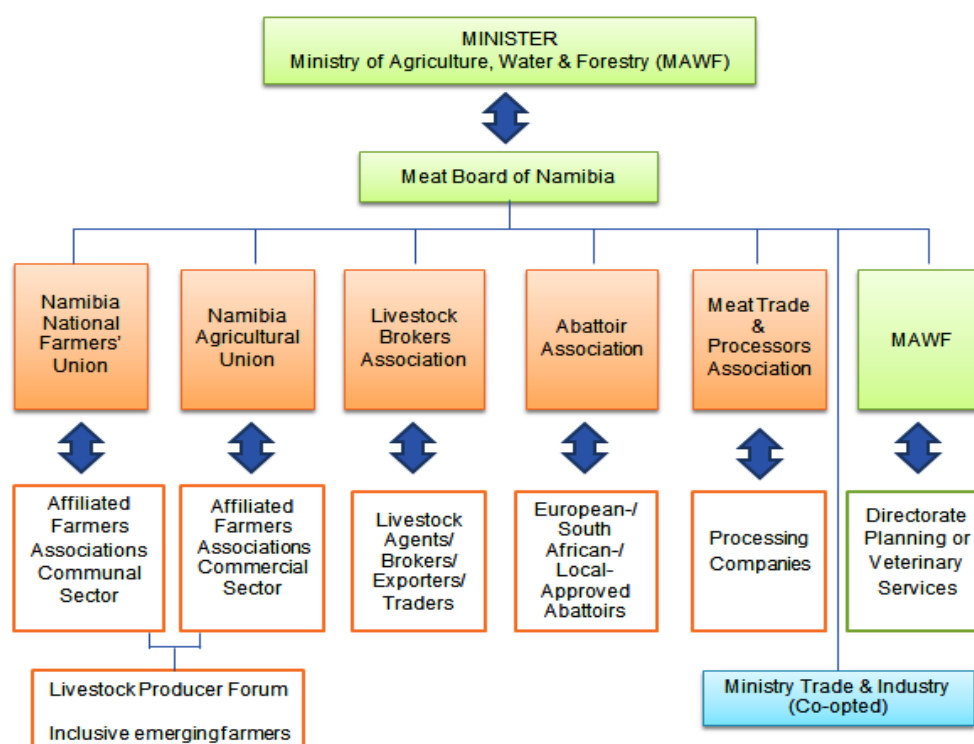
About 40 percent of Uganda's total land area is under the communal system, and the rest is private mailo/freehold land (Owaraga, 2012). In Botswana, 20 and 80 percent of cattle is reared on 6 percent (freehold farms) and 94 percent (communal). On the other hand, in Uganda, commercial ranchers constitute only 2 percent of the total cattle population and graze on the 60 percent freehold land. On the other hand, the pastoralists who hold around 90 percent of the national cattle population graze on less than 40 percent of the communal land available.

In light of growing urbanisation, Uganda has to adopt the semi-open or closed feedlot system with appropriate breeds if the country is to realise increased beef productivity and BIP objectives. As an immediate intervention, the pastoralists should be introduced to the feedlot system, including high yield breeds and appropriate animal nutrition. This points to the need for local financial institutions to finance this intensive production system, as has successfully happened in Swaziland (Dube *et al.*, 2019).

1.3.4.2 Namibia beef sector

Namibia's beef sector performance is another impressive example for Uganda to learn from. In 2019, Namibia exported over 46,500 metric tons of meat, with the foreign markets accounting for about 90 percent of the sales (UNCOMTRADE, 2019). Additionally, the country's beef value-added products have penetrated almost all the continents, including the strict EU, China and the United States. This impressive performance is heavily hinged on the institutional structure of their meat sector (Figure 11). Namibia's beef value chain actors are organised into clusters/associations whose operations are regulated by the Meat Board of Namibia (MBN). Established in 1935, the MBN is a statutory body that regulates the marketing and import/export of meat products in Namibia through i) permits, ii) levies (general fund – functions of board/ animal health fund for controlling of contagious animal disease), iii) managing the quality assurance scheme and standards, iv) managing promotion schemes geared towards protecting domestic industries; and v) advising

Figure 11: Namibia's meat sector institutional structure



Source: Adopted from Karita (2014).

government on policy issues after careful consultation with all stakeholders. MBN, as a regulatory authority, is critical, in ensuring food safety standards and producers concerns are adequately addressed.

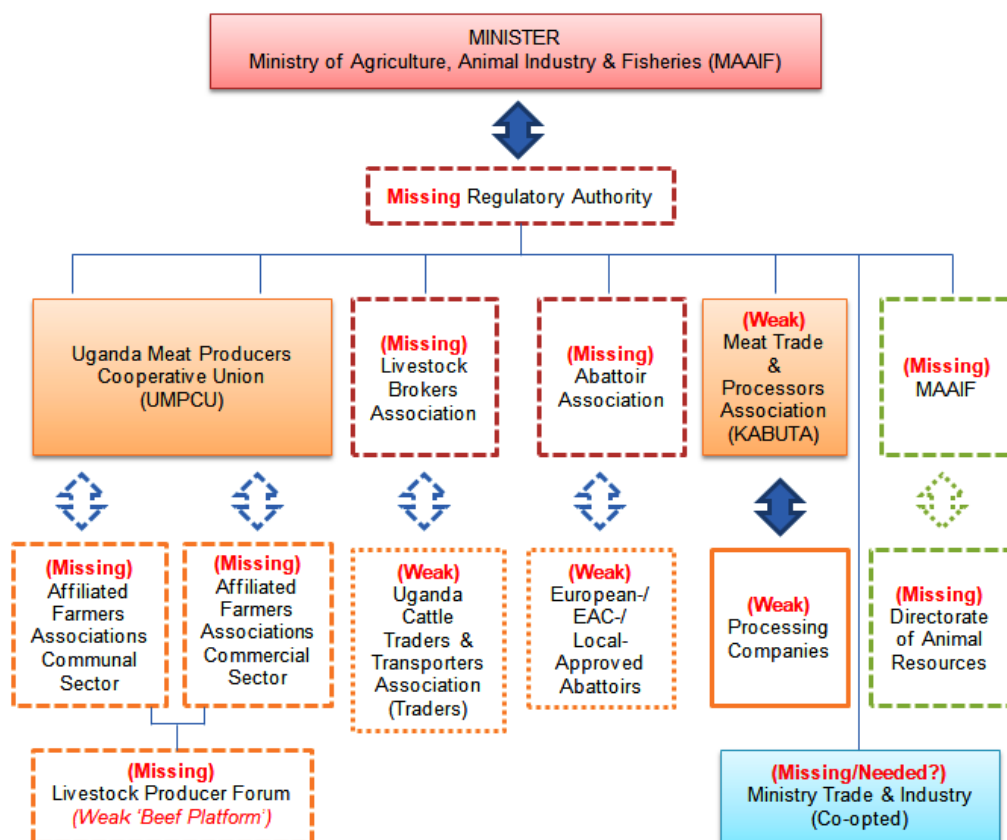
In addition to the stakeholders along the beef value chain being poorly organised, Uganda's meat sector also lacks a regulatory authority. Uganda's current production systems need to have both the communal (pastoralists and agro-pastoralists) and commercial farmers (ranchers and semi-intensive producers) clustered because their challenges and needs are quite different. An independent regulatory body could receive, keep track and address some of these concerns and eventually relay the rest of the issues to MAAIF for necessary action.

Indeed, the BIP also pointed out the need for getting the various chain actors organised into clusters/associations. In Uganda, under the on-going MOBIP action, a beef

platform has been created. Again this is not vibrant enough and involves a few heterogenic stakeholders in the value chain (abattoirs, processors and producers). Furthermore, much as there are discussions among stakeholders, these are not coherently organised; hence no critical action points are developed or followed through. While processors are also organised into an association in Namibia, including the state-owned Meat Corporation⁶ (Meatco), the Uganda case is entirely lacking, with processors operating unsupervised, and in silos. While the Uganda National Bureau of Standards (UNBS) is the only standards body, it lacks adequate human resources to effectively extend services to the meat industry.

A juxtaposed institutional structure (Figure 12) shows the numerous gaps and points of weakness in Uganda's meat industry, and which have definitely affected the performance of the beef sector.

Figure 12: Uganda's meat sector institutional structure juxtaposed onto Namibia's structure



Source: Author's construction basing on Namibia's current institutional structure.

On the other hand, the cattle traders and transporters are loosely organised under an umbrella body, the Uganda Cattle Traders and Transporters Association (UCTTA). However, UCTTA has not yet established the Uganda Chapter through which it could attain membership to the North and Eastern Africa Livestock Council (NEALCO, based in Kenya) and enjoy the benefits of the regional meat market. The butchers and processors are loosely organised under the Uganda Small Scale Industries Association (USSIA) as associate members of the Kampala Butchers Traders Association (KABUTA). KABUTA's operations are mainly visible and limited to Kampala and Wakiso districts only. KABUTA has about 1,682 butchers⁷ who are classified under four categories, with all of them operating in the Kampala Metropolitan Area.

1.3.5 Lessons learnt from Botswana and Namibia's institutional and regulatory frameworks

Botswana's livestock disease management provides major lessons for Uganda's beef sector. Botswana's successful disease management strategy under the context of their land tenure system akin to Uganda's is worth considering. Uganda has on several occasions failed to create DCZs and export compartments. The MAAIF (on-going MOBIP action) has no mandate over the current land tenure system but can smartly use the intervention to develop DCZs and export compartments that bring immediate economic benefits to the pastoral agro-pastoralists. The interventions would enable the country to market disease-free beef to the lucrative markets.

Namibia offers two great lessons to Uganda's beef sector. First, the importance of more orderly organisation of the value chain actors. Actors involved in the same activity within the value chain (producers, traders and processors) should be brought together/clustered. The second lesson is the need for a regulatory authority to effectively monitor and stabilise the meat sector for the benefit of the livestock producers and national development interests. Much as the GoU opted to rationalise the existing MDAs, including

banning the creation of authorities, empirical evidence and similar lessons justify creating an authority for the meat industry. Like coffee, meat is considered a national strategic commodity within the national development plans. Considering its unexploited potential, and the on-going investments under MOBIP, plus Uganda's relative comparative advantage in the region, an authority for the meat sector is highly deserved.

1.3.6 Conclusion and emerging policy options

Experiences from other African countries, show that the value chain finance approach is not a panacea for financing agriculture in general, and the meat sector, in particular. Sustainability of the specific value chain depends on how functional and effective the internal arrangements or linkages among the various operators are. Hence, the stronger the links, the more secure the flow of products and services within the chain will be. Apart from the internal arrangements, the sustainability of the chain will also be driven by external factors. These include the business environment, especially the availability of support services, the policy and regulatory environment, and the legal and contractual systems.

In light of the above, below are the emerging policy options

Emerging policy options

- i) There is an urgent need to establish an independent Meat Regulatory Authority that can act as a go-between GoU, MAAIF and the meat sector value chain actors. This Authority will focus on managing the animal health systems, quality assurance and standards. The Authority will enforce control the spread of contagious diseases, support the import/export of meat products and promote the development of a competitive meat industry. The Authority shall be financed using the collections from permits issued and levies imposed (under the Animal Health Fund).
- ii) The actors in Uganda's beef value chain need to

be better organised. Improving organisational arrangements requires; (i) the UMPCU to organise all pastoralists and agro-pastoralists into a cluster/association; (ii) UCTTA to enrol all traders and transporters; and (iii) the USSIA to create a cluster of beef processors and merge them with KABUTA, using the opportunities under MOBIP. Getting the value chain organised will; enable product bulking and strengthen bargaining power in transactions. More importantly, internal grouping also introduces peer pressure and group support, leading to improved adherence to buyers' quality requirements and management practices.

- iii) Finally, MAAIF's Directorate of Animal Resources (DAR) should take charge of reorganising the current beef platform (as described in recommendation 2 above). The reorganised actors should be supported to identify their joint challenges and to determine how they can all contribute (according to their capabilities) towards the strategies for improving access to livestock-relevant financial products and services. For example, under MOBIP, USSIA intends to import a newly-created model of beef processing equipment. The Processors' cluster could negotiate bulk procurement of this equipment for all those interested, reducing the amount each would pay if they purchased individually.

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- 4 <https://www.thebeefsite.com/news/55021/botswana-to-liberalise-beef-exports-says-minister/>
- 5 <https://www.reuters.com/article/botswana-beef-idAFL5N2AS75H>
- 6 Meatco is both a processing and marketing enterprise.
- 7 Membership data shared by the Chairperson of KABUTA, May 2021.

Endnotes

- 2 https://www.trademap.org/Country_SelProductCountry_TS.aspx?nvpm=1%7c800%7c%7c%7c02%7c%7c%7c2%7c1%7c1%7c2%7c2%7c1%7c2%7c1



CHAPTER FINANCIAL INSTITUTIONS OPERATIONS

2.1 WILL THE LEASING FINANCIAL PRODUCT BOOST AGRICULTURAL FINANCE IN UGANDA?

Richard Wangwe¹



2.1.1 Background

In Uganda, agricultural production activities are dominated mainly by smallholder farmers engaged in food and cash crops, horticulture, fishing and livestock farming. Farmers that are categorised as subsistence are estimated to deliver between 75–80 percent of the total agricultural output and marketed agricultural produce. Despite their importance, 95.8 percent of farmers in Uganda use rudimentary tools in farming owing to inability to afford improved agricultural tools (UBoS, 2010).

For many microbusinesses in the agricultural sector, purchase of new machinery or equipment from lending institutions is a challenge. Financial institutions are often unable or unwilling to lend the amounts and offer extended grace and repayment periods needed for machinery/equipment acquisition. Long term financing from banks and other formal sources is usually not feasible since

lenders require well documented; collateral, credit history and financial statements.

Leasing could provide an effective alternative since it helps clients and financial institutions overcome the difficulties of lack of traditional collateral. Leasing is a contract through which an owner of an asset (the lessor) allows its use by another party (the lessee) in exchange for regular payments over a fixed term. The attraction of leasing over traditional lending is that the asset itself acts as collateral. The lease focuses on the future cash flows to be generated by the financed asset. Though it offers advantages to those with limited or no collateral (especially low income, small scale operators), leasing is more commonly used in developed rather than developing countries.

In Uganda, small inroads have been made into providing leasing as a financial product. Accordingly, the option constitutes less than 5 percent of the total bank portfolios in Uganda. This is mostly attributed to the fact that it is

¹ Consultant and Former Head of Agriculture Department, Stanbic bank Uganda, Kampala, Uganda (richard.wangwe@gmail.com)

the only form of credit in Uganda that is taxed and lacks definitive legislation. According to the Uganda Leasing association, total lease disbursement over the last three years have increased from UGX 228 Billion in 2018 to UGX 328 Billion in 2021.

However, this has been dominated by industrial/construction equipment and transport, with the smaller agribusinesses struggling to access equipment through leasing. Stanbic Bank, DFCU Bank, KCB, Opportunity bank and Centenary Bank, offer agribusiness-related leases. The most popular equipment are tractors, and agro-processing equipment. However, due to the technicalities² involved in the leasing process, some lenders prefer to offer equipment loans, rather than leases.

This article examines the leasing financial products being provided to the agricultural sector in Uganda. The article reviews the trends in the uptake of available leases, highlights the terms and conditions of the leasing products, examines the constraints to leasing in Uganda and analyses financial and operational lease products.

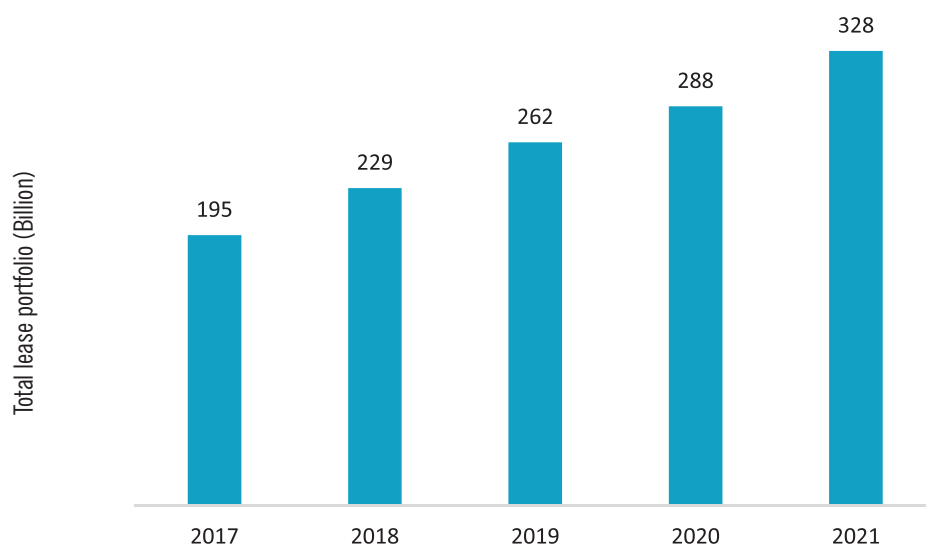
2.1.2 Overview of the lease product in Uganda

2.1.2.1 Trends in the uptake of general leases

Uptake of leasing for agribusiness is on the rise (Figure 13), with several financing institutions offering leases as a product. Due to the technical aspects of underwriting leases, some institutions prefer asset acquisition loans governed by the current banking laws rather than dealing with the technical side of leasing.

One of the major constraints to the growth of leasing in Uganda is the limited or absence of local leasing expertise in the market, lack of software for managing leases and scant knowhow in lender institutions. This explains why lenders prefer to offer asset loans rather than leases. To reduce the capacity gaps, some agricultural equipment companies such as Mascor³ have partnered with lending institutions (Opportunity Bank and Post Bank) to finance the leasing/acquisition of tractors at subsidised rates. These are backed by both the ACF and interest refinancing by Mascor.

Figure 13: Agricultural lease disbursement in Uganda



Source: Authors' construction based on data from the Uganda Leasing Association

Meanwhile, institutions with proper accounting practices and technical experience in leasing like; Stanbic, Absa, KCB, DFCU banks, have continued to underwrite leases for agriculture processing and farming equipment. Whereas in normal circumstances, the leased equipment acts as collateral with no further collateral required, agricultural micro-leases may at times require the lessee to; either provide additional fixed collateral; or increase their contribution to up to 50 percent of the cost of the equipment. This is done to cover risks relating to uncertain

life span of the equipment, or when the equipment has no registered and/or acceptable ownership title.

2.1.2.2 An overview of general terms and conditions for agribusiness leases in the market

Table 2 summarises the leasing product terms and conditions for the small and medium-sized agribusiness enterprises in Uganda.

Table 2: Terms and conditions for agribusiness leasing product

Accessibility	The lessor has to prove that the cash flow from operations is sufficient to cover the lease service payments. This enables new businesses, with limited capital and credit history, or small businesses without a history of financial statements, to quickly boost their operations. With a lease, the lessee does not have to lock up or divert their working capital in the acquisition of equipment; instead, the leased equipment, if adequately put to use, will adequately repay the lease with ease
Repayment period	Leases provide longer term financing, often with terms from one to five years. The repayment plans should be in line with either the harvest season (if the source of repayment is the crop or the ploughing/processing plant). Flexibility/timing of lease rental repayments to harvest and processing times makes micro leasing attractive
Interest rate	16-26% p.a. on Uganda Shillings; an average of 18% p.a. for transactions over 200M/- and higher interest rate for smaller leases
Processing time	Owing to the collateral-backed nature of lease financing, less analysis is required of the customer's creditworthiness, assets or capital base; less time is needed for assigning other collateral, and more straightforward documentation can be used.
Nature of equipment	Any durable asset, plant, equipment, machinery, commercial vehicles, business cards, computers among others. In case of specialised equipment that cannot be easily resold or repossessed, locally substandard fabricated equipment, the lessee may be required to give additional collateral, or a substantial deposit, say 50% of the cost
Repayment terms	Lease payments can be structured to mirror individual cash flow patterns of the lessee in contrast to bank loans, which have standardised repayment schedules. This makes repayments of the lease much more manageable, for it is linked to periods of inflows of cash flows.
Cash down payments	10-30% of equipment cost. This depends on the lifespan of the equipment and ease of resale. The longer the life span of the equipment, the easier the resale, the lower the contribution.
Security and asset ownership	The lessor maintains full ownership of the asset throughout the lease. Since lessors own the assets and use the leased asset as the primary security, SMEs can still be eligible for lease financing when bank loans are unavailable.
Option to purchase	Exercised by lessees at the end of the lease at up to 10% of the cost. This, however, is on the high side, and SMEs should negotiate for at least 1% to meet the legal requirements of transferring ownership.
Insurance and maintenance	Commercial banks insure assets and pass on the cost to the lessee; maintenance is the lessee's responsibility.

Source: Author's compilation

2.1.3 Leasing classification

Financial versus operational leasing products

In leasing, the lessee amortises (pays off the lease) over an agreed period and instalments. Financial leases differ from operating leases in that financial leases do not embed maintenance fees in the lease payments. Most of the asset cost, maintenance and insurance costs rest with the lessee. Nearly all risks associated with owning an asset are transferred to the lessee without actually transferring the title. At the end of the lease period, the lessee has the option to purchase the asset for a token price.

The operating lease allows for both financing and maintenance, in which lease payments include financing charges and maintenance costs. In this case, the lessee does not own the equipment but instead makes use of the equipment during the agreed time and purpose. The lessee includes maintenance charges directly with lease payments. At the end of the lease period, the lessee retains the equipment. A good example here is vehicles and office equipment, where at the end of the lease period, the lessee takes back the leased equipment.

Further, the lessee is obliged to abide by the leasing agreement, and prepayments or early write-offs may be accompanied by penalties equivalent to estimated interest that could have been collected over the remaining period of the lease. To avoid this, the lessor and the lessee should agree in writing that they will not be any penalties, or if they are any, they should be limited to a small percentage of the outstanding lease amount, for example, a 10 percent. This option is invariably used because the asset's residual value at the end of the lease is significantly higher than the original price.

Lease write off

With regards to finance leases, the lessee can purchase the asset for a token price at the end of the lease period. This token fee is usually agreed upon at the beginning of the lease and can range from 1 percent of the original total

lease to as small as one shilling. The 1 percent payment is to fulfil the legal requirements for the transfer of equipment ownership from the lessor to the lessee. Regarding the operating leases, the lessor retains the equipment at the end of the lease period.

2.1.4 Constraints to development of the leasing product in Uganda

Legal and regulatory environment: Uganda has no clear lease policy, and leases operate under general banking laws, a situation that presents enforcement challenges. The existing legal framework focuses on loan recovery and when applied to leases, it strains lessor-lessee relationships and may end up in failure in recover.

Weak economic conditions: Low levels of productive capacity makes it difficult for borrowers (lessees) to generate sufficient cash flows to repay lease rentals. It is even worse with rain-fed agriculture, which on one hand, results into bumper harvests and price collapse in seasons with good rains seasons, and on the other hand, crop failure and animal deaths during prolonged dry spells.

Limited local capacity and expertise in leasing: Lending institutions often lacks technical skills to design and operate large leasing schemes. One of the major constraints to the growth of leasing in Uganda is the limited or absence of local leasing expertise in the market. This has led to some lenders preferring to offer asset acquisition loans instead of leases.

Taxation

Most SMEs are not conversant with current tax laws. Even those who know, find the whole process of claiming back the VAT or capital allowances very cumbersome. There is need to provide training to SMEs on the facts and benefits of VAT registration, VAT administration and, for those operating below the minimum threshold, a waiver of VAT on lease rentals to SMEs.

The specific tax aspects that should be considered to

promote growth in both leasing and financial services include;

- i) The current tax legislation needs to allow lessees to claim capital allowances on the leased assets. As an incentive, tax laws should allow lessors to claim capital allowance.
- ii) VAT is assessed on the entire leasing transaction and is passed onto the lessee. However, the majority of lessees cannot claim credit for their VAT expenses. This is because they either fall below the VAT registration thresholds or are in the exempt category. As a result, leasing transactions cost even more for those businesses least able to afford them.

Damage to the leased equipment. In some cases, the equipment is not adequately maintained particularly when the ownership of the equipment is not transferred to the lessee at the end of the lease. There is a need for proper end-user training accompanied by regular inspection to ensure the equipment is well maintained. The lessee, should also be made aware that they might eventually own the equipment.

technology.

- iii. Lending institutions should be encouraged to take on the sale and lease back of equipment to enable borrowers to release capital, instead of being locked up in the asset, can be used as working capital.

Endnotes

- 2 One of the challenges is insufficient leasing expertise related to the regulatory, taxation, underwriting foreclosures and repossession, to mention a few
- 3 Suppliers of John Deer Tractors in Uganda

2.1.5 Conclusion and policy options

- i. Ensure that the current tax legislation allows lessees to claim capital allowance on leased assets and are eligible for VAT refunds on the entire lease transaction. These two measures are fiscal incentives aimed at attracting SME financing. Since leasing is a proven credit tool with a high development impact, lessors should be allowed to claim the capital allowances on finance lease transactions.
- ii. Increase awareness of leasing through joint sales awareness campaigns for both the providers and financiers of the assets. Business associations can help to increase market knowledge (local and international via the internet) and facilitate skills and technology transfer through supply chain linkages and the adoption of appropriate

2.2 HOW HAS TECHNICAL ASSISTANCE OFFERED IN THE PROFIRA PROJECT AFFECTED THE GOVERNANCE AND GROWTH PERFORMANCE OF SACCOS IN UGANDA?

Colin Agabalinda¹



2.2.1 Introduction

Financial inclusion has remained one of the key pillars of Uganda's efforts to eradicate poverty. SACCOs have been a major focus of Government's efforts in improving rural finance intermediation in Uganda. However, studies from as far back as the 1990s and early 2000s concluded that SACCOs' performance and development impact was marginal, with a questionable image among the rural population in terms of institutional sustainability and image. SACCO growth, performance and sustainability have been associated with low quality management and governance, and these were considered lacking in many SACCOs throughout Uganda.

The International Fund for Agricultural Development (IFAD), building on a strong body of experience in the sector, supported the GoU in 2013 to design the Project for Financial Inclusion in Rural Areas (PROFIRA). The

MoFPED implemented this project worth USD 36.6 million over seven years. One of the vital investment components of the project was designed to support stronger and intermediate SACCOs with capacity building (CB) of their boards, management, and members. The two other project components include establishing and strengthening Community Savings and Credit Groups (CSCGs); and supporting the policy, regulatory, and institutional support. CB for SACCOs has been provided through training and technical assistance in seven thematic areas, including (i) Financial literacy and savings mobilisation, (ii) Cooperative governance, (iii) Business skills development, (iv) Savings and other product development/refinement, (v) Financial management and accounting, (vi) Strategic planning; and (vii) Credit and default management. The CB aims to strengthen the institutional capabilities of SACCOs so that they can expand sustainably and serve more members within their communities.

The SACCO strengthening sub-component initially targeted 500 SACCOs for CB support. The project developed

¹ Component Manager - SACCO Development & Strengthening Project for Financial Inclusion in Rural Areas. Ministry of Finance, Planning & Economic Development (agabacolin@gmail.com)

selection criteria for eligible beneficiary SACCOs from the national register of SACCOs generated by the 2013 SACCO - Census conducted by the MTIC. The criteria required SACCOs to be: i) Registered and operational with a known physical address/office premises in a rural area; ii) have at least 3 management staff and a fully constituted board in place; iii) have a minimum of 150 fully paid up members; iv) have an operational self-sufficiency ratio of at least 50 percent. This criterion was deemed appropriate to generate a shortlist of SACCOs that though not yet sustainable, would potentially become financially strong and sustainable institutions capable of increasing their outreach to rural populations. A total of 453 SACCOs out of the 2,017 SACCOs were found to meet the criteria and were accordingly selected. The project contracted six service providers (SPs) to provide technical assistance to the 453 SACCOs over a period of four years. The SPs included private sector consultancy firms including Best Africa Consult Limited, DEMIS Consult Limited and FRIENDS Consult Limited; as well as industry networks and associations including - Uganda Cooperative Savings and Credit Union (UCSCU); Uganda Cooperative Alliance (UCA); Association of Microfinance Institutions of Uganda (AMFIU).

This article discusses the impact of capacity building through training/technical assistance on quality of SACCO governance and growth. Lessons from the PROFIRA experience could inform future interventions and policies. The article covers; training and technical assistance approaches used; measurements, analyses, and results of the capacity building; and lessons learnt, conclusions and recommendations for policy and practice.

2.2.2 Delivering capacity building to SACCOs: The approach

2.2.2.1 Technical assistance interventions

CB training and TA were delivered in seven thematic areas identified—during the design mission—as critical for SACCOs' sustainability in Uganda. Therefore,

the training/TA content was developed by the SPs, with guidance from course outlines provided in the project design document (IFAD, 2013). Nonetheless, the project entered a memorandum of understanding (MOU) with the Uganda Cooperative College in Kigumba (UCCCK) to standardise the SP training modules and develop training guides and manuals. The key topics for the first three modules were designed to equip the members, staff and Board of SACCOs as follows: Module 1 - Financial literacy and savings mobilisations that were aimed at improving the personal financial behaviour and savings promotion; Module 2 - SACCO Governance emphasised operational, technical and financial controls linked with good record keeping; and Module 3 - Business Development Skills – included general business and marketing skills with a specific focus on farming and processing in locally important agricultural value chains.

On the other hand, the other four training modules targeted SACCO Boards, supervisory committees and management. These included: Module 4 - savings and other product development/refinement – for expanding the range of savings, loan and other products; Module 5 – Financial Management and Accounting – with a focus on book keeping, control and financial management aspects; Module 6 - Strategic Planning – with a concentration of development of simple SACCO business plans and setting operational and financial targets; and Module 7 - Credit and default management which focused on loan portfolio deterioration and how to address it. Additionally, a total of 200 SACCO managers were sponsored by the project for the long term UCCCK diploma course in cooperative finance and customised courses by UCCCK for effective SACCO implementation and management-oriented toward cooperative principles.

The training mentioned above and technical assistance interventions were considered very appropriate for the Ugandan context. In particular, at the project design, steps were being taken towards passing a law to establish a regulatory framework for Tier IV institutions. In addition, benchmarks were being defined to identify SACCOs to be

licensed directly by the BoU or the Uganda Microfinance Regulatory Authority (UMRA). These would, in turn, be supervised either by those institutions or (for the smaller SACCOs) by the Registrar of Cooperatives. Therefore, the seven thematic areas of intervention were considered the most appropriate modules to strengthen potentially sustainable SACCOs so that they could be ready to comply with prudential regulation, expand their outreach and widen their members' access and usage of financial services as well as attain operational and financial sustainability. The project's results framework sought to measure the growth in membership (outreach), share capital, savings and loans (usage) and sustainability of the SACCOs.

2.2.2.2 Technical assistance delivery channels

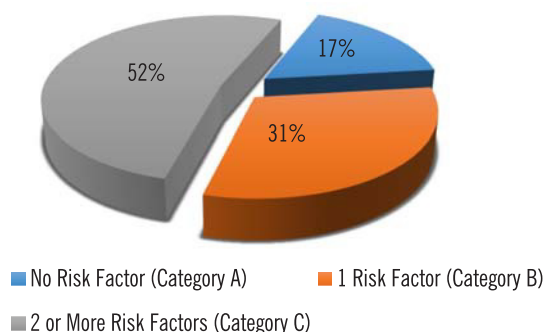
The approach used to deliver CB required SPs to provide a combination of on-site and off-site training workshops followed by routine mentoring and technical assistance (TA). The training workshops were all designed to be completed within the first contractual year, with training work plans developed by SPs consultatively to ensure a systematic sequencing and scheduling of training. The project management unit working closely with UCCK provided oversight and coordination to promote synergy and learning across SPs.

At mid-term review (MTR) of the project in 2018, revealed that 80 percent of planned core training had been completed within the first two years of the contracts with SPs. The impact of the training showed positive results, which indicated that project targets would be met for growth in members, capital, savings and loan portfolios. Nevertheless, significant progress seemed to be only concentrated in less than half of the SACCOs being supported. The other half of the SACCOs showed no response to the training interventions. This was due to four critical risks affecting SACCO operations and constraining their ability to benefit from the project training interventions:

- i) Persistent default, with Portfolio at Risk (PAR) greater than 30 days above 20 percent and as high as 100 percent in some, often involving board members.
- ii) Poor governance, including failure to have audits and annual general meetings (AGMs), as mandated by the Cooperatives Act, and conflict between board and management.
- iii) Fraud and embezzlement perpetuated by some managers and board members.
- iv) Low business volumes, with fewer than 10 daily transactions, suspension of saving and loan repayment due to default, fraud and poor governance, rendering the SACCOs operations non feasible.

Figure 14 shows that 17 percent (218) of the SACCOs had none of the four problems (Category A) and 31 percent (Category B) experienced at least one of the four risks. In addition, 52 percent (235 SACCOs) in Category C) PROFIRA-supported SACCOs suffered two or more of the four registered problems.

Figure 14: SACCO categorisation based on prevalence of risk factors



Source: PROFIRA MTR - Report

In instances where members had lost money through fraud, confidence in board and management had been eroded. Therefore, training in financial literacy and savings mobilisation would not be sufficient to convince members to continue saving. Likewise, inadequate liquidity (to meet SACCO costs, pay out savings and provide loans) brought about by fraud and default had paralysed the operations

of some SACCOs and thus compromised their ability to attend the training programs.

Similarly, poor governance characterised by over domineering and inflexible board members hindered SACCOs from putting into practice, the knowledge acquired from the project training. Therefore, IFAD and GOU decided to refocus all further SP-conducted training during the remaining contract period towards Category A and B SACCOs to maximise gains to project growth targets through them.

The reduction in the number of SACCOs supported by SPs made it feasible for them to provide custom-tailored training directly to each SACCO rather than continue to deliver generic group training in centralised workshops. The shift in the approach aimed to intensify resources to ensure closer interaction between the contracted SPs and the SACCOs for better results. The project then worked proactively through MTIC and UCCK to address the specific problems in the Category C SACCOs, including support for investigative audits and development of turn-around plans. Therefore, the pre-MTR PROFIRA experience revealed that to attain quality growth (in SACCO performance) from training and technical assistance, the project would have to focus on well-established and functional SACCOs.

2.2.2.3 Impact measurement

Three key parameters were measured and observed using data generated throughout project implementation: quality of governance, training and technical assistance, and growth performance of the SACCO.

- i) **Quality of governance** was measured using six-item statements on frequency and timeliness of annual general meetings, external audit reports, supervisory committees, the size of the board, board gender diversity, and board insider borrowing. The responses were anchored on a six-point Likert scale in which respondents stated their degree of agreement or disagreement with the statements, with 1 = strongly disagree, 2 =

disagree, 3 = slightly disagree, 4 = slightly agree, 5 = agree, and 6 = strongly agree.

- ii) **Training/education** was measured using seven-item statements on the adequacy of the seven training modules provided to the SACCOs, i.e. Module 1 – Financial Literacy and savings mobilisation, Module 2 – Business Skills Development, Module 3 – Cooperative Governance, Module 4 – Financial Management, Module 5 – Strategic Planning, Module 6 – Savings and Other Product Development, and Module 7 – Credit and Default Management. Responses were anchored on a six-point Likert-type scale of 1 (lowest) to 6 (highest)
- iii) SACCO growth performance was measured using five items: annual average growth in membership, share capital, savings, and loans, as well as the annual average operating self-sufficiency ratio between 2016 and 2019. The responses were anchored on a six-point Likert-type scale with 1 representing an annual average growth rate of less than 2 percent; 2 being 2 – 4 percent; 3 = 4 – 6 percent; 4 = 6 – 8 percent ; 5 = 8 – 10 percent, and 6 representing a growth rate of over 10 percent consistent with the project result's framework targets.

Therefore, data obtained from the project Monitoring and Evaluation system was analysed to test the hypothesis that *capacity building training and technical assistance can positively impact the quality of governance, growth and performance of SACCOs in Uganda*. To test this hypothesis, data was obtained from 72 percent (312 out of the initial total of 435) PROFIRA-supported SACCOs. These included categories A, B, as well some few promising ones from Category C.

The Pearson correlation coefficient (r) was used to determine the relationships between the main variables. The analysis therefore, sought to establish whether the training and technical assistance interventions affected the quality of governance and the growth performance of

SACCOs. Furthermore, hierarchical regression was used to estimate how much of the changes in SACCO growth and performance were occasioned by the training and technical assistance and the quality of governance of the SACCO.

2.2.3 Findings

2.2.3.1 Membership

As shown in Figure 15, the total membership of the 312 SACCOs grew from 561,649 to 910,380 in the period 2016 to the end of 2019, representing a 62 percent growth. The annual average growth of 18 percent against the project targeted yearly growth of 10 percent is partly a result of the training and TA interventions on financial literacy and savings mobilisation.

2.2.3.2 Share capital

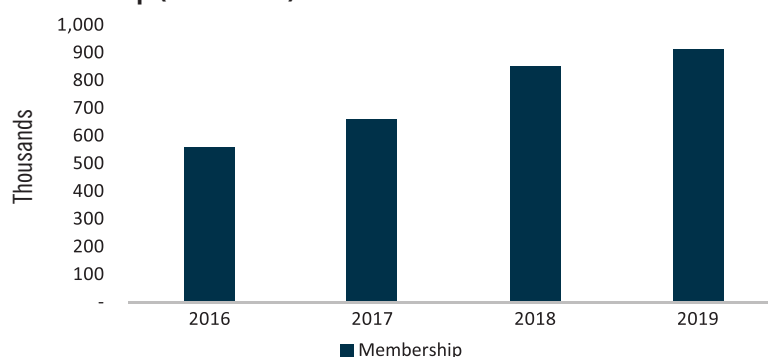
Figure 16 shows that share capital grew from UGX 60 billion in 2016 to 103 billion in 2019, representing a 70

percent growth, with annual average growth averaging 20 percent over the same period. The annual average growth in share capital also exceeds the 10 percent targeted by the project. It is also partly attributed to the training and TA interventions on financial literacy and savings mobilisation and the other modules on SACCO governance and business development skills that targeted SACCO members.

2.2.3.3 Savings

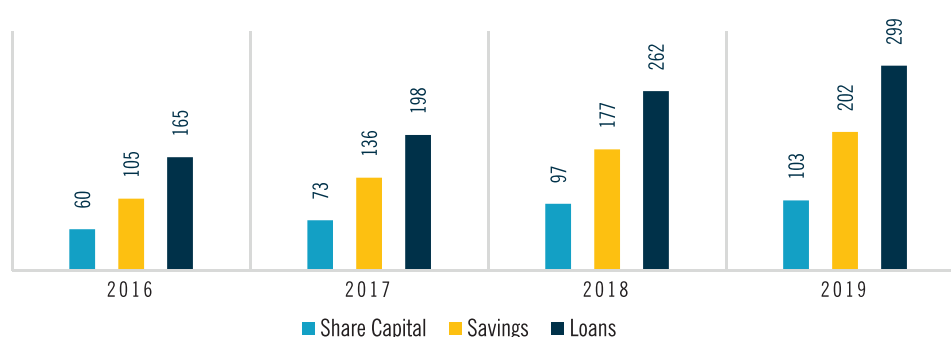
Savings grew from UGX 105 in 2016 to 202 billion (93 percent) in 2019 (Figure 16) with an annual average growth at 25 percent over the same period. This is above the project's annual projected growth of 10 percent. Growth in membership, share capital and savings can be partly attributed to the training and TA interventions on financial literacy and savings mobilisation, SACCO governance and business skills development. The three modules targeted existing as well as potential members of the communities.

Figure 15: Trends in membership (2016-2019)



Source: PROFIRA MTR - Report

Figure 16: Trends in share capital, saving and loans (2016-2019)



Source: Authors' construction based on PROFIRA Monitoring and Evaluation Dataset

2.2.3.4 Loans

Loans grew from UGX 165 billion in 2016 to UGX 299 billion in 2019, representing an 81 percent increase (Figure 16), with an annual average growth of 22 percent over the same period, well over the projected annual target of 10 percent. The growth in the outstanding loan portfolio is partly a result of increased membership but also because of an increase in the savings and share capital mobilised. The credit and default management training also contributed to improved efficiency in the loan application, appraisal, and disbursement in the SACCOs.

2.2.4 Lessons learnt

CB training and TA is more suitable and more likely to benefit SACCOs that are already well-governed.

Utilisation of the knowledge garnered through training and TA towards the growth and sustainability of SACCOs is mainly dependent on their quality of governance. Poor leadership/governance, which lead to unprofessional practices (fraud, default) ultimately lead to inadequate savings and lending, negatively affecting the volume of business in SACCOs.

Training modules are complementary. For instance, the credit and default management intervention is effective when complemented with financial management, accounting as well as SACCO governance. Therefore, the multi-stakeholder approach, which involves using several SPs to deliver different training modules, must be well coordinated and sequenced such that modules are delivered synergistically and appropriately for maximum efficiency.

Categorisation of SACCOs according to their levels of performance is key for CB interventions. Category A and B, SACCOs were better placed to absorb and benefit from TA. In contrast, the Category C, SACCOs required additional interventions such as special investigative audits, support for extraordinary general meetings and member cooperative education before the modules (planned under

PROFIRA) could be meaningfully introduced.

Fewer good quality SACCOs can improve outreach sustainably. PROFIRA's post-MTR focus has been on fewer, well performing (Category A and B) SACCOs. Though fewer, the SACCOs targeted post-MTR still attained and even surpassed the project's outreach targets. Growth in membership and business volumes can be achieved with well governed and managed SACCOs.

2.2.5 Conclusion and policy options

Overall, the PROFIRA experience indicates that capacity building in form of training and technical assistance is essential for the growth performance of SACCOs. However, unless SACCO board management and membership are committed to implementing the skills imparted, training and technical assistance may not always translate into growth (in the key parameters of membership, share capital, savings and loans). After the training, effective SACCO regulation and supervision can ensure that the knowledge acquired is put into practice. The PROFIRA pre-MTR experience reveals that poorly governed SACCOs (those with fraud, high default and low business volumes) were either non-responsive to the capacity building efforts or the efforts were not effective enough to change the way they were operating. The change in strategy during post-MTR, to focus on better performing SACCOs, yielded better SACCO performance and growth. PROFIRA design therefore can be construed to have inadvertently targeted only the better performing SACCOs.

The passing of the Tier IV Act of 2016 is a major milestone and the Act has already enabled the establishment of the UMRA. Regulation of SACCOs by UMRA includes the screening of SACCO board members, aimed at ensuring professional and prudent management and governance practices. To ensure that skills attained are utilised in future SACCO capacity-building, the objectives of such capacity building should be for the supported SACCO to be licensed as a Tier IV, MDI or bank. This means that the SACCO will have met the requirements of being licensed

either under the Tier IV Act of 2016, and for the larger SACCOs, the MDI Act (1993 and its amendments of 2004) or the Financial Institutions Act of 2004 respectively.

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CHAPTER INNOVATION AND DIGITALISATION

3.1 THE CURAD MODEL FOR FINANCING START-UP AGRIBUSINESS ENTREPRENEURS IN UGANDA

Moses Katta¹, Beatrice² Nginah, Edmond Nsandhu³



3.1.2 Background

According to the NDP III, Government of Uganda is committed to supporting agro-industrialisation through; i) strengthening the framework and mechanisms for guiding and coordinating research, innovation, and development of appropriate technology through development of incubators and technology parks (Innovation-based Incubation Centres); and ii) strengthening system capacities to enable and harness benefits of coordinated private sector activities including incubation centres that support the growth of SMEs in strategic areas. Agribusiness incubation, therefore, is seen as an engine of economic growth for the creation of sustainable enterprises.

Agribusiness incubation is one of the key pillars of the African Union CAADP agenda. The Consortium for enhancing University Responsiveness to Agribusiness

Development Limited (CURAD) is at the forefront of its implementation in Uganda. CURAD is an innovative autonomous agribusiness incubator established by Makerere University, National Union of Coffee Agribusinesses and Farm Enterprises (NUCAFE) and National Agricultural Research Organisation (NARO). CURAD was started in 2012 with support from DANIDA, as a public-private partnership initiative to support farmers, farmer organisations, agro entrepreneurs, young men and women students, graduates, skilled and unskilled, start-ups and SMEs to grow and develop their business ideas. It is driven to produce innovative young entrepreneurs and agribusiness leaders who champion agricultural enterprises' productivity and profitability to spinoff new enterprises. In this regard, CURAD is geared towards creating jobs and boosting incomes within the agricultural sector (Ogutu and Kihonge, 2016).

This article aims to share CURAD's experience in financing start-up entrepreneurs through agribusiness incubation in Uganda. The article specifically documents the CURAD business model, its performance in the last eight years,

¹ Business Manager, Consortium for Enhancing University Responsiveness to Agribusiness Development, info@curadincubator.org

² Monitoring and evaluation officer, Consortium for Enhancing University Responsiveness to Agribusiness Development, info@curadincubator.org

³ Food scientist, Consortium for Enhancing University Responsiveness to Agribusiness Development, info@curadincubator.org

lessons learnt and policy recommendations for improving the entrepreneurial ecosystem in Uganda.

3.1.3 The CURAD agribusiness incubator business model

3.1.3.1 Structure of the CURAD agribusiness incubator business model

CURAD offers incubation services, namely; production, processing, distribution and marketing across the entire country, covering a wide range of agribusiness enterprises such as; coffee, fruits and vegetables, juice making, apiculture, cereal and confectionery and livestock production, processing, distribution and marketing. The model involves 3 main stages;

(i) Enrolment of incubatees

The main recruitment avenue for entrepreneurs at CURAD is the National Agribusiness Innovation Challenge. This is an annual competition that enables young innovative and entrepreneurial-minded individuals to submit their business ideas and concepts for support. The innovation challenge is designed to create a platform for harnessing talent, showcasing excellent innovations among Ugandan youth and women, and inspiring others to get involved in agribusiness. Other recruitment methods include; walk-in, referrals and recommendations. The enrollment criteria for applicants include but are not limited to; i) viability and sustainability of the business idea; ii) innovativeness, uniqueness and attractiveness of the venture; iii) market opportunities and competitiveness; iv) potential to create additional jobs; v) gender and environmental considerations; and vi) scalability and impact.

ii) The incubation process

CURAD incubation process incorporates three main phases. The initial stage is the pre-incubation phase and involves recruitment, business diagnosis, development of incubation schedule, and pretesting of business ideas and models. This phase enables the identification and jumpstarting of the innovative and entrepreneurial

spirit among the target clientele. The second stage is the incubation phase, where entrepreneurs are further supported to develop their business processes and systems. On average, the entrepreneur at this stage takes three years to graduate, and at the end of this phase, an entrepreneur is expected to have a certified product with a tested market. The third and last stage is the post-incubation phase, where entrepreneurs who have reached the maturity stage are gradually supported for acceleration.

iii) Partnerships

Over the years, CURAD has partnered with both public and private institutions to finance start-up entrepreneurs. The partners include Government, MDAs,³ development partners including, DANIDA, USAID, EU, World Bank, SIDA, Rain Forest Alliance, FARA and aBi Development Limited. These partners have provided support such as; i) capital investment for land and machinery acquisition; ii) working capital; iii) working spaces for production and certification; and iv) business development services. Whereas CURAD has put in tremendous efforts to advocate and create awareness for incubating start-ups in the country, stakeholders have limited commitment, mainly caused by knowledge gaps and a non-supportive government policy.

3.1.3.2 Operation and conduct of the CURAD business model

The CURAD approach is open for all smallholder producers, start-ups, SMEs and other players in agribusiness. However, market failures have been one of the major bottlenecks faced by start-ups and SMEs in agribusiness. CURAD, one of the players for enterprise development, has adopted a market-led approach to incubation to mitigate some of the market failures. Among the causes of market failures that CURAD is addressing include; limited access to timely and accurate market information, poor contract negotiations and implementation, high transactions costs, failure to comply with standards, and poor quality products.

Cognisant of the need for market access and market information, the first stage of the model is to secure the market. Substantial efforts are put in place to ensure that start-ups access relevant and timely market information before producing products. CURAD also provides an environment that enables small entrepreneurs to know the preconditions to penetrate better/ premium markets. CURAD emphasises supporting start-ups to build producer-buyer relationships through forward-contracting, quality and quantity control, and price negotiations. In addition, logistical support services are provided to ensure that both foreign, regional and domestic markets are explored.

The second stage of the model (incubation) involves recruiting innovative entrepreneurs with economically viable businesses and supporting them to produce according to market requirements. At this stage, specialised training, prototyping including developing and testing the idea or product, business diagnosis and financial modelling to determine profitability and viability of the concept, infrastructural support and clustering are undertaken to ensure consistency in quality and conformity to standards. This stage also includes value addition of some products that are not exported in the raw form to reduce wastage and to provide alternative sources of income and jobs. The major challenge is that few incubators receive financial support from Government despite their demonstrated impact on productivity and youth employment.

The third stage is commercial production to meet contractual obligations and market requirements in a sustainable, profitable and environment-friendly manner, as guided by the incubator. At this stage, start-ups are provided with appropriate incubation services following specialised arrangements on a case by case basis. The quality and quantity are highly monitored to ensure compliance with agreed standards. Other services provided include; business networking, mentoring, coaching, market linkages, access to financial linkages such as potential equity, credit, and guarantees. The aim is to enable the growth of high potential start-ups,

SMEs and farmer organisations to survive in a competitive world. The major challenge is that CURAD cannot provide all the working capital required by entrepreneurs given the high numbers supported. Government should make deliberate efforts to finance the incubators that handhold start-ups and SMEs. At this stage, the key players include the MTIC, Uganda Export Promotion Board (UEPB), social media platforms, financial institutions, regulatory bodies and other incubation centres.

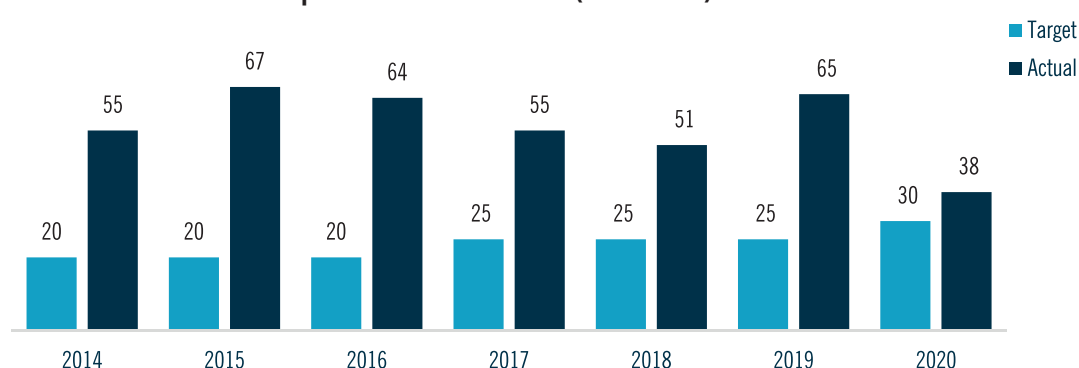
3.1.4 Performance of the CURAD incubator business model

This section assesses the performance of the CURAD incubator business model based on four parameters, namely; i) the level of financial support extended to business start-ups; ii) the number of businesses incubated; iii) income generated from start-up businesses; and iv) the number of jobs created by start-up businesses.

i) **Number of businesses supported**

For the period 2014 to 2020, CURAD has supported 395 start-up enterprises, of which 149 (38%) are female-headed while 246 (62%) are male-headed. Women participation in incubation is limited due to unique challenges faced by women namely; i) limited access to business opportunities and information; ii) many women spend more time on family care; iii) limited access to finance due to lack of collateral; and iv) multiple sources of distractions and diversion (pregnancies, care for the sick and elderly and social engagements, among others). Other challenges include; bottlenecks in career/business development, lack of psychological support, lack of safety nets against shocks, fear of failure, peer pressure and influence, religious barriers, and dependence on other members of society.

Figure 17: Number of new start-up businesses incubated (2014-2020)



Source: Author's construction based on CURAD annual reports.

Generally, more start-up enterprises were incubated compared to the set annual targets (Figure 17). The change in the number of enterprises that were incubated annually correlated with the financial resources available to support start-up enterprises. Also, in 2020, the low number of enterprises incubated was attributed to the COVID-19 pandemic and subsequent government measures to curb the pandemic's spread, which limited CURAD and potential incubatee activities.

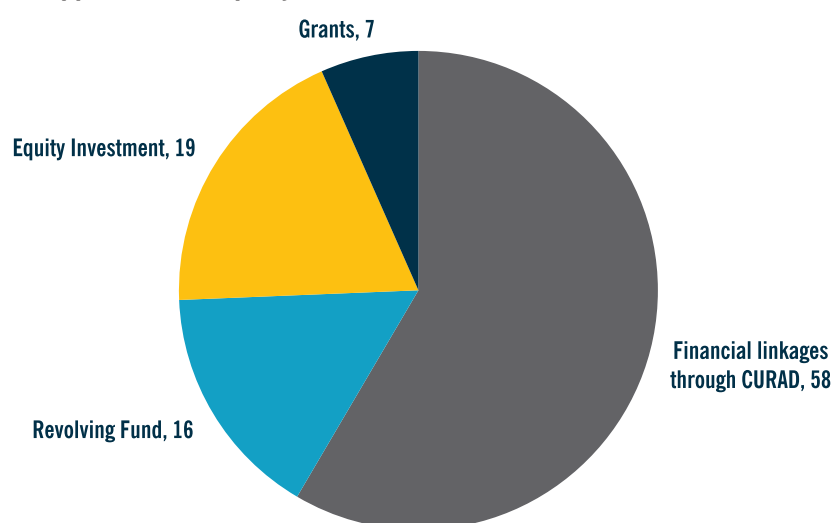
ii) Financial support to start-ups

The evidence presented in Figure 18 reveals that between 2014 and 2020, CURAD extended financial support worth UGX 4.8 Billion to start-ups, and of this amount, 58 percent was through financial linkages to development partners. This was followed by equity investment at 19 percent,

where CURAD acquired a stake in start-up enterprises. Other financing arrangements included the revolving fund model, where entrepreneurs pay back the financial support on an agreed arrangement as per the financial modelling of the enterprise. The rest (i.e. 7 percent) of the financial support in form of grants to agribusinesses, was provided through the CURAD agribusiness innovations challenge.

Whereas the need for financial support for 395 entrepreneurs recruited between 2014 and 2020 was estimated at UGX 7.9 Billion, only 61 percent of the required funding (UGX 4.8 Billion) was extended to entrepreneurs. This left a financial shortfall of 39 percent. This represents a substantial shortfall in the financial support required by entrepreneurs, and denotes a need for increased funding for incubating enterprises.

Figure 18: Financial support to start-ups by CURAD (2014 to 2020), (%)



Source: Author's construction based on CURAD annual reports

iii) **Income generated by start-ups**

From 2014 to 2020, start-up enterprises have generated a total of UGX 1.8 Billion, with an increasing annual trend (Figure 19). Important to note is that the start-ups usually perform exceptionally well – the actual income generated far exceeds the expected income. The exception is in 2020, where the income generated by start-ups was low due to the effects of the COVID-19 pandemic.

iv) **Number of jobs created by start-up business**

There was an increase in the number of jobs created by start-up enterprises save for 2020 that had limited start-up enterprise activities, which was attributed to the COVID-19 pandemic (Figure 20). Similarly, the number of jobs created by start-up enterprises annually, surpassed the set targets in all the years, including 2020.

i) **Multiple sources of incubation support is critical for financial sustainability**

Incubators have proved to be an effective and innovative economic development tool, and they should therefore, be supported by a broad-based partnership, including public and private players. This will enable leveraging resources for sustained impact and will minimise liquidity and operational risks, and enhance the success rate of incubated enterprises. The financial sustainability of start-up enterprises is highly correlated with the financial stability of the incubator. Experience shows that donor funding tends to decrease/fluctuate over time, which significantly and negatively affect the performance of start-ups. With multiple revenue streams, the incubator would be in a position to cushion itself and the enterprise it is incubating.

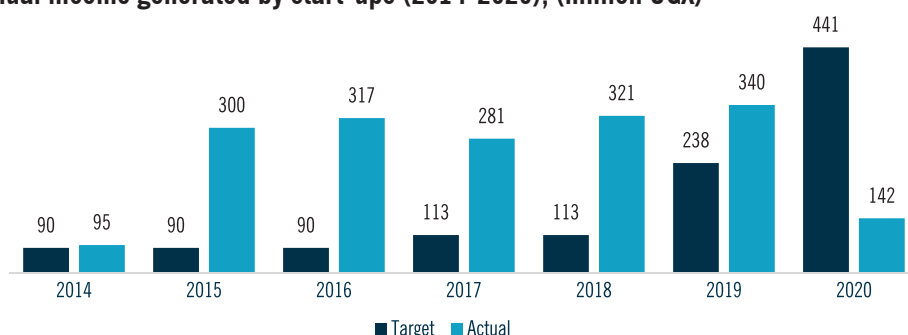
ii) **Shared facilities/ infrastructure is paramount for successful incubation**

Our experience shows that among the major challenges, youth starting enterprises encounter, is the lack of

3.1.5 Lessons learnt

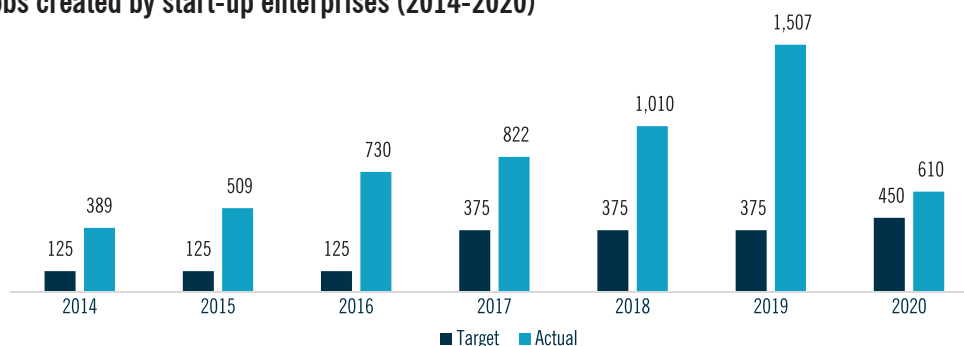
After eight years of supporting entrepreneurs through agribusiness incubation, the following are the lessons learnt;

Figure 19: Annual income generated by start-ups (2014-2020), (million UGX)



Source: Author's construction based on CURAD annual reports

Figure 20: Jobs created by start-up enterprises (2014-2020)



Source: Author's construction based on CURAD annual reports (various years).

infrastructure, including production space, office space and machinery. During CURAD's initial years of inception, start-ups were supported to run enterprises from their own rented facilities, which was not sustainable. Since start-ups were not progressing well in rented facilities, CURAD put up certified production infrastructure. Access to free infrastructure reduced start-up's cost of production by up to 80 percent.

iii) **Incubation increases resilience for start-ups compared to non-incubatees**

Acknowledging the increased cost of production for start-ups, mostly due to COVID-19 on start-ups, incubatees are likely to have higher chances of survival during and after the crisis, compared to their peers that are not under incubation. This is because the use of shared facilities (where the operating costs are shared and subsidised) reduces cost of production. Furthermore, through business to business (B2B) networking, mentoring and coaching, entrepreneurs are psychologically and morally supported to handle business shocks.

3.1.6 Challenges for business incubation in Uganda

There are several challenges in incubation. Notable among them are;

i) **Long break-even period for incubated start-ups**

Even though incubation attempts to address numerous risks faced by start-up entrepreneurs, other factors still hinder the success and survival of the enterprises, thus affecting the period under which an enterprise has to be incubated. For example, some entrepreneurs exhibit low levels of professionalism, such as failure to perform basic business practices like book keeping, tax compliance, banking, keeping standards and commitment to their enterprises. This, in the long-run, has resulted in many start-ups spending longer than 3.5 years, which is the average break-even period for incubated enterprises.

ii) **Limited financial support for incubation**

Incubation as a concept and practice, is relatively new in Uganda, and it therefore attracts little financial support from both public and private sector players. This has limited support to start-ups, especially those in agriculture.

iii) **Overwhelming demand for incubation**

The insufficient creation of quality and gainful jobs in the economy, has created an overwhelming demand for support to start businesses, mainly by the out-of-school, unemployed and even the employed youth. In response for its call for applications, CURAD received over 400 applications for incubation, of which only about 100 could, at the available resource level, be successfully incubated.

iv) **Lack of a legal and regulatory framework for incubation**

Though Government has tried to introduce the concept of incubation in the country and supported about three incubators, there is no legal frameworks to support incubation. Yet incubation can be a key driver for job creation in Uganda. Furthermore, only a few policy makers appreciate the role incubation can play.

v) **Lack of value addition and processing facilities**

Over the years, CURAD has received applications from several agricultural value chains but because it has not yet established the necessary value addition and processing facilities, CURAD is unable to offers incubation opportunities to the entrepreneurs in the dairy and meat value chains.

3.1.7 Conclusions and policy implications

CURAD has made impressive strides in providing a conducive environment for supporting innovation in agribusiness through incubation. CURAD incubation programmes have proved to be a cost-effective approach creating jobs and boosting incomes within the agricultural sector. CURAD's experience has shown that incubation has positive outcomes in terms of enterprise survival, job

creation potential and income generation, especially for the unemployed youth and women.

In light of the above, Government should;

- i) Create a policy, legal and regulatory framework to promote agro-SME and value chain development through incubation;
- ii) Explore, working jointly with private sector actors (in different value chain associations/agencies), to increase opportunities for incubation. Government could provide leased space or unutilised land at farms/research institutions to host such incubators, until the private sector is able to take on the lead role;
- iii) In-build incubation facilities into agricultural projects and programmes as well as within the PDM. The physical incubation facilities may be shared across parishes and established at district, zonal and regional agricultural facilities;
- iv) Allocate budget to public and private incubators that are promoting quick replication of good practices and cross-learning amongst incubators, communities, parishes and agricultural zones; and
- v) Promote re-alignment of curricula of institutions of higher learning to allow for incubation facilities at these institutions and to improve their training content towards meeting the demands for modernising and commercialising Uganda's agricultural sector.

Endnotes

- 2 Ogutu, V. O and Kihonge E. (2016) define a business incubator as a conducive environment where start-ups, new ventures are nurtured, ideas are developed to commercialisation thereby building profitable, sustainable and scalable enterprises without exposing them to the harsh realities of business environment and high start-up costs.
- 3 MTIC, Ministry of Science, Technology and Innovations (MSTI), MAAIF, NARO, Uganda Investment Authority (UIA), NAADS/OWC, Uganda Registration Services Bureau (URSB), UNBS, Uganda Coffee Development Authority (UCDA), and Makerere University

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3.2 DIGITALISING THE COFFEE VALUE CHAIN IN UGANDA: A CASE STUDY OF KYAGALANYI COFFEE LIMITED

Medard Kakuru¹



3.2.1 Background

The agriculture sector employs about 72 percent of Ugandans, of which 68 percent are smallholder farmers (Mirembe and Lubega, 2019; UBoS, 2021). Coffee production and marketing as a primary source of cash income, supports over one million farming households (GIZ, 2014). Coffee is Uganda's most valuable agricultural export commodity, contributing 20 to 30 percent of the country's foreign exchange earnings (Mwesigye and Nguyen, 2020). In the financial year 2020/21, the value of coffee exports reached USD 559 million (UCDA, 2021).

Despite its economic importance, smallholder coffee farmers in Uganda remain constrained by inadequate agricultural practices, limited information and market access, as well as limited access to financial services (GIZ, 2014). Lack of access to agricultural finance is one of the reasons why use of quality inputs remain low among smallholder farmers. Consequently, agricultural productivity has remained low, which in turn, has curtailed

the transformation of subsistence households, leading to a slow pace in rural development. Evidence shows that the average productivity for coffee in Uganda is less than one-third of fair yields for smallholders and less than 20 percent of maximum yields as achieved, for example, in Vietnam (Bakema and Schluter, 2019).

Smallholder farmers' lack of adequate financial services stems from either being financially excluded or being only included informally² (Miller, 2019). Value chain financing remains either inadequate or entirely out of reach (Mattern and Ramirez, 2017). Coffee value chain players still have limited access to credit from formal lending institutions or by different coffee value chain players (Mwesigye and Nguyen, 2020). Most core value chain players use personal savings to fund coffee production, aggregation and primary processing. Those who borrow obtain money from informal saving schemes such as VSLAs, and very few are financed by commercial banks (*ibid*).

Besides financial exclusion, farmers are detached from other value chain actors, which deprives them of over 95 percent of the retail value of their produce (NUCAFE,

¹ Research Analyst, Economic Policy Research Centre, Kampala, Uganda (mkakuru@eprcug.org)

2019). Separating agricultural production from value addition processes (e.g. hulling, grading, sorting, roasting, grinding, packaging and branding) cuts farmers off from the potentially significant profits achieved in the later stages of the value chain (*ibid*). Most farmers therefore, have not been taking adequate care of the quality of their coffee.

Several attempts have been made to address some of the challenges mentioned above, including organising smallholder coffee farmers in producer groups to channel their produce through commercially managed bulking stations with direct market access, releasing farmers from dependency on informal intermediaries. However, there are challenges that have remained at many bulking stations, mainly due to the use of manual and paper-based systems that are error-prone (GIZ, 2014). The resulting lack of transparency and accountability, has led to a lack of trust and cooperation within the producer groups.

Given this background, this article presents a case study of the digitalisation of bulk payments for coffee farmers associated with Kyagalanyi Coffee Limited (KCL). The article highlights the rationale for Kyagalanyi digitalising its marketing chain, the structure, conduct and operation of actors in the digitalisation process and the challenges to digitalising agricultural value chains in Uganda.

3.2.2 Kyagalanyi Coffee Limited: Rationale for digitalisation of market operations

KCL was founded in 1992 after the liberalisation of the coffee sector. The company has a dry mill plant in Mbale district. In addition to the mill, KCL has 6 washing stations³ that do wet-processing; each washing station serves an average of 1,000 farmers. KCL is the second largest exporter of coffee after UGACOF (UCDA, 2021). KCL exported approximately 62,352, 60-kg bags of coffee in February 2021, accounting for about 11.1 percent of Uganda's coffee exports in that month (*ibid*). KCL purchases coffee from approximately 6,000 individually

certified coffee farmers in the Mount Elgon region in eastern Uganda and 800-900 coffee traders linked with an estimated 45,000-50,000 uncertified coffee farmers. The Mount Elgon region covers five districts, including Mbale, Manafwa, Kapchorwa, Bududa and Sironko. KCL became the first sizeable agricultural exporter to introduce a digital payment system in 2015.

Before the digitalisation innovation, all payments to farmers, traders and staff were done by cash. Upon delivering coffee by farmers/traders to either washing stations or the dry mill, KCL staff would weigh the coffee brought in and make cash payments based on the weight and the day's price. During the peak season, the washing stations would be busy, and farmers would have to wait for hours to sell their coffee and get cash payment. Cash receipts posed challenges to farmers, including the risk of theft as cash was being transported home, the lack of confidentiality and a safe place to save. The washing station staff had to travel to Mbale regularly to transfer large sums of money to pay farmers, putting them at risk of both theft and assault.

Depending on their scale, traders needed as much as UGX 50 million cash at hand to pay farmers for the coffee cherries purchased, which also posed a significant risk. Once the traders delivered coffee to the factory in Mbale, they would be paid by cheque, which took at least a full day to be cleared. During this waiting time, traders had to stay in Mbale (since there are no banks in villages where coffee was produced), consequently increasing the cost of business. All KCL payments to pay staff at washing stations, drivers and guards were in cash form. The staff (guards) who travelled to Nairobi with the exported coffee would have to carry wads of cash, which they would exchange for Kenyan shillings at the border, another practice which posed significant risks.

Due to this state of affairs, KCL was driven to seek a solution. First and foremost, KCL wanted to digitalise their procurement operations which were costly.⁴ Digitalisation of payments drives transparency, increases accountability

and efficiency. Second, KCL wished to ensure the safety of farmers, traders, transporters, and staff who always carried considerable cash amounts. Third, since farmers and traders were not obligated to sell to KCL, KCL wanted to build loyalty by making their payments immediate, through the use of the mobile money systems.

KCL itself does not provide inputs or credit for inputs but the company realised that there was need for inputs yet the farmers were financially excluded. Furthermore, KCL wanted to create an environment that empowers and links its farmers to formal financial service providers. Digitalisation would generate data trails of farmers' financial inflows and outflows, which would offer farmers an opportunity to access savings, credit and insurance products.

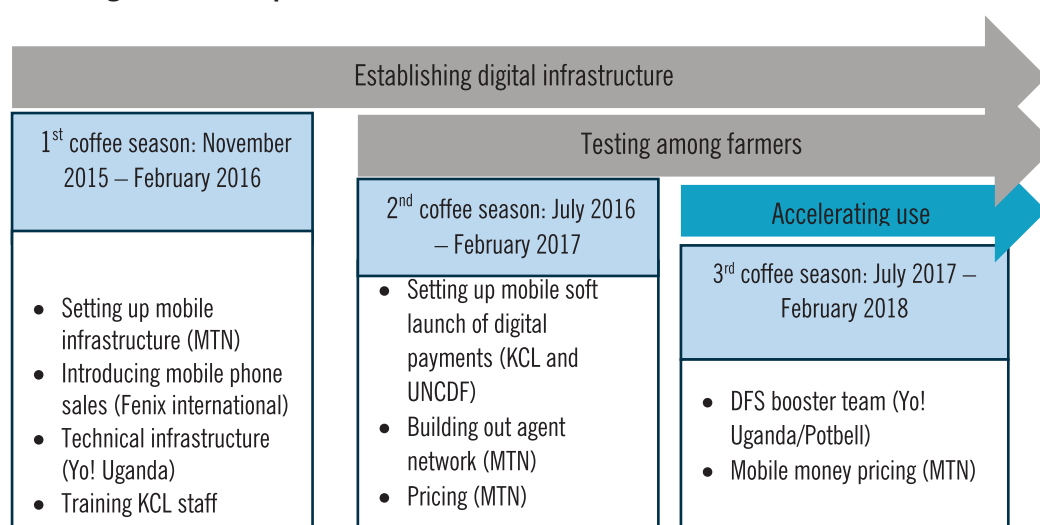
3.2.3 KCL digital ecosystem - Structure, conduct and operations

In 2015, KCL partnered with mobile technology provider Yo! Uganda (Yo), MTN Uganda and United Nations Capital Development Fund (UNCDF) to pilot digital Business-to-people (B2P) payments to coffee farmers, traders and staff of KCL in the Mt. Elgon region (Figure 21). The region covered five districts then, including Mbale, Manafwa,

Kapchorwa, Bududa and Sironko. Yo is the leading payment aggregator⁵ in the mobile money and payments sector in Uganda. It allows the bulk payer (in this case, KCL) to interact with all major mobile network operators (MNOs) mobile money systems through a single platform, rather than opening an account and transacting on multiple networks. Much as the project's initial objective was to digitalise payments, Yo's platform allows for real-time visibility and analytics, thus supporting traceability of payments and streamlining the coffee certification process.

The coffee certification process is critical for Uganda. The quality of Uganda's coffee on the world market has sometimes been questioned, a factor that largely drove the repealing of the UCDA Act, 1991 and its replacement with the National Coffee Act, 2021. MTN Uganda was the mobile network and wallet provider for this project. Initially, there was no mobile telephone network in some districts in the Elgon region. MTN had to install a cellphone tower in Kapchorwa to provide telephony connectivity. UNCDF offered technical and financial support during project implementation. Its motivation to invest in rural agricultural value chain digitalisation was financial inclusion. UNCDF decided that the most feasible way of reaching and involving the long-forgotten subsistence farmers into the

Figure 21: The digitalisation sequence



Source: M'Bale, A., Pillai, R. and Were, N. (2018)

financial sector was through major agricultural commodity value chains in which a vast majority of subsistence farmers operate. By opening mobile money accounts and receiving payments via the accounts, farmers would be included in the financial system. By the end of 2017, UNCDF had invested up to USD 400,000 into the project. During project implementation, other partners, including Potbel Limited and Fenix International, were brought on board. The role of Potbel was to; recruit mobile money agents (MMAs); and manage liquidity in the project area to strengthen the MMA network for KCL farmers. Before Potbel's intervention, MMA penetration was very low. Some of the areas had very few MTN MMA and completely no agents for Airtel. The role of Fenix international was to increase mobile phone penetration in the area. The organisation provided phones and charging solutions on a lease-to-own basis.

Having established the digitalisation infrastructure, KCL introduced digital payments during the July 2016 – February 2017 coffee season, starting with their staff and a few farmers and traders. In the first season, uptake by farmers was low – 6.6 percent on average. In the subsequent season (starting July 2017), the project focused on increasing farmer uptake of digital payment innovation through intensifying phone sales, mobile money financial literacy training, enterprise budgeting and liquidity management of MMAs. To achieve this, Yo deployed a booster team⁶ to distribute SIM cards and affordable phones, recruit MMAs and educate farmers. As the MMA network expanded closer to the farmer residences, they increasingly used mobile money more and accepted KCL payments. Farmers living closer to trading centres where it was easier to pay for other goods and services also accepted mobile money payments readily.

By 2018, all the KCL staff at washing stations and about 5,000 farmers received the payment through their MMAs. A significant number of farmers started storing payments on mobile money instead of cashing out entire sums on the day of payment. There was also a higher adoption rate of the MTN micro-credit product (MoKash) among those

trained in the region compared to the rest of the country when the product was first launched.

KCL and its partners anticipated that multiple mobile payments cycles over three years would develop farmers' confidence and increase acceptance of mobile payments. Initially, KCL was paying the mobile money charges related to funds withdraw by farmers; thus, farmers were receiving and withdrawing full amounts from their mobile money accounts. Yo and MTN had set up the system to charge only for withdrawals, with the withdrawal cost borne by KCL. However, with the introduction of a tax on the withdrawal charges, KCL found it too costly to meet the withdrawal charges plus the tax levied on the charges. In the financial year 2018/2019, Government introduced an additional tax - a one percent excise duty on the value of mobile money transactions. This meant that farmers had to pay all the tax charges, which considerably reduced the amount withdrawable. This discouraged more farmers from enrolling, and those who had enrolled, exited. The tax charges affected the farmer-KCL relationship as the farmers thought that they were being cheated by KCL.

To overcome this bottleneck, KCL and MTN sensitised and encouraged farmers to use *MoKash* to by-pass the tax charges. *MoKash* enables one to pay for other services without having to withdraw the money first. Farmers were encouraged to pay school fees using mobile money, but it was never adopted because it was a new concept, and most schools in the area had not adopted mobile receipt systems. In addition, officials from Yo Uganda and UNCDF reported that *MoKash*, being an innovation in Uganda then, had limited usage⁷. This meant that there were limited options for using the money on the MMA. Inevitably the money had to be withdrawn. Farmers could not shoulder the withdrawal costs and started rejecting mobile payments and all of them eventually exited the mobile money payment arrangement.

For coffee traders, they first rejected the payment system because MTN wallets could only hold UGX 5 million and could transact only UGX 4 million daily, yet, traders transact much higher financial volumes. A solution was reached by increasing the amount that a mobile money wallet could hold and transact to UGX 10-50 Million. The current MTN wallet-size offering is therefore, an outcome of this coffee project.

3.2.4 Implementation challenges and lessons learnt

Much as digitalisation is a good endeavour, the cost of establishing the system is prohibitive. For KCL, the digitalisation process was costly because the targeted area lacked the requisite infrastructural facilities and services. Indeed a key informant reported that *“the enabling factors of a Digital Financial System ecosystem (policy and regulation, infrastructure, mobile money service providers, customers (literate farmers) and high volume payments) were underdeveloped in Uganda”*. As a result, the digitalisation process was costly. It took longer than anticipated because infrastructure had to be put in place first, and innovation adoption was slow due to high levels of illiteracy.

The key lessons from Kyagalanyi's undertaking are:

- i) Financial and digital literacy is necessary but expensive, and current investment in it is meagre in Uganda.
- ii) Growing an MMA network is time-consuming and costly and telecommunication companies (like banks) do not always invest in agent network expansion to areas that are not commercially viable.
- iii) Beyond payments, end users must have additional incentives to enable them to switch from cash to digital. Stakeholders must be intentional in developing/leveraging additional uses for mobile financial services.

3.2.5 Conclusion and policy options

By and large, agricultural value chain digitalisation benefits farmers and other actors in the value chains and has positive spillover effects on the entire communities. The main benefit to farmers is formal financial inclusion, which subsequently allows them access to formal financial services, including credit, insurance and saving. The communities can access cellular networks, which improves the communication system, enabling them to get information that can help them improve their businesses. Therefore, Government should, in support of quicker adoption of digital technology in agricultural value chains; i) adequately invest in cost-efficient, reliable and stable electricity transmission, especially in rural areas where electricity coverage is still deficient, transmission is extremely unreliable and the cost high; and ii) establish a cost-sharing, fund or facility to support private sector to expand cellular and agent networks; iii) subsidise taxes (for a set period of time) related to mobile money transaction for strategic agricultural enterprises like coffee.

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Endnotes

- 2 Informal inclusion refers to use of financial services provided by an individual or institution that is not supervised or regulated.
- 3 A washing station is a coffee buyer location where coffee cherries are delivered by farmers for inspection and wet-processed to remove the pulp.
- 4 Agribusinesses in Uganda spend about 10 percent of their annual operating budget on covering losses from theft and fraud and expenses related to insuring, securing and transporting cash (Mckay and Buruku, 2016).
- 5 Aggregators are software firms that design payment solutions that facilitate the flow of funds between payers and payees irrespective of the payment instrument or channel used.
- 6 A booster team is a group of people who enter a rural community to improve service delivery through increasing device penetration and providing customer education and support
- 7 Usage cases are transaction options that the money on mobile money can be used for. Examples of usage cases include payment for utilities, pay TV, school fees.

3.3 MINIMISING THE RISKS ASSOCIATED WITH DIGITISING AGRICULTURE FINANCE IN UGANDA

Regean Mugume¹



3.3.1 Introduction

The COVID-19 outbreak has had a devastating effect on Uganda's agricultural sector. Evidence shows that during the lockdown, the pandemic triggered a 76 percent decline in Agri-SMEs' demand for agricultural products (EPRC, 2020). To access markets while reducing the risk of COVID-19 infections, many Agri-SMEs have adopted digital financial solutions in their business operations. The pandemic has been characterised by increased uptake of digital financial platforms as virtual marketplaces to match buyers' needs and B2B trading. In addition, financial service providers (FSPs) have also leveraged these platforms to provide credit and payment services to farmers and Agri-SMEs during the pandemic period. Moreover, the quest for digitalisation is augmented by growth in internet and mobile money subscriptions. Evidence shows that in 2020, the value of mobile money transactions grew rapidly (by 28.2 percent or USD 25 billion) compared to the 2.9 percent growth in 2019 (BoU, 2021).

Notwithstanding the benefits of digitalisation in the sector, growth in the use of the internet and digital platforms in the financial sector has created new avenues for perpetrating cybercrime, which has led to enormous financial losses. Available data shows that cybercrime costs Uganda's economy an estimated USD 42 million (UGX 155 billion) per year, with the financial sector being the most vulnerable (Serianu, 2018). Worse still, less than 5 percent of the perpetuated crime is reported and investigated by police (UPF, 2020). The increased prevalence of cybercrime not only weakens consumer trust and confidence in digital financial services but it could roll back some of the gains made in digitising agricultural finance.

Evidence shows that whereas cybercrime is rampant in developed countries, these have since built cyber resilience, causing cybercriminals to target countries with emerging digital financial services (like Uganda), by exploiting their cyber vulnerabilities (Yazbeck *et al.*, 2019). The financial sector in the developing world suffers the consequences of a weak legal and regulatory environment that fails to mitigate cybercrime acts (Adomako *et al.*, 2018).

¹ Research Analyst, Microeconomics department, Economic Policy Research Centre, Kampala, Uganda (rmugume@eprcug.org)

In light of these gaps, this article seeks; to examine the extent of cybercrime in Uganda in the context of agricultural sector; assesses the current enabling environment-in terms of the legal, policy, institutional framework put in place to mitigate cyber security; to draw on success stories in other African countries; and to recommend strategies that can minimise cybercrime in Uganda's quest for digital financing in the agricultural sector.

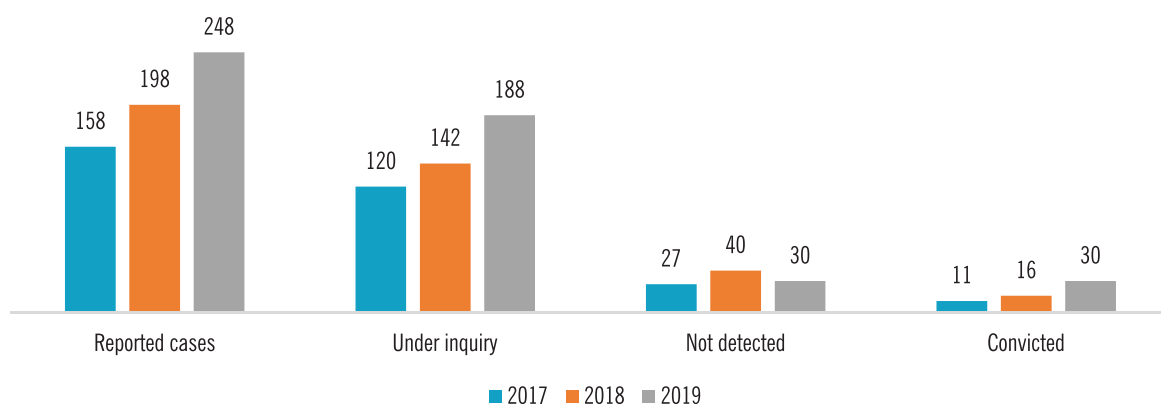
3.3.2 The state of cybercrime in Uganda's financial sector

The landscape for cybercrime shows a general increase in cases reported to the UPF. For instance, between 2017 and 2019, the cyber cases reported to police, steadily grew by 25.2 percent (from 158 to 248 – Figure 22). The growth in cybercrime was driven by electronic fraud (internet banking, mobile money payments) due to weak internal controls, limited training on cyber security in banks and telecom companies (UPF, 2020). For instance, in 2019, MTN Uganda, DFCU and Centenary banks lost a total of UGX 1.7 billion through internal collusion fraud. Worse still, data shows that most of the reported cases remain under inquiry or went undetected due to limited evidence to support prosecution of the cases. Relatedly, the Uganda Police Annual crime report (2020) confirms that the police force has limited capacity to conduct forensic investigations needed to address cybercrime.

Furthermore, Uganda, compared to her African counterparts, lacks enough Certified Emergency Response Teams Staff (CERTs) to respond to cyber-attacks. For instance, the country has only 300 CERTs compared to Kenya (1,500) and Rwanda (400), yet cybercrime is on the rise in Uganda (Adomako *et al.*, 2018).

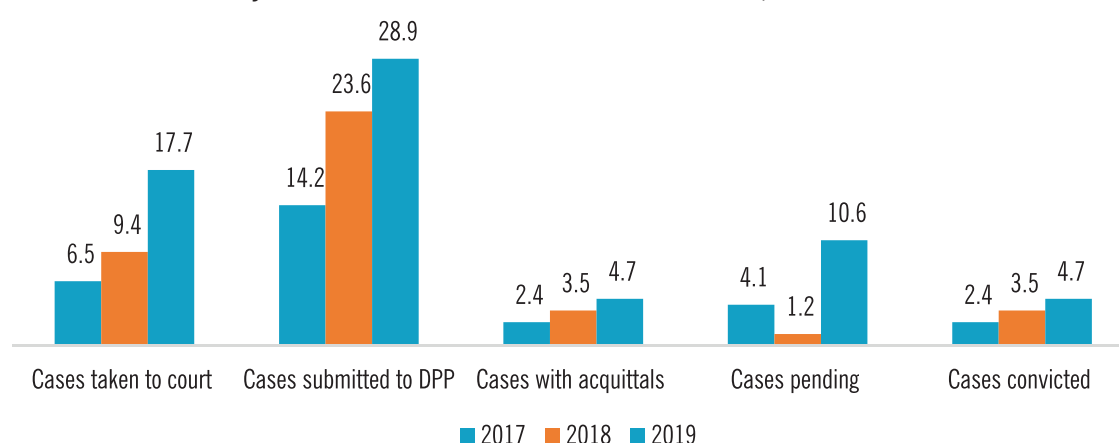
Although the share of cybercrime cases is rising, the share of these cases forwarded to court is substantially low. Figure 23 shows the performance of the forwarded cases to the courts of law. The share of cases prosecuted increased from 6.5 percent in 2017 to 17.7 percent in 2019, and the convicted cases increased from 2.4 to 4.7 percent (Figure 23). This conviction rate is still short of the 10 percent international requirement for effective cyber law enforcement (*ibid*). Furthermore, a substantial share of cybercrime cases is not submitted to the Office of Director Public Prosecutions (ODPP). Notably, only three in every ten cases (28.9 percent) reported to police are submitted to the ODPP. This could be attributed to inadequate specialised judicial staff trained in handling cybercrimes, particularly in investigating cybercrime cases to closure. Unfortunately, Uganda's judiciary does not have a witness system that is strong enough to facilitate the prosecution of sophisticated crimes like cybercrime.

Figure 22: Annual cybercrime cases reported to police (2017-2019)



Source: Author's construction based on UPF reports (various years)

Figure 23: Prosecution of cybercrime in the courts of law (2017 to 2019), (%)



Source: Author's construction based on UPF reports (various years)

The Ugandan economy incurs enormous losses on account of cybercrime. Data from the annual crime reports show that money lost through cybercrime substantially grew from UGX 0.16 billion in 2017 to UGX 11.1 billion in 2019 (Table 3). The increasing trend of economic loss, points to the improved adoption of electronic payments (as a medium for transactions), which has heightened the risk of cybercrime in Uganda. However, only a small share of the money lost through cybercrime is recovered. For instance, between 2017 and 2019, out of the total money lost to cybercrime, only 0.2 percent, 3.8 percent and 0.5 percent was recovered in 2017, 2018 and 2019, respectively. This is attributed to the limited capacity of police personnel and the affected banks and organisations in dealing with cyber security issues. For instance, it is reported that banks are not punitive enough in applying the existing laws to prosecute their staff involved in cybercrime. Consequently, the liability of perpetrating cybercrime is not deterrent enough as cyber criminals largely go unpunished.

Table 3: Money lost and recovered in cybercrimes (2017-2019), (UGX millions)

Year	Money lost (UGX)	Money recovered (UGX)	% money recovered
2017	169.5	0.4	0.2
2018	610.5	23.3	3.8
2019	11,145.6	51.9	0.5

Source: Author's construction based on UPF reports (various years)

3.3.2.1 Cybercrime incidence in Uganda's agricultural finance landscape

While agricultural finance has registered few cases of cybercrime targeting digital platforms, the sector is susceptible. Indeed, farmers, agribusinesses and financial providers in the agricultural sector are at a high risk of cybercrime due to the increased adoption of mobile money transactions as a means of payments, savings and access to credit. For instance, the 2018 FinScope survey revealed that 51 percent of the adult population in rural areas (primarily farmers) own mobile phone that are susceptible to cybercrime (UPF, 2020). Indeed there have been reports of cybercrime targeting some of the digital platforms servicing the agricultural sector. For instance, the E-voucher system under the Agriculture Cluster Development Project (ACDP) has been a key potential target. In this case, cybercriminals enrolled potential

farmers into the programme but the farmers never received any inputs after paying. To quote the farmers;

“We were asked to register through an electronic voucher management system to create accounts where we could access farm inputs, and each one of us deposited UGX 148,500 for starters. However, to our disappointment, the money was withdrawn, but we didn’t receive any inputs”.
(Ssekweyama, 2020)

The internal electronic fraud cases during the ACDP project implementation were perpetuated by input suppliers. Key informant interviews indicated that in some districts, some input suppliers under the E-Voucher system deducted more money than was agreed with the farmers. This discouraged farmers from using the platform. In addition, the system could also not carry forward balances deposited by farmers to the next season.

3.3.3 Appropriateness of the cyber security policy, legal and regulatory framework

Creating an enabling environment to promote access to digital financial services requires a clear understanding of the legal, regulatory and institutional framework that guarantees cyber security to all stakeholders in the financial sector. Accordingly, Government of Uganda has designed policies and bills, enacted various Acts and established institutions to fight cybercrime in the financial sector.

i) Legal framework

Government enacted the Computer Misuse Act (2011) to prevent the unlawful access, abuse and misuse of computers. The Act spells out the definitions of cybercrime and penalties liable to the perpetrators of the offence. The Act further spells out the procedural measures law enforcement authorities can use to fight cybercrimes. Relatedly, Government enacted the Electronic Signatures Act (2013), which provides the use of electronic

signatures to ensure that transactions are carried out in a secure environment. The Act emphasises the use of digital signatures in commercial transactions instead of electronic signatures that are weak in maintaining the integrity and security of the holder. Government has also enacted other cybercrime laws such as; The Electronic Transactions Act of 2011; the Access to Information Act (2005); and the Regulation of Interception of Communications Act (2010).

Additionally, the Data Protection and Privacy Bill (2015) was enacted to protect electronic data on computers and mobile phones. Owing to the rise in digital and electronic financial transfers in the private sector, Government has also enacted the National Payment Systems Act, 2020. The Act provides BoU with the mandate to regulate and supervise payment service providers posing safety risks to customers’ funds. The law will promote cyber security, especially in the mobile digital platforms widely used in the agricultural sector. Notwithstanding the aforementioned regulations, their enforcement is weak, characterised by ineffective implementation due to limited budget, inadequately trained staff and limited coherence among the enforcing agencies (Mugisha, 2015). Moreover, there is limited awareness of the existing laws among financial sector, the stakeholders, and the public in general (*ibid*).

ii) Policy framework

Uganda has not yet developed a national cyber security policy or strategy to guide cybercrime fighting interventions. Instead, the country has developed a National Information Security Policy (NISP) and a National Information Security Strategy, both spearheaded by National Information Technology Authority, Uganda (NITA-U). This approach does not directly address cyber security issues. The lack of a cyber-security policy and strategy has resulted in the *ad-hoc* implementation of cyber security interventions, leading to limited progress in the fight against cybercrime. For instance, there is no centralised budget for promoting cyber security. On the contrary, every ministry allocates resources depending on the extent of exposure to cybercrime (Global Cyber Security Capacity Centre, 2016).

iii) *Institutional framework*

Regarding the institutional framework, Uganda established the Uganda Communications Commission (UCC) and NITA-U responsible for regulating the cyber-security environment in the country. However, these institutions have limited technical and financial capacity to fight the rising levels of cybercrime. These institutions face the challenge of limited budgets to conduct country-wide cybercrime awareness programmes. Additionally, the country has few Central Emergency Response Team (CERTs) professionals who can offer real-time response to cyber-attacks in organisations and banks across the country. Concerning enforcement, the Uganda Police has a Cybercrime Unit and Electronic and Computer Misuse Department. However, the department faces staffing and resource gaps to investigate cyber cases, given the evolving digital technology trends that drive cybercrime (UPF, 2020).

In conclusion, whereas the Government has made some progress in providing a conducive environment for digital financial services, more effort is imperative through; i) increasing public awareness on cybercrime ii) developing

a National Cyber Security Strategy to guide budgets and structured interventions to mitigate cyber-attacks; iii) increasing training of more certified Emergency Response Team staff, Police personnel and judicial officers in handling cybercrime cases (CERTs); iv) improving response to cyber-attacks by developing communication guidelines between CERT-Uganda and stakeholders in the financial sector.

3.3.4 Country cases studies and models for fighting cybercrime in developing countries and lessons for Uganda

To mitigate cyber fraud in the financial sector and mobile platforms in the agricultural sector in Uganda, it is imperative to draw on successful strategies adopted by other developing countries in the fight against cybercrime. These include; the Nigeria Electronic Fraud Forum (NEFF) and the Regional Cyber Security Resource Centre model implemented by the Suricate Solutions in Senegal and Ivory Coast. Both case studies are based on strong Public-Private Partnerships in the financial sector. Box 1 elucidates the detailed operations of NEFF in Nigeria.

Box 1: A case story of the NEFF

Background

The NEFF is a public-private partnership body formed in 2011 to combat the high rates electronic fraud in Nigeria's financial services industry. This platform comprises of a pool of members from the financial sector that include; commercial banks, mobile payment operators, payment system operators, national security and intelligence authorities and the Central Bank of Nigeria. Before the inception of NEFF, commercial banks, MFIs and Mobile Network operators were prone to the same types of fraud. Fraudsters were using principle of divide and rule to perpetuate cybercrime since there was limited or no follow-up of fraud. Additionally, interventions to fight cybercrime were ineffective since they were one-off operations by the enforcement authorities.

Objectives and operations

In light of the increasing level of cybercrime in the country's financial sector, the NEFF was established to; (i) promote the exchange of information and sharing knowledge on fraud among key stakeholders; (ii) proactively share fraud data/information amongst banks and service providers to enable prompt responses to prevent and limit fraud losses; (iii) on behalf of the financial sector, formulate cohesive and effective fraud and risk management strategies, and define key requirements as relates to e-payment security. To achieve these objectives the forum

established a secretariat that runs its operations and is housed at the Central Bank of Nigeria. The forum also created a Financial Sector Fraud Desk and also entered into a strategic partnerships with the key stakeholders such as National Communications Commission of Nigeria, law enforcement agencies and MNOs. The forum has also developed a Payment System Security and Risk Management Centre to allow members to share cyber threat information and use it to improve the cyber defenses of the Nigerian Payment System. NEFF also established the Centralised Fraud Reporting Portal that facilitates real time response and redress of cybercrime.

Achievements

On account of the interventions implemented by NEFF, incidence of cybercrime in Nigeria's financial sector has significantly declined. For instance, between 2011-2019, the amount of financial losses in the financial sector drastically declined by 73 percent from USD 15.1 million to USD 3.95 million. Due to the collaborative effort of the Forum, cyber readiness of the financial sector players has been enhanced. Furthermore, information sharing among the members has provided quick and real time responses in the fight against cyber-crime.

Source: Central Bank of Nigeria (2020)

The regional cyber security resource centre model:

The model is based on the fact that developing countries, especially Africa, have large human, technological, and resource gaps in fighting cybercrime. As such, stakeholders must pool resources to create shared resources to establish national and regional cyber security resources centres. These centres allow the public and private sector players to exchange cyber threats and share the lessons to foster innovation and research in cyber security. Resource centres can be specialised for financial sector stakeholders such as central banks, commercial banks, insurance companies, telecom companies, and pension bodies. Given their multi-country context, regional resource centres provide early warning systems and promote cross-border sharing of information, particularly regional trends related to cybercrime.

A case in point of a regional cyber security resource centre is the Suricate Solutions Company Limited in Senegal. Established in 2015 to support financial inclusion in the West African region, the company provides basic cyber security to micro-finance institutions in Senegal, Ivory Coast, Benin, and Guinea and also partners with universities to offer training to information technology (IT) students. The company's special focus is on operational

security, which can help companies to detect, remediate and recover from cyber security incidents. Its services are tailored for financial inclusion, e.g. security supervision, vulnerability scanning, penetration testing, awareness campaigns, audits, advisory and a 'cyber security flash diagnosis' that assesses the organisation's maturity and identifies priority actions. The company was established in Senegal, commenced operations in 2015 and set up a regional centre for West Africa to help financial stakeholders in the West African Economic and Monetary Union build capacity to fight cybercrime. Currently, the company has on-boarded several financial service providers in West Africa. These include; 38 microfinance institutions, two commercial banks and one utility company in Senegal; two utility companies, two banks and one SME in Ivory Coast; one commercial bank in Niger; and one MNO and one MFI in Guinea.

3.3.5 Conclusion and recommendations

Uganda's digital finance services landscape depicts a positive outlook due to increased internet and mobile telephone usage coupled with growing digitalisation in the wake of the COVID-19 pandemic. However, this growth presents the financial sector with a heightened risk of

cybercrime which costs Uganda's economy an estimated USD 42 million annually. The high incidence of cybercrime have weakened consumer trust and confidence in digital financial platforms and could roll back a decade of financial inclusion gains in agricultural sector financing. Although laws have been enacted to counter cybercrime, these enforcement measures have been hampered due to limited awareness among the stakeholders to hold the offenders to account. Additionally, there is no clear strategy and budget allocation to implement cyber security interventions in the sector.

Moreover regulatory bodies UCC and NITA-U lack specialised technical and budget capacity to quickly detect and mitigate cybercrime given that digital technology is evolving rapidly. Even for the reported cyber cases, less than 4.7 percent of the total cases are prosecuted in the courts of law due to limited capacity by Police and the Judiciary to investigate sophisticated cybercrime. To mitigate cybercrime for increased usage of digital financial services, there is a need to;

Develop a cyber-security strategy: To address the technical and resource gaps in fighting cybercrime, there is a need to develop a cyber security strategy to streamline interventions and budgets for fighting cybercrime in Uganda. Relatedly, the strategy should provide for a specialised department in Government responsible for spearheading the fight against cybercrime. This department would have a budget for fighting cybercrime across different sectors.

Invest in specialised training of personnel and forensic investigation in cyber security: Given the rising levels of digital technology, there is a need to train specialised staff with contemporary skills in cybercrimes, for instance, increasing CERT certification and IT professionals in the financial sectors while providing basic skills to all employees in commercial banks. More importantly, the staff in the justice, law and order sectors such as police, Office of the Director of Public Prosecution and judicial officers should be trained in handling cybercrime cases.

Conduct customer awareness and education on cyber security: There is a need for Government and digital financial service providers to sensitise customers on the cyber and legal framework as well as the tricks used by cyber fraudsters. Customers (individuals and SMEs) are the most targeted victims of cyber-attacks due to their limited knowledge in fighting cybercrime. These campaigns are also critical for customers to acquire knowledge on data protection and privacy as well as the use of defence software to protect them from cyber attacks.

Establish public private partnership initiatives to fight cybercrime: Fighting cybercrime is a multi-sectoral responsibility that requires joint investment by public and private players. Whereas the private sector is highly endowed with the latest digital technology, it is more vulnerable to cyber attacks. On the contrary, the government regulators and enforcement bodies in most cases lack the latest technology to fight cybercrime but have leverage over the law to fight cyber attacks, implying that public and private partnerships could harness each other's strengths in fighting cybercrime. Private public partnerships can be in form of joint ventures such as the cyber security resource centres and regular dialogues aimed at fighting cybercrime.

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CHAPTER FINANCING OF AGRICULTURAL VALUE CHAINS

4.1 FINANCING AGRO-PROCESSING IN NORTHERN UGANDA: LESSONS FROM UNCDF'S SUPPORT TO AGRICULTURAL REVITALISATION AND TRANSFORMATION FACILITY

Deus Tirwakunda¹ and Joan Alupo²



4.1.1 Introduction

In the last ten years, Uganda has shifted its focus to commercial agriculture. The transition to commercial agriculture is one of the top priorities of the recently adopted NDP III. However, this transition has been slow in Northern Uganda, given the region's extended political instability. The sluggish performance of the agricultural sector in the North can be partly attributed to; the lack of value addition activities; low capacity of local businesses, and limited access to affordable finance for agro-processing for small and medium agribusiness (Ocaya and Kiwuwa, 2015). Like other regions in Uganda, many small and medium enterprises (SMEs) cannot afford the high loan interest rates averaging over 21 percent between 2015 and 2020 according to BoU; meet the high collateral requirement; and afford to repay within the short term repayment periods offered. This has resulted

in particularly low uptake of agricultural financing (*ibid*).

In response to some of the above constraints, in 2018, under the EU-funded Development Initiative for Northern Uganda (DINU) programme, the UNCDF launched the Support to Agricultural Revitalisation and Transformation (START) facility to provide affordable medium-term concessional financing to agricultural value-adding projects in Northern Uganda. The START facility was designed to support implementation of DINU's food security, nutrition, and livelihoods component which aims at improving access to locally diversified foods by providing affordable financing to agro-processing businesses.

The START facility provides a unique proposition to agribusiness SMEs, including a lower interest rate at 10 percent per annum, a reduced collateral requirement at 50 percent of Forced Sale Value (FSV)³, more extended and flexible repayment terms (5 years), including grace periods. The facility also accepts a certificate of customary ownership and '*bibanja*' for collateral, allows SMEs to pay

¹ START facility Manager at United Nations Capital Development Fund (UNCDF) (deus.tirwakunda@uncdf.org)

² Communications and Knowledge Management Specialist at United Nations Capital Development Fund (UNCDF)

appraisal fees in instalments, provides technical support, pre and post-investment Business Development Services (BDS) including support to SMEs to prepare bankable proposals.

The main objective of this article is to share UNCDF's experiences in providing affordable finance to agro-processing SMEs in specific value chains identified based on regional value chain mapping in Northern Uganda. It delves into details of the implementation, lessons learned, and policy recommendations for improving access to affordable finance.

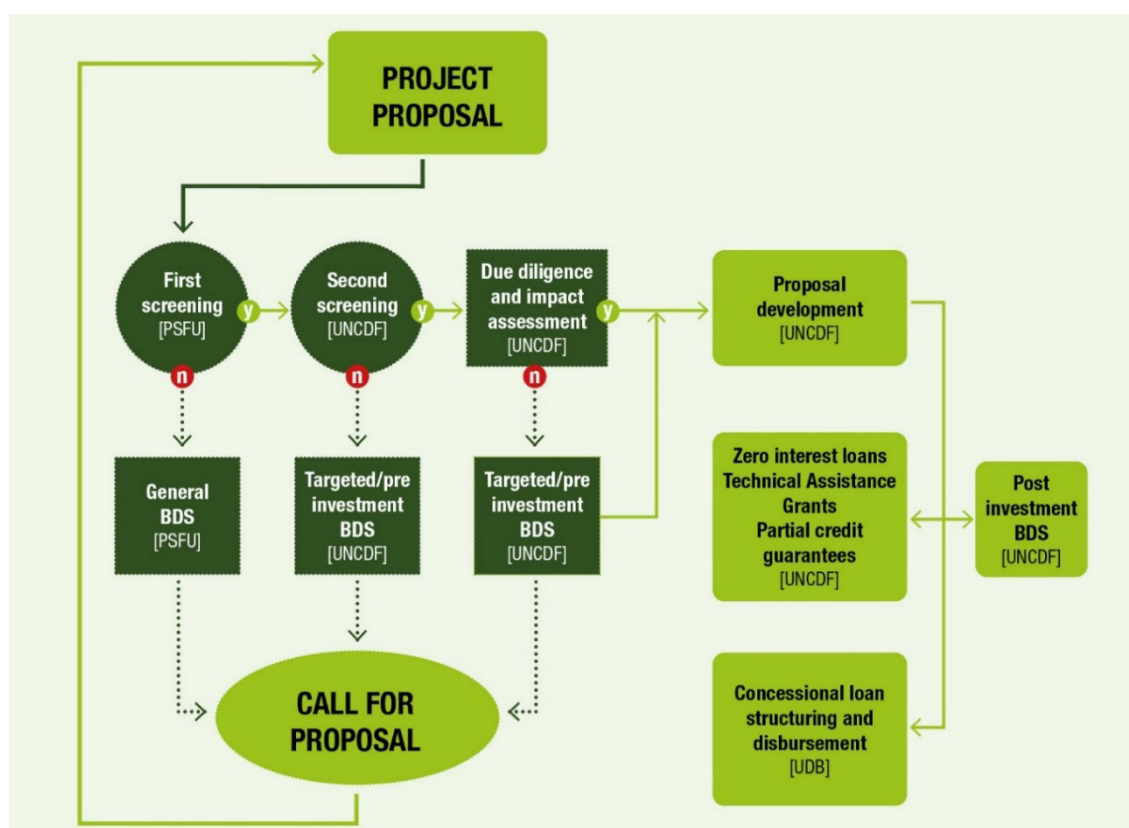
4.1.2 The START facility: Intervention, operation, conduct and structure

To address the “missing middle” in agricultural financing, UNCDF, in partnership with Private Sector Foundation Uganda (PSFU) and Uganda Development Bank (UDBL)

and with the financial support of the EU, initiated the START facility (Figure 24). The facility offers concessional loans at 10 percent with a repayment period of five years, including up to 12 months' grace period for agricultural value addition projects in Northern Uganda. The fund targets projects with a financing need of between UGX 40 million to UGX 400 million. The START facility is a blended finance facility that provides a customised mix of BDS, project development and structuring services, and financial products managed by PSFU, UNCDF and UDBL.

To access financing under the START facility, SMEs must, among other factors, fulfil the following requirements; be a registered business entity, be involved in eligible agribusiness activities based in targeted districts of northern Uganda, be ready to contribute 25 percent of the financing gap and submit a complete application following the call for proposal guidelines.

Figure 24: The conduct of the START facility



Source: START/DINU-UNCDF 2020

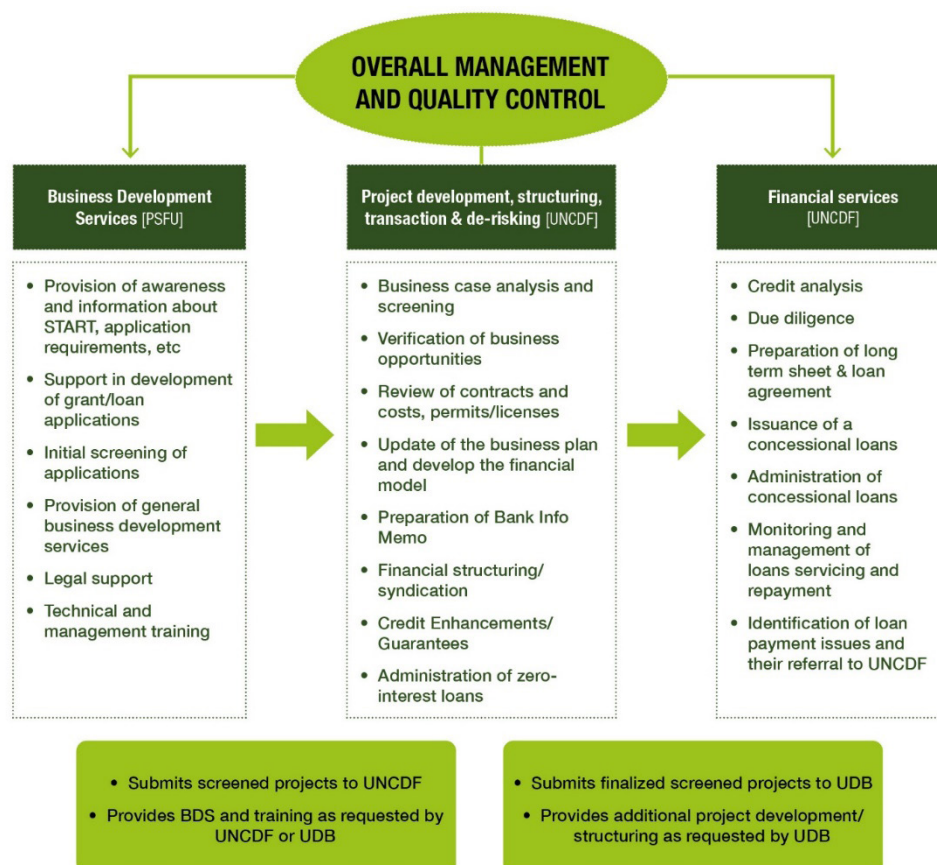
In the arrangement, PSFU provides general BDS to potential applicants (Figure 25) to enable them to design and submit acceptable applications. This BDS covers awareness and information about application requirements, other relevant information, and guidance on how to complete the application. When the call for proposals closes, PSFU conducts the initial screening and long-lists applicants who meet the eligibility criteria (Figure 25).

UNCDF undertakes a second screening to shortlist the applicants. Long-listed applicants who fail to be shortlisted receive targeted pre-investment BDS to improve their project proposals and reapply during subsequent proposals. UNCDF works with the shortlisted applicants to undertake due diligence focusing on the applicants' technical and financial aspects. Targeted pre-investment BDS is administered to SMEs to address gaps before advancing to prepare full project proposals

acceptable for START facility financing at UDB. Where necessary, UNCDF provides partial credit guarantees and zero-interest loans to unlock the funding for SMEs from other financial institutions where businesses have a financial requirement above the facility's upper limit of UGX 400 million.

Lastly, UDBL finances eligible projects with concessional loans at an interest rate of 10 percent per annum. UDBL covers all services related to issuance of the concessional loan (appraisal visits, credit analysis and evaluation, preparation of the term sheet, concessional loan agreement) and administration of the facility (monitoring, repayments and servicing) at 1 percent of the approved loan value. UDBL's service charge (1%) is significantly lower than the 3-5 percent loan processing/appraisal fees charged by financial institutions in Uganda.

Figure 25: Structure of the START facility



Source: START/DINU-UNCDF, 2018

4.1.3 Performance of START facility

i) Quality of project proposals received

Applications to the START facility are initiated through a call for proposals published in the local newspapers, i.e. New Vision and Daily Monitor, websites of implementing partners, social media sites, among others. In addition, the team conducts information sessions on regional radio stations to ensure wide reach to potential applicants. The applicants are given 90 days to submit their project proposals. Applicants must be registered agribusiness entities (limited companies, cooperatives and associations) operating in Northern Uganda, focusing on agricultural value addition. Priority commodities include cassava, coffee, soya, sesame, sorghum, rice, apiary, vegetables, groundnuts, and livestock. SMEs contribute 25 percent of the total value of the proposed project either in cash or in kind. While the need for registration eliminates many informal SMEs, the eliminated ones are encouraged (and a few supported), through the general BDS program, to get registered.

By providing sufficient sensitisation on what makes up owner contribution to project cost, most applicants are able to fulfil the facility conditions.

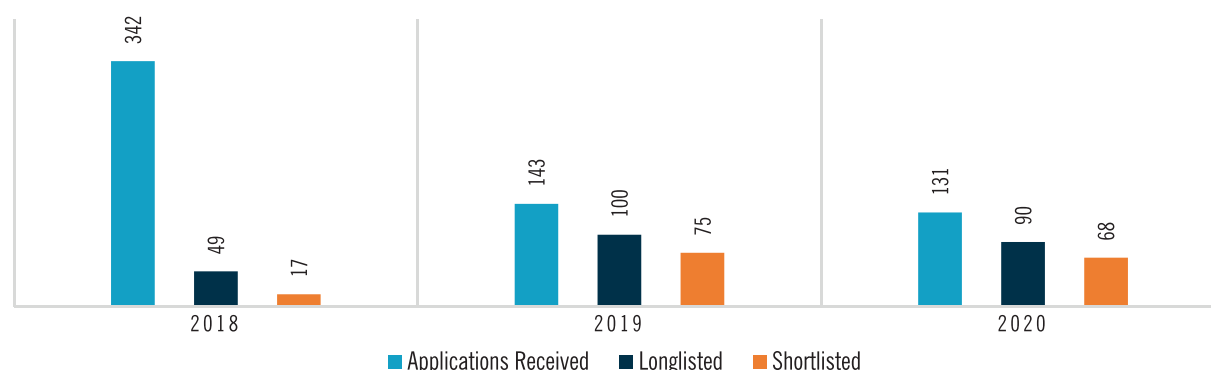
Since its inception, the facility has issued three calls for proposals, in 2018, 2019 and the last one closed in March 2021. For the first proposal call, only six (out of

342) projects were accepted for project development and submission to UDB for financial closure. The low project acceptance rate (1.8 percent) revealed the need for deliberate pre-investment BDS. The BDS offered includes addressing gaps in financial records and financial management systems, reviewing feasibility plans, management and governance aspects, raw materials supply and improving business projections, among others. BDS support builds the capacity of companies to develop bankable projects, which is a requirement for accessing the facility and other resources from UDB and other financial institutions. Government's arms responsible for providing this BDS support include the MTIC and or Uganda Investment Authority (UIA). On behalf of the private sector, there exists USSIA, Federation of Small and Medium Enterprises (FSMEs) and agricultural commodity production and marketing organisations.

Since the START facility management adopted the targeted pre-investment BDS component in 2019, there has been an improvement in the quality of proposals submitted (Figure 26). Subsequently, an increase in the number of SMEs shortlisted and the resulting pipeline of bankable proposals. There is a better understanding of the requirements of the START facility.

As shown in figure 26, while the project received the highest number of applications (342) in 2018 under the Call for Proposal 1, the facility also had the highest

Figure 26: Progression of Applications Received



Source: START/DINU-UNCDF 2020

number of rejections, with only 5 percent (17 out of 342) applications shortlisted for proposal development and possible financing. Under Call for Proposal 2, 143 applications were received, out of which 52 percent (75) were shortlisted. Although there was a drop in the number of applications received (from 342 to 143), pre-investment BDS has been beneficial to the SMEs, as evidenced by higher rate of shortlisting (52 percent) achieved in both 2019 and 2020. This was due to the better quality proposals submitted.

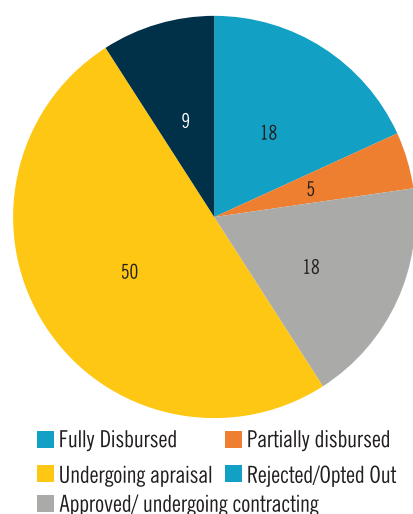
ii) Disbursement of concessional loans

The START facility aims to disburse €2,500,000 (about UGX 10 billion) to 40 SMEs over four years (2018-2022). Since issuing the first call in 2018, there has been a steady increase in the number of SMEs shortlisted for further proposal development and financing (Figure 27). From only 18 projects in 2018, 75 and 68 projects were shortlisted in 2019 and 2020 respectively.

However, the rate of disbursement has been slow. Supporting an individual business to develop a bankable proposal can be a lengthy process and it depends on the readiness and responsiveness of the business. Many SMEs still lack accurate business records and they take long to put together the relevant documentation. Because of the in-depth BDS process, some SMEs opt out of the pipeline due to a lack of time and commitment to address the gaps identified during the BDS support.

Another issue is the cost of loan disbursement. For a loan to be disbursed by UDB, an SME is required to pay a one percent appraisal fee and have their collateral valued. Many SMEs are not readily liquid, particularly under the stress of COVID-19, and have struggled to raise funds to cover these costs, thus delaying the disbursement. Out of 22 full project proposals submitted to UDBL, only four have been fully disbursed, one partially disbursed, and another approved four, undergoing contracting (Figure 27).

Figure 27: Status of fully developed projects, (%)



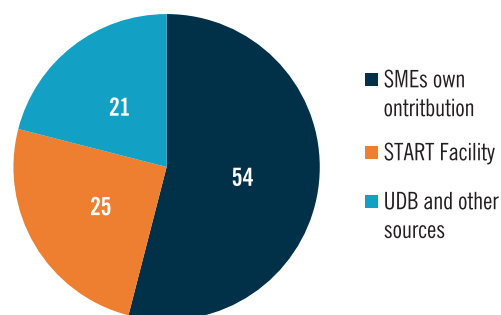
Source: START/DINU-UNCDF 2021

iii) Pipeline development

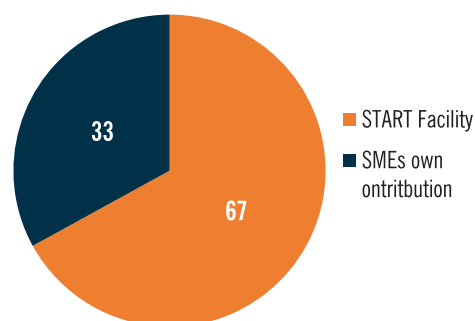
UNCDF has prepared a total of 32 projects for financing. This includes 22 projects from the START facility and 10 projects from the Small Business Recovery Fund (SBRF) (Figure 28).

Figure 28: Pipeline status as of April 2021, (%)

CONCESSIONAL LOANS: 22 projects
Total project size: UGX 29,393,502,490



SMALL BUSINESS RECOVERY FUND: 10 projects.
Total project size: UGX 600,556,275



Source: START/DINU-UNCDF 2018

The SBRF is a new auxiliary facility within START that was launched in June 2020 to support agribusiness SMEs in overcoming the liquidity shortage due to COVID-19. This development demonstrates the flexibility and adaptability of the model behind the START facility, which allows it to respond to evolving challenges quickly and effectively.

The START facility attracts high financial leverage from SMEs and other financiers for every shilling invested under concessional loans and the SBRF. Over 50 percent of project cost under concessional loans comes from the SMEs in cash or in-kind contribution, with UDBL and other financial partners providing at least 20 percent (Figure 28).

4.1.4 Lessons learned

- a) Business development services are critical in building the capacity of SMEs to develop bankable projects.
- b) Many SMEs have good business ideas, but they struggle to access financing because of lack of registration and accurate information to establish their financial position. The businesses that have benefited from BDS support have appreciated the mentoring support provided.
- c) There exists high demand for affordable medium-term financing, as demonstrated by the high number of applications received in response to the three Calls for Proposals. The number of participants at the pre-submission information sessions, especially in Acholi, Lango and Teso sub-regions also points to the high demand. In addition, several proposals originating from outside the project's geographical scope (Northern Uganda), were a sign of unmet demand across the country.
- d) There is potential for SMEs to leverage the funding from the facility. In this regard, more than 50 percent of the total project cost has been met from SMEs' contributions. This leverage capacity could be used to attract funding from other financing sources.

- e) Streamlining START project activities and processes amongst partner implementing institutions have ensured that accessing START funding is seamless. The automation of the application and screening processes is expected to further reduce the time taken to access financing from the facility.

4.1.5 Challenges

a) *Lack of formal registration*

To access the START funding, a business must be a registered company, a cooperative or an association. However, many eligible businesses are not registered. In the Karamoja sub-region, most of the prospective applicants are not formally registered, and this presents a challenge to accessing the facility. Only one out of the 22 projects submitted to UDBL is from the Karamoja sub-region, a challenge, as Karamoja continues to lag. Yet as part of the more extensive DINU programme, the START facility aims to bring the development of Northern Uganda at par with the rest of the country.

b) *Liquidity/working capital challenges*

SMEs must pay appraisal fees and meet the cost of valuing the collateral before accessing the funding. However, many businesses are not readily liquid, and this has delayed disbursements. The COVID-19 pandemic further exacerbated liquidity challenges for SMEs across the country. After three months of nationwide lockdown, 85 percent of businesses went into financial distress and struggled to resume operations without access to liquidity. (UNCDF, 2020). UDBL has agreed to have the SMEs pay half (0.5 percent) at the start of the loan appraisal and the balance after issuing loan offer documents.

c) *Lack of basic business records*

Most SMEs lack accurate and reliable business records necessary for evaluating their financial capacity. Records such as purchases, sales, expenses, stock, assets, liabilities, among others, are neither available nor reliable. The absence of these essential records makes it difficult to have reliable audited financial reports, yet most SMEs

have been in operation for several years. Consequently, such SMEs are, at best, treated as startups or are wholly disregarded since it is not possible to establish either their financial performance or their true financial position. While the facility can support SMEs through the targeted pre-investment BDS to get their books in order, this is a lengthy process as the required information is not readily available.

d) *Limited skilled personnel*

Many SMEs struggle with limited skilled personnel, as most of the individuals managing critical business operations (accounts, human resource, marketing) are temporary staff. This is mainly because many SMEs find it expensive to hire skilled personnel, often relying on family members and friends. Some of the staff have full-time positions elsewhere and cannot fully commit to the SMEs, thereby affecting business operations. This partly contributes to the lengthy BDS process as the staff cannot commit to the process, full-time.

e) *Lack of collateral*

Many SMEs lack the required collateral to secure credit from financial institutions. Where collateral is available, it is of low value, cannot easily be converted to cash or is non-transferable, thus unattractive to lenders. According to FSDU (2017) only two out of ten Ugandan adults possess a land title. Yet, land is the most common form of collateral. Even when the collateral is available, the high costs of security perfection⁴ and the long process also leads to some of the SMEs failing to meet collateral requirements. As part of the more extensive DINU programme, UNCDF is working with the Ministry of Lands, Housing and Urban Development to expand the use of certificates of customary ownership so that they can qualify as acceptable collateral.

f) *Gender gap in agri-business SMEs*

The START facility aims to support projects that promote women's economic empowerment. Women make up over 60 percent of all agricultural workers and own 40 percent of SMEs in Uganda. While analysing the results

of the second call for proposal issued in 2019, only 12 percent of the SMEs had women as majority shareholders. Limited land ownership means many women cannot provide the required collateral (Norfund, 2020). This highlights a significant structural and socio-cultural barrier to women's access to and exploitation of economic opportunities, such as the START facility, and hinders inclusive economic development.

4.1.6 Policy options

i) **Government should put in place the missing policy and legal environment for this model to be used more widely.**

For example – reviewing laws and regulations to widen forms of collateral acceptable to bank regulators, allow for more realistic loan classification and restructuring for agricultural loans, drafting of new laws for land titling and to accommodate financial products like guarantees, leasing, equity and venture capital financing that are currently 'uncomfortably' accommodated under basic banking legal provisions.

ii) **Government needs to institute a legal framework to diversify the SMEs' collateral options,**

to reduce the challenge of collateral, which continues to be the biggest bottleneck for SMEs aiming to access finance. In this regards, Government should support issuance of Certificate of Customary Ownership and institute the necessary legal and regulatory framework for financial institutions to lend to *bibanja* holders. In addition, the process of security perfection (document registration, registration of mortgage deeds) by Uganda Registration Services Bureau (URSB) and the Ministry of Lands, Housing and Urban Development, need to be simplified and the processing cost reduced.

iii) **Government needs to leverage BDS programmes embedded in existing credit programmes and financial institutions³.**

These scattered BDS initiatives need to be developed into well-structured short courses and hands-on business support. The aim of structuring the BDS is partly to ensure input from the

financial sector and from the value chain actors. It will also enable the BDS initiatives to be evaluated basing on how many enterprises they make bankable or investment-attractive.

iv) **Government should operationalise a robust agricultural finance policy.** Due to the cross-cutting nature of agricultural finance, and the fact that it does not have a line ministry at the centre, or a department at local government level, there is need for strong coordination between the MDAs that handle issues that affect the financing of agriculture. An effective ‘agricultural finance support structure’³ at policy level, is therefore necessary.

Endnotes

- 3 Forced sale value (FSV) is the value a property may sell for in a quick sale, usually at auction.
- 4 A perfected security interest is any secure interest in an asset that cannot be claimed by any other party
- 5 BoU's ACF, UDBL's Special Programs, Pride Microfinance MDI Limited, among others
- 6 The support structure could be a Policy Committee on Agricultural Finance

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4.2 ENSURING REGIONAL MARKETS FOR UGANDA'S MAIZE EXPORTS

Paul BASUDDE¹



4.2.1 Introduction

Maize is one of the most important cereal crops in Uganda. It is one of the 18 agricultural commodities that Government considers to have the potential to considerably contribute to increasing rural incomes, improve livelihoods, as well as offer food and nutrition security under the Parish Development Model (MoFPED, n.d). Maize doubles both as a cash and food crop for most smallholder farmers. It is grown in all parts of Uganda—especially in Eastern Uganda. According to the 2018 Annual Agricultural Survey, at least 4.26 million households or 55 percent of all agricultural households, were engaged in maize cultivation (UBoS, 2019). Maize has linkages with other sub-sectors within agriculture. For example, it is a major ingredient in poultry and livestock feeds. In terms of food and nutrition security, maize compares favourably with root and tuber crops as an energy source because it contains large quantities of carbohydrates, proteins, vitamins, and fats in the kernels.

Uganda is a net exporter of maize, with Kenya as its leading

export destination. Export volumes were estimated at 461,697 tonnes in 2018 (ITC and UN COMTRADE, 2020). Similarly, the earnings from maize exports increased by more than 40 percent over four years—from USD 63.1 million in 2015 to USD 89.5 million in 2018. Uganda's unit value per tonne exported varies depending on destination. On average, the unit value for all Uganda exports declined from USD 257 in 2014 to USD 194 in 2018 (*ibid*). Other countries where Uganda exports maize includes Rwanda, Sudan, Burundi, Central African Republic, DRC, South Sudan, and Tanzania.

Despite Uganda's ability to produce large quantities of maize both for the domestic and export market, the quality of the produce has threatened access to markets in the region. Consequently, Uganda's maize has been banned time and again from target regional markets. Recently, Kenya announced an abrupt ban on imports of maize grain from Uganda and Tanzania. The communication to that effect cited high levels of mycotoxins, poisonous germs, in the maize imported from the two countries alleging that particularly the aflatoxins and fumonisins discovered therein are known to be carcinogenic, i.e. Cancer causing. The main objective of this article is to therefore, to highlight

¹ Author: Paul BASUDDE, Principal Policy Analyst, Ministry of East African Community Affairs (pbasudde@gmail.com)

the steps that GoU, in collaboration with other relevant private sector, civil society and development regional partners, should undertake to guarantee a market for the country's maize.

4.2.2 A review of the regional market performance for Uganda's maize

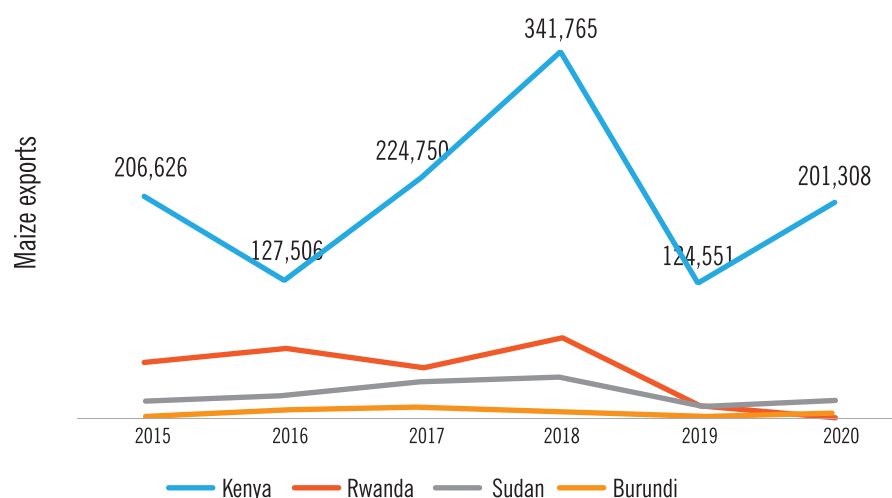
Uganda is a net exporter of maize, with Kenya as its main export destination (Figure 29). The volume of maize exports declined to 127,506 tonnes in 2016 from 206,626 tonnes in 2015 due to a devastating drought that affected most of the country (UNMA, 2016). In 2017, the volume of maize exports increased to 224,750 tonnes due to a bumper harvest in the country, which led to East Africa's grain traders buying maize from Uganda at about half the international price². In 2018, Uganda registered another bumper harvest, causing maize exports to register a 52 percent growth to 341,765 tonnes.

However, Uganda's maize exports were not sustained due to another drought in 2019, which resulted in the reduction of volume of maize exports to 124,551 tonnes, affecting exports. The volume of maize exports was also affected by the closure of border points between Uganda

and Rwanda in March 2019. In 2020, the estimated export volumes were 201,308 tonnes (Figure 29). In value terms, there was a 26 percent increase from USD 52.7 million (2019) to USD 66.2 million in 2020. This was on account of an anticipated domestic shortage in Kenya. In addition, reduced conflict in South Sudan, also enhanced regional trade in general, and Ugandan maize exports performance, in particular.

Uganda's unit value per tonne of maize exported depends on the destination. Table 4 shows that, on average, the average unit value for Uganda's maize exports increased from USD 257 in 2014 to USD 295 per tonne in 2020. Table 4 further shows that in 2020, Uganda fetched the highest value for maize exported to Rwanda (exported unit value at USD 371 per tonne) compared to her other markets. This was, possibly because of the reduced export volumes, which led to a price increase due to the high demand for Ugandan maize in Rwanda. From her biggest market (Kenya), Uganda received USD 244 per tonne of maize exports. The price differences are explained by the competition among the African countries for the Kenya market with the stiffest completion coming from Zambia and Tanzania.

Figure 29: Uganda's Maize exports, by export destination (2015-2020), Tonnes



Source: Author's construction utilising data from ITC and UN COMTRADE (2020)

Table 4: Trends in Uganda's exports in destination markets, by value (USD per tonne)

Importer	2014	2015	2016	2017	2018	2019	2020
Sudan ³	249	381	358	447	338	324	272
Kenya	270	217	218	199	184	285	244
Burundi	270	208	392	370	170	278	292
Rwanda	139	205	263	244	167	204	371
Average ⁴	257	225	251	236	194	273	295

Source: Author's construction utilising data from ITC and UN COMTRADE (2020) Database

Note: Unit values are for all maize products, as it was not possible to disaggregate product by product.

However, export of Uganda's maize in the Kenyan market also experiences other challenges, like rejections on the grounds of poor quality. While Uganda is the region's only consistent surplus producer of maize grain, it has always found problems accessing markets, including the region's largest grain market, Kenya.

4.2.3 Historical maize export bans and their consequences

Export bans on Uganda's maize are not new. In 2018, 600 metric tonnes of maize were returned by Kenya to Uganda, with claims that the maize contained traces of aflatoxins. This negatively affected traders who had already bought maize and were preparing to export. In the same year, there was a ban on Uganda's dry products (including maize). This emanated out of the refusal of the Tanzania government to issue import permits to its importers of maize from Uganda. In November 2018, Ugandan traders demonstrated over the restriction imposed by Tanzania at the Mutukula border.

More recently (March 2021), Kenya announced an import ban on maize grain from Uganda, citing high aflatoxin levels discovered therein with high cancer-causing potential. A few days after the Kenyan ban, Burundi followed suit by banning all maize grain and flour imports from Uganda from entering the country for six months.

The Kenya and Burundi bans on Uganda's maize heavily affected the commodity trade as well investments into the maize value chain. This is because some exporters had borrowed and invested heavily to purchase the maize which ended up rotting on trucks, with some stranded as far away as Nakuru in Kenya. In Bukuya, Uganda locals resorted to selling their maize at UGX 150 per kilogramme,

a price at which they could hardly recover any of their investments. In the Lango sub-region, where many people depend on maize for food and income, the price charged by middle men, who had stocked heavily, fell to UGX 200 per kilogramme. Because of the bans, maize producers could therefore not raise the money needed to pay school fees and to purchase farm inputs, fertilisers and supplies.

4.2.4 Required investments for quality improvement in the maize value chain

To overcome some of these export bans in destination markets, Uganda could pick lessons from Ethiopia. Over the past years, Ethiopia has made considerable progress in carrying out nationwide and targeted surveillance for selected diseases, establishing and implementing a quality assurance program, training staff in the regional laboratories, and establishing a suite of laboratory tests to support disease control and exports. Adoption of the Ethiopia model can improve quality in the maize value chain given that analytical capacity shall have been built to undertake residue testing in maize and other grains. The quality in the maize value chain can be further improved with the setting up of UNBS regional analytic laboratories (first pilots in the major cities of Mbarara and Gulu). These regional laboratories should be adequately staffed, funded and provided with the necessary supplies such as testing kits and consumables.

4.2.5 Conclusion and emerging policy options

Although politically, the decisions by Kenya and Burundi to ban maize exports from Uganda contradicts the spirit of East African integration and a Common Market, the two countries may have been driven by legitimate concerns for safety of their citizens. The presence of aflatoxins in Uganda's grain is not new. Government's effort to distribute COVID-19 relief food to the urban poor of Kampala and Wakiso was frustrated and delayed because of the poor standards of maize flour that was supplied. Government rejected food from those companies whose flour did not meet the required standards.

In conclusion, national policies, legislation, regulations and surveillance programs need to be strengthened. Country-wide surveillance for aflatoxins needs to be complemented with field testing. At the national level, there is a need to build laboratory diagnostic capacity.

Other options for reducing future bans on maize exports include;

- i) Regional dialogue to facilitate trade challenges beyond each countries' borders. The Joint Permanent Commission between Uganda and Kenya, which aims to strengthen ties between the two countries, should be utilised to provide a way forward on the thematic cluster of Economic and Trade Affairs, under which, maize issues fall.
- ii) Review of the Agricultural Extension Policy and System to close extension service gaps. Uganda's experience with aflatoxin-infested maize demonstrates that farmers do not get adequate support in basic agronomic practices and/or quality controls, which are critical components of extension services. Consequently, Uganda has to review the gaps in its Agricultural Extension Policy and System in relation to commodity quality promotion and regulation. Since the Local Governments Act CAP 243 (Second Schedule)

arrogates the responsibility of providing extension services to local governments, a review of the extension policy should introduce new alternatives that can facilitate local governments to effectively deliver on their mandate.

- iii) Promote the establishment of group-level storage facilities. As per the 2015 National Grain Trade Policy, the Government of Uganda needs to promote the establishment of group-level storage facilities (silos). Due to the substantial cost involved, Public-Private Partnership (PPP) arrangements led to the signing of a memorandum of understanding (MoU) with two United Kingdom (UK) companies (M/S Alvan Blanch Development Company and Colas Limited). The MoU covers the manufacture, supply installation and commissioning of multiple post-harvest processing systems, among them 19 bulk storage facilities with a capacity of 2,000 MT. Scaling down such initiatives to parish level will contribute to guaranteeing quality and reducing the development of aflatoxins at the storage stage.
- iv) Provision of clear and strong value chain linkages. The new PDM approach should be made in line with the zonal economic planning strategy adopted by Government in the NDP III. There should be clear and strong private sector linkages between the parish and zonal levels on one hand. On the other, there should be strong links between farmers, cooperatives, and SMEs located in Economic Zones. This recommendation relates to Pillar 1 (Production, Processing and Marketing) of the PDM which aims to promote production and processing of one or more of the 18 priority commodities, maize included.
- v) Government support to cooperative development. Due to the high number of small agro-producers, processors and commodity sellers who cannot all be reached by MAAIF's DCIC, it is important to nurture self-regulation among producers and exporters so that they either individually or collectively take responsibility for ensuring that phyto-sanitary practices and standards required

for a particular market are met.

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- 3 Includes South Sudan
- 4 For all importers

4.3 CAN NIGERIA'S BLOCK FARM MODEL BE AN ALTERNATIVE TO FINANCING VALUE ADDITION OF UGANDA'S CASSAVA?

Ocung Samuel¹



Picture credit: <https://ugandaexports.go.ug/news/2/Export%20cassava%20flour>

4.3.1 Introduction

Cassava has gained importance in the Ugandan household economy and nutrition in the past decade. The Agriculture Sector Strategic Plan 2015/16 to 2019/20, recognises cassava as a priority crop for poverty alleviation, increasing food and nutrition security, drug industry, animal feed manufacturing and bio-fuel ethanol industries (MAAIF, 2016). Cassava is also an essential source of food and income. Moreover, it is one of the emerging market-oriented commodities with the potential to improve the livelihood of smallholder farmers in Uganda. In addition, the crop is an essential part of the diet for many households, providing essential nutrients like carbohydrates and is available all year round.

According to UBoS (2020), the 2018 national production

of cassava was 4.4 million MT, from an estimated planted area of 940,000 Hectares. A significant percentage (52.1% or 2.3 million MT) of this production is realised in the second season (August – early December). The national yield of cassava was estimated to be 8.7 MT/Ha, with Bunyoro (11.6 MT/Ha) registering the highest yield while Karamoja registered the lowest (4.3 MT/Ha). By sub-regions, Lango (755,400 MT), North Buganda² (613,700 MT) and Bunyoro (602,500 MT) were the highest producers of cassava in 2018, while Elgon (52,000 MT), Karamoja (48,700 MT) and Kigezi (32,200 MT) had the least production.

Uganda is actively pursuing agro-industrialisation of its value chains. In the NDP III, cassava is among the 18 commodities prioritised to foster a sustainable agro-industrialisation agenda in Uganda (NPA, 2020). Some of the potential products that can be obtained from cassava include dry chips, hard pellets, high-quality cassava flour

¹ Country Director, Sunflower for Rural Empower and Integration in Value Chain Development (cungsamuel2007@gmail.com)

(HQCF), native and modified starches, sugar syrups, industrial and extra neutral alcohol. Cassava products have important industrial applications for the plywood, textile, bakery, pharmaceutical, alcohol, paper and food industries.

A review of NDP I, II and III reveals that, starting from the period 2010/11 – 2014/15, the Government of Uganda pursued a commodity-focused approach to identify and support value chains of strategic importance. Some of the factors that guided its selection included a high return on investment, zoning, contribution to export earnings and poverty reduction.

However, most FSPs do not finance cassava-related enterprises (Kilimo Trust, 2012). Most FSPs, especially banks, prefer to finance maize, rice, and beans rather than cassava. This is because for long, cassava was not considered a commercial crop. This article therefore, highlights the gaps in the previous financing interventions to support the Cassava Value Chain (CVC). In addition, the article presents financing modalities that have worked elsewhere, which Uganda could adopt.

4.3.2 Cassava financing in Uganda

4.3.2.1 Donor financing towards the cassava value chain

In the four fiscal years prior to 2019/2020, Uganda's approved budget and Vote Performance Reports do not reflect any funds from donors for financing agricultural value chain development. In the fiscal year 2019/2020, UGX 1.5 billion was recorded in the Vote Performance Report of Uganda's approved budget as having been received from donors for agriculture value chain development, but with a financing gap of UGX 20.4 Billion.

4.3.2.2 Private sector financing towards the Cassava value chain

There has been limited private sector engagement in

cassava, compared to the traditional cash crop value chains (coffee, tea, cotton). Consequently, the CVC in Uganda is less developed compared to other cassava-producing countries. In addition, financial institutions in Uganda do not prioritise funding the CVC, thus making it difficult for the private sector to access financing for investment in cassava enterprises. Currently, CVC in Uganda primarily focuses on primary level products, mainly fresh cassava, hard pellets and flour for food. These products have low prices and are therefore funded on a small scale, mainly by local traders. The small scale nature of private sector actors in CVC makes it challenging to estimate their contribution to the financing of businesses in the value chain. Moreover, Uganda does not have a central database for the financing of CVC.

However, the increasing demand for CVC products, as inputs for industries, calls for addressing challenges that affect CVC efficiency and funding. The high demand for ethanol to make alcohol-based sanitiser is expected to continue, given sanitation demands imposed by COVID-19 pandemic. Ultimately, Uganda needs an efficient financing model to develop the CVC.

4.3.3 Financing value addition in the Cassava value chain: The case of Nigeria

4.3.3.1 The Nigerian model of financing CVC

The Block Farm Model (BFM) in Nigeria presents insights on how inclusive financing of the CVC can be achieved.

How the block farming model works

A block farm is a dedicated piece of land under the control of the processor that ensures smallholder inclusiveness in supply chains. Each smallholder is allocated an appropriate piece of land for cultivation and provided with a range of technical services, including training, inputs and extension services. The technical services enable farmers to access credit, improve productivity and achieve food security. The technical services are also provided through

a distinct service delivery model. In practice, setting up of a BFM program begins with the processing company acquiring land on which it creates the block farm. The land is then shared between local smallholder farmers who each manage a block of about two hectares each. The plots border one another, making delivery of technology, advice and training efficient. The parties agree upon the projected costs and revenues at the beginning of each planting season.

The service delivery model (SDM) provides various technical services, including training and agricultural inputs within the BFM. Its role is to improve farmers' capacity, and therefore the effective growing and harvesting of sufficient crops to meet processors' needs. The SDM plays a central role, linking up the components as follows;

1. The **processor** takes on the role of the off-taker, committing, in form of a memorandum of understanding or purchase agreement, to buying the crops from the farmers. The purchase terms, including the crop price and costs involved in the production, are agreed upon by all the parties before commencement.
2. The **service provider (SP)** delivers structured services, including land preparation, inputs, training, transportation, mechanisation, logistics, and management. The SP may be part of the processing company or an independent entity, contracted to deliver selected services to the smallholders at agreed times and negotiated prices. The SP oversees the management of the land and provide specific services to the farmers on credit. Upon the crop sale to the processor, the cost of these services is deducted, and the SPs receive 50 percent of the costs. The balance is paid when the processor pays for the harvested raw materials.
3. The **development finance institution (DFI)** provides credit to smallholders by pre-financing the service provider's services on agreed terms. The DFI also provides options to de-risk investments.

A commercial bank is used as an intermediary and it is responsible for deducting the SPs costs plus interest, and the balance paid to the farmer.

What needs to be in place for the model to work?

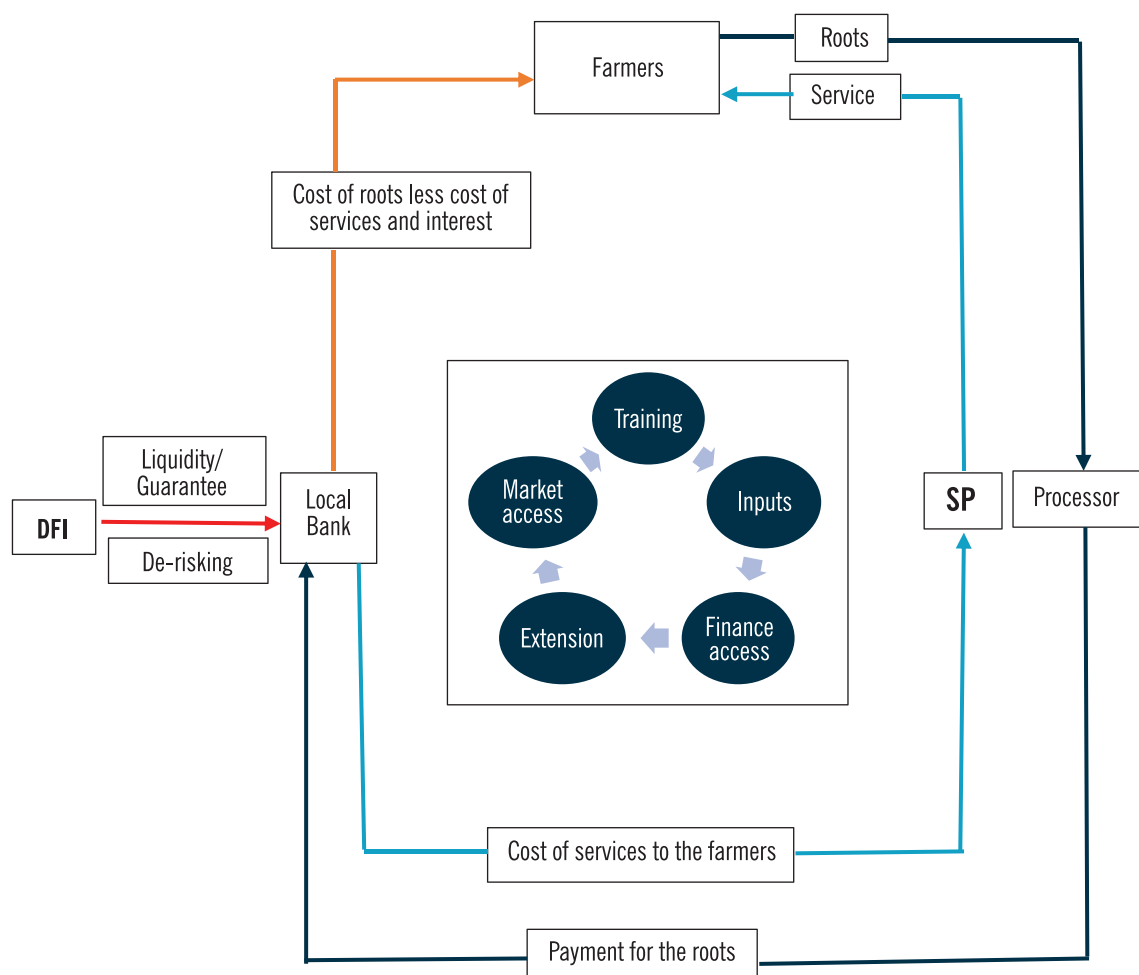
The IDH³ block farming model is unique from other out-grower schemes. Generally, out-grower schemes involve interdependent relationships through which processing companies offer technical services to farmers in return for guaranteed access to their produce – this is true of the block farming model. However, most out-grower strategies rely on farmers managing their land. This means processing companies lack complete control of land management and cannot guarantee food quality, safety standards or quantities. IDH block farming model is unique in combining processors' control over farming land with access to finance and agronomic training leading to community food security, reduction in side-selling and fewer postharvest losses. This provides a win-win arrangement between processing companies and smallholder farmers that lacks in other out-grower schemes.

Description of main actors in the model

The main actors in the BFM include the DFI, SP, Processors, Farmers and Local banks (Figure 30). In the case of Nigeria's block farm model, the actors include Rockefeller Foundation, Psaltry International Limited (PIL), IDH, the Sustainable Trade Initiative and farmers engaged in out-grower block farms. With support from Rockefeller Foundation, PIL is one of the beneficiaries of a fund by IDH to establish a sustainable and inclusive supply chain through an out-grower project using the BFM.

The IDH Cassava Technical Assistance (TA) fund was created to support processors build inclusive supply chains and achieve sustainability at scale for the industrial processing of cassava in Nigeria (IDH, 2020). The IDH Cassava program intervention aims at achieving industrial cassava development in Africa, starting from Nigeria, by promoting sustainable and inclusive supply chains for cassava processors. In addition, together with

Figure 30: The IDH block farming model



Source: IDH the sustainable trade initiative <https://www.idhsustainabletrade.com/publication/block-farming-model/>

the partners, IDH strives to resolve the challenges in the cassava supply chain, by enabling processing factories to have a consistent supply of cassava to fully utilise their production potentials and in the process, empowering smallholders through increased productivity and income. In Nigeria, industrial cassava processing is growing with the potential to save the country up to USD 275 million annually from imports of wheat, starch, flour, and other ingredients for industrial food production.

Services provided in the BFM

Through the project, IDH aimed to improve smallholders' knowledge; and access to production inputs so that they produce sustainably for improved livelihoods. An essential component of the project is service provision. As a service

delivery operator, PIL provides support services to farmers through internal resources and third-party engagements. In the model, 1,000 farmers (block farmers) were directly linked to PIL's supply chain through the block farm, allocated two hectares of land each and supported with input services such as mechanisation, improved planting materials, and agrochemicals. PIL also provided pre-financing services for inputs which the farmers repaid from sale of their harvest. With service provision, productivity was enhanced, supplies for processors increased and eventually production capacity strengthened.

Improvement in the supply chain of cassava resulting from the BFM

The key tenets of the BFM are supply chains inclusively

and sustainably, with a block farm as the focal point of production. In the case of Nigeria's cassava industry, the model includes complementary measures to ensure processors have consistent supply of cassava. The model works by structuring a mutually beneficial relationship between processing companies and smallholder farmers using a combination of financial, educational and technical services to kick-start effective production. The BFM results into a solid foundation for an inclusive, long-term partnership (between processor and farmer) with the shared goal of industrialising a particular crop (in this case, cassava) without putting the food security needs of local communities at risk.

A well-implemented BFM program can provide a sustainable supply of raw materials to the processor, improve income and livelihoods for smallholders, and support local economic growth through the promotion of small-scale sourcing among multinational food companies. Taking the example of the BFM in Nigeria, farmers were able to increase yield by almost 60 percent by the end of 2020 (IDH, 2020). Moreover, among the block farmers, the yield increased by 57 percent compared to the national average. The farmers attributed this to the introduction and learning of good agronomic practices, which was the core intervention funded by IDH.

Likewise, farmers within the block farm earned an income of USD 1,000 per hectare compared to community farmers who earned only USD 640 per hectare. Through the project, there was a significant difference in the income of block and community farmers of at least 57 percent. Furthermore, the block farm project guaranteed a business case for both farmers and processors and enhanced their capacities in terms of quantity, quality and consistency of supply. In addition, the processor has control over the quantity and quality of what is produced within the block farm while farmers have ready access to credit and a guaranteed market for their cassava. A total of 500 farmers were pre-financed with USD 130,032 and USD 244,098 in 2018 and 2019 respectively.

4.3.4 Application of the Block Farm Model on the cassava value chain in Uganda

The structure of CVC in Uganda (Figure 31) indicates several challenges. The structure is complex, with many middle agents, who take a significant share of profits that farmers would otherwise receive. The CVC structure is able to deliver only a wide variety of primary products. Farmers link individually with processors, service providers and financing institutions. There is little or no certainty regarding service provision, access to credit and markets.

For the BFM to succeed in Uganda, Government needs to play an intermediary role in bringing the different parties together and to structure inclusive and sustainable interventions in a BFM beneficial to both the farmers and processors. Strengthening of PPPs is a key step in building structural linkages of CVC. In this case, it is important for government MDAs to support farmer organisation building and linking them to processors and sources of financing.

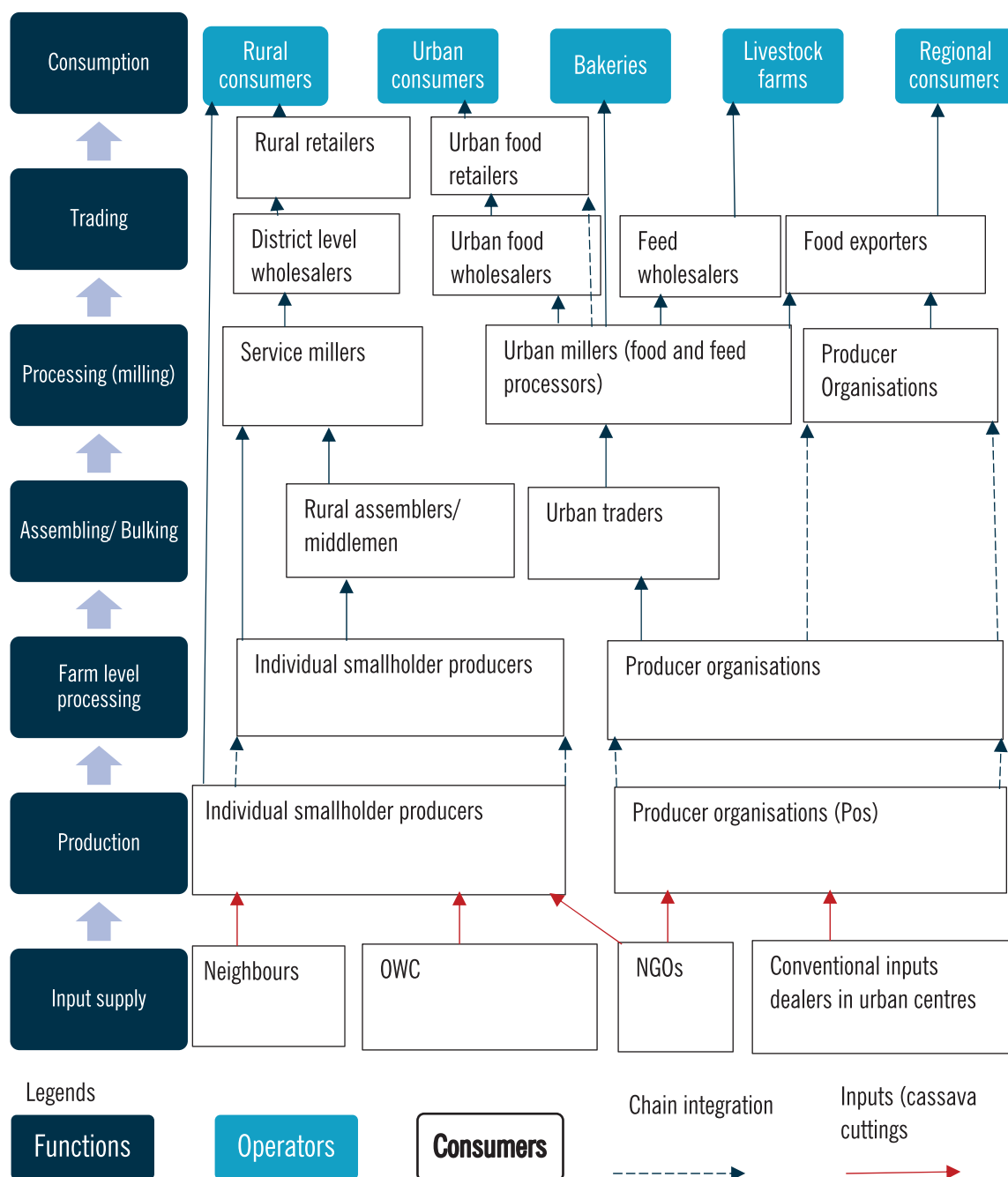
4.3.4.1 The CVC in Uganda compared to the BFM in Nigeria

Input supply in the CVC of Uganda

As indicated in Figure 31, the structure of CVC in Uganda is complex, with many actors trying to earn profit from the same commodity before it reaches the final consumer. Due to many actors along the value chain, farmers receive a farm-gate price, while middle traders earn a relatively higher margin. This is a disincentive to farmers who spend a lot of time and inputs for production. Contrary to the CVC in Uganda, farmers in the Nigerian BFM supply directly to the processors and receive a relatively higher price (Table 5).

Given the current structure of CVC, the BFM is only feasible in Uganda if adopted with modification in the structure and land use arrangements. It is therefore, recommended that Government brings together key stakeholders in the CVC

Figure 31: Core processes of the cassava value chain in Uganda



Source: Kilimo Trust, (2012). - with adjustment where OWC is included replacing NAADS.

and support them to reorganise and build linkages in CVC in Uganda with the main aim of making more the value chain more efficient. Additionally, MAAIF needs to work on the law that can establish legally enforceable contractual arrangements between processors and farmers within CVC in Uganda. This will eliminate middle traders and

motivate farmers to produce more cassava.-

Producers

In Nigeria's BFM, production is done by individual farmers in block farms, while in the CVC in Uganda, producer organisations and farmers are engaged in production.

Table 5: CVC in Uganda compared to Nigeria's BFM

Key aspects	Nigeria's BFM	CVC in Uganda
Structure	Simple as farmers have direct interaction with service provider, processor, the commercial bank	Complex with several actors positioned along the value chain between farmers and processors
Scale of production	Large scale processing/value addition to cassava	Small scale processing/value addition to cassava
Characteristics of processors	Processors have good expertise and mechanisms to provide technical service and agricultural inputs to farmers.	Processors focus on adding value to cassava, but no technical services and inputs are provided to farmers.
Farmers' characteristics	Neighbouring farmers are organised into block farms. Farmers do not have control over the land used.	Farmers operate in fragmented land, which they own and control
Access to finance	Farmers have access to finance through an operating agreement involving the processor, local commercial bank and the service provider.	Cassava farmers, do not have access to finance. Financial institutions do not consider cassava a cash crop. Even processors and other service providers do not support or finance cassava farmers
Risk mitigation	A commercial bank is used as an intermediary, a DFI on-lends and provides de-risking products	Farmers who access finance work directly with commercial banks and are exposed to several risks.
Products	Processors produce advanced industrial products like HQCF, native and modified starches, sugar syrups, and industrial and extra neutral alcohol	Processors focus on primary value addition to products like dry cassava pellets, flour, alcohol and others.
Operation of supply chain	Processors have established sustainable and efficient supply chain for cassava through signing contracts with farmers	Processors do not have binding working relations/contracts with farmers. An unreliable supply chain
Land ownership and management	The processor owns and has control over land management	Farmers own land and control its management.
Quality assurance	Processors can guarantee food quality, safety standards or quantities	Processors do not have control over food quality, safety standards or quantities
Contracts	Working contracts are signed indicating obligations of all actors in the block farm model, especially between the processor and farmers	Generally, no binding contracts between the farmers and processors or any other actors in CVC. Legal framework for contract farming weak

Source: Author's compilation

Additionally, in the BFM, farmers supply fresh cassava to processors, while in Uganda, farmers supply fresh cassava and dry pellets to traders and, in some cases, to final consumers. Cassava farmers in Uganda earn a relatively low return from cassava production. The line MDAs for the agriculture sector have an important role in supporting producers to improve efficiency by re-

organising farmers groups into blocks, building their capacity and linking them to processors and sources of finance. MAAIF should formulate policies that will protect producers from exploitation by middle traders in the CVC.

Agro-processors

Uganda's CVC has two levels of processing: the farm level

processing with dry pellets being the main product, and secondary value addition, mainly milling to flour. While in the BFM, processors receive fresh cassava and take it through several processes that add value to cassava products for industrial use. It is therefore recommended that MAAIF, working with CVC stakeholders, identifies how processing of cassava at both farm and mill levels can be improved. This could be through introduction of small machinery and cassava drying sheds that can be managed at farm, group or cooperative level. CVC stakeholders working with Government can identify opportunities for investments in processing cassava into products for industrial use. Government could then allocate funding to strengthen the identified cassava value addition and industrialisation opportunities.

Auxiliary actors

Farmers in the BFM receive support from auxiliary actors, access finance through DFIs working with commercial banks, and technical support from service providers. In Uganda, farmers are neither assured of finance nor of accessing technical services. For financial and technical service providers to sustainably serve the typical Ugandan farmer and other small CVC actors, the latter (farmers, CVC actors) must be organised into numbers that make it feasible for the former (financial and technical service providers) to reach them. They must also provide the information necessary for the providers to assess their needs/applications and provide a service that meets these needs.

MAAIF working closely with the Department for Cooperative Development and interested banks, need to build the capacity of farmers, particularly those in the CVC to form farmer groups/cooperatives, encourage them to farm in blocks and to bulk their produce early enough to ensure quality product is processed out of fresh cassava and either delivered to consumer markets or to industries. Additionally, MoFPED should be responsible for ensuring that links are formed between Government-owned DFIs and financing programmes (ACF, UDBL, Postbank, MSCL, insurance among others.) and CVC actors, so that

financing products suited to financing CVCs are offered.

MAAIF's other role, would be to provide gross margin analyses of the CVC in different locations/agricultural zones as evidence to banks/financiers and investors that cassava is a viable and bankable cash crop. Overall, the relevant MDAs, particularly in the ministries responsible for finance, agriculture, trade, industry and cooperatives need to work out a collaboration mechanism to strengthen coordination between them and with CVC private sector entities. This collaboration would support value chain development and linking of producers, processors and financing institutions (in general), and the delivery of agricultural finance to value chain actors, in particular. MoFPED as the home of agricultural finance should include a collaboration mechanism in the agricultural finance policy/strategy and spearhead the operationalisation of a coordinated approach to agricultural finance development in Uganda.

4.3.5 Lessons for Uganda from Nigeria's Block Farm Model

The BFM aims to establish sustainable and efficient supply chain for cassava. Nigeria's model is based on strong processor control of the CVC. The processor owns and controls land management but also guarantees quality, safety standards and quantities within the CVC.

The block farm model can be modified to fit Uganda's CVC. This requires; i) identifying a simple and direct mode of interaction between CVC actors, service providers, processors, and banks; ii) organising farmers into blocks to ensure bulking and quality control; iii) signing working contracts indicating obligations of all actors in the model especially the processor and farmers as processor takes control of the land under cassava production; iv) executing an operating agreement involving the processor, local commercial bank and the service provider; v) providing technical (agronomic and agribusiness) service as well as agricultural inputs; vi) recruiting a commercial bank as an intermediary and a development bank to wholesale

credit and to de-risk investments; vii) enrolling processors engaged in the production of advanced industrial products (high-quality cassava flour, native and modified starches, sugar syrups, and industrial and extra neutral alcohol).

However, the adoption needs to be looked at two scales; large and small scale, with the latter representing cassava farming on small fragmented pieces of land. For large scale, potential investors interested in adopting the BFM model in Uganda need to acquire sufficient land dedicated to cassava production. For example, Abim and Kapelebyong districts still have vast land which can be allocated to cassava production. The land should be suitable for mechanised farming, which can be leased and converted into blocks. After acquiring the land, the processor (investor) can establish blocks and develop contractual working relationships with farmers and other actors in the value chain. Neighbouring farmers can also lease land to the processor. It is however recommended that the original land owners agree to prioritise participating in the production of cassava in the block farms. This will ensure that the original land owners continue to earn from that resource as the processors progress with their business.

For small scale cassava farming, more needs to be done to adopt the model. This is because of the number of individuals and small farms that must be brought together to achieve a sustainable and efficient cassava supply chain. Instead of dealing with one large processor who takes charge of production and processing, many small operators are in charge of production, and in many cases the processing as well.

The additional challenges that must therefore be addressed for Uganda to adopt the model in a smallholder scenario are; i) farmers and farms have to be organised into cooperatives and blocks respectively; ii) negotiating and signing contracts between the cooperative and processor on how to share control over land management and how to jointly guarantee cassava quality, safety standards and quantities; iv) working out and executing an operating agreement involving the cooperative, the processor, local

commercial bank and service providers (four parties instead of the three in the Nigerian model).

Therefore, the adoption of the BFM in Uganda requires buy-in at policy level since it involves integrating the activities of a number of Government ministries.⁴ MoFPED as the central player in Uganda's agricultural finance arena (i.e. the home of agricultural finance) needs to engage MAAIF and CVC actors on how best to design and plan for improved financing of the CVC. As discussed earlier, the BFM requires coordination of many stakeholders, and in Uganda's case, spread across many ministries/sectors. These include; processors (industry, trade), farmers (cooperatives, agriculture), service providers (community development, agriculture, cooperatives, trade and commodity organisations, farmer cooperatives and other private sector service providers), development finance institution (UDC, UDBL, ACF, MSCL,); and banking institutions (Postbank, Pride Microfinance, DFCU and others).

4.3.6 Conclusion and emerging policy options

Overall, there is potential for improved financing of the CVC in Uganda if its financing drivers are strengthened. The IDH block farming model in Nigeria has successfully resolved the problem in financing and improving efficiency in the cassava supply chain. Key aspect for this success is the strong coordination of all the CVC actors; processors; service providers; development finance institution; banking institutions; and farmers.

For Uganda therefore, the BFM could take a two-pronged approach. Large scale cassava production and processing could be done using the Nigeria BFM model where processors acquire large parcels, lease more land from neighbouring farms, establish blocks, control land management, and the quality safety standards and quantities of cassava produced. The second option is a modified BFM where, with government support, smallholder cassava farmers are aggregated into

cooperatives which then constitute their individual farms into a block farm. The cooperatives, on behalf of the CVC actors, and with support from MoFPED, MAAIF and willing processors, build working relationships with service providers, DFIs, and banking institutions. Since service provision is critical for success, the smallholder BFM could either be supported by a processor-owned service provider or the processor and farmer cooperative could share the different aspects of service provision e.g. agronomy by the cooperative, postharvest handling and link to banks by the processor.

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Endnotes

- 2 Nakasongola, Nakaseke, Kyankwanzi, Kiboga, Mubende, Luweero, Kayunga and Mityana
- 3 IDH, The Sustainable Trade Initiative is an organisation (Foundation) that works with businesses, financiers, governments and civil society to realise sustainable trade in global value chains.
- 4 MAAIF and MoFPED



CHAPTER FINANCING COVID-19 RESPONSE AND RESILIENCE BUILDING

5.1 BUILDING RESILIENCE AGAINST FUTURE GLUT AND PRICE CRUSH OF AGRICULTURAL COMMODITIES: THE CASE FOR A NATIONAL FOOD RESERVE

Tom K. Mugisa¹



Picture source: NFRA, Tanzania, April 2021.

5.1.2 Background

In 2020, about one in five people living in Africa faced hunger², which is more than double the proportion of hungry people in any other region in the world (Lilliston and Ronallo, 2012). Despite their food security status, most African countries hold only modest food reserves, if at all (*ibid*). The few countries that have food reserves have enhanced them to better respond to the COVID-19 pandemic. Although Uganda has generally been food secure, recent calamities—especially the recurrent droughts, floods, and the COVID-19 pandemic—have resulted in a significant proportion of the population being unable to realise their daily human right to adequate food. This is compounded by inadequate social protection and poor households unable to access nutritious food—especially when prices rise during recurrent crop failures and shocks (Daily Monitor, 2021). And yet, most of the

country's farming households receive very low prices for their produce during peak production (UBoS, 2020). This is partly due to limited access to tools for risk management such as crop insurance or quality storage to extend the shelf life of their grain.

According to FEWSNET (2021), 45 percent of the households already had inadequate food consumption with poor and borderline Food Consumption Scores.³ Since March 2021, the situation progressively worsened, and has been exacerbated by the following; (i) reduction in agricultural labour income due to irregular rainfall and (ii) the negative impacts of the restrictions due to the COVID-19 pandemic. According to the food systems report, approximately 12 percent of the population (equivalent to 5.4 million Ugandans) will, in 2021, suffer from chronic hunger and require food assistance. And most, if not all the chronically hungry people, lack adequate family level food reserves. It is estimated that the annual total social and economic loss associated with under-nutrition in

¹ Tom K. Mugisa, is an independent consultant (tomugisa@gmail.com).

Uganda is UGX 1.9 trillion (USD 899 million), equivalent to 5.7 percent of GDP (NPA, 2009).

To respond to the food insecurity caused by the pandemic and other causes, Government has had to decide whether to give vulnerable people, food in-kind or in cash. This is understandable given the fact that Government has no access to physical food stocks. During the first COVID-19 wave in 2020, Government's direct physical food distribution to the vulnerable population was characterised by food delays, limited coverage, poor quality or safety (aflatoxin), inflated prices, logistical challenges and high cost of distribution.

The 1995 constitution calls for the establishment of national food reserves; however, Uganda has up to now, not done so. The few available grain reserves (e.g. those operated by Uganda Grain Council and those established with support from World Food Programme (WFP) in specific districts) are small. They are mostly grain silos owned by private entities. In 2018, Parliament also adopted a motion⁴ urging Government to establish national food reserves. This article highlights the need for strategic intervention to address the country's recurrent food insecurity challenge – a 'constant companion' of Uganda's vulnerable population⁵.

5.1.3 Gaps in the policy, legal and institutional frameworks

Although Uganda's national policy framework provides for the establishment of National Strategic Food Reserves (NSFR), and the country is also a signatory to several regional (CAADP, Malabo⁶) and international agreements that include the 2015 Sustainable Development Goals (SDG),⁷ there are still key legal and institutional gaps that must be addressed to have a complete or an enabling framework in place. Apart from the 1995 Constitution and the National Food and Nutrition Policy (2003), specific laws and institutions must be put in place to establish and manage the NSFR, as illustrated below.

(i) **The National Constitution of the Republic of Uganda (1995):** recognises that all human beings have a right to adequate food.⁸ Consequently, the National Objectives and Directive Principles of State Policy, paragraph XXII on food security and nutrition, states that 'the state shall take appropriate steps to (a) encourage people to grow and store adequate food, (b) establish national food reserves, and (c) promote proper nutrition through mass education and other means to build a healthy state. However, establishment of the NSFR has only been proposed during the fiscal years 2020/21 to 2024/25(MAAIF, 2020).

(ii) **The Uganda National Food and Nutrition Policy (2003):** This Policy is premised on three guiding principles, namely that food; (a) should be treated as a national strategic resource; (b) is a basic human right for all citizens of Uganda; (c) must be part and parcel of the national development policy. Section 3.3 on storage and marketing provides for (i) promotion of household food reserves; (ii) establishment and maintenance of minimum strategic food reserves at district and national levels; and (iii) construction of appropriate food storage facilities at all levels. However, part of the policy is yet to be fully operationalised.

(iii) **The Uganda National Food and Nutrition Law**
The national legal framework also provides for the establishment of a National Strategic Food Reserve (NSFR). The draft food and nutrition bill (2009) clearly states that: (i) in accordance with the Constitution (1995), there shall be a national food reserve to be administered in a manner proposed by the Food and Nutrition Council and approved by the Minister; and (ii) the purpose of the national food reserve⁹ shall be to (a) ensure a reliable supply of food for the country; (b) meet local shortfalls in the supply of food; (c) meet any other food emergencies caused by drought or flood, or by any other natural disaster as may be determined, and (d) correct problems of food supply in the country.

The above proposed law (draft Bill 2009) is yet to be enacted by Parliament. Apart from enacting the draft bill referred to above, there is also a need for a specific law on food reserves, namely a; - “Uganda Food Reserve Act (FRA).” The purpose of the FRA would, among others, provide for; (a) the legal existence of the country’s food reserve; (b) a food reserve agency; (c) its management; (d) operations; and (e) funding.

Besides the above gaps in the national-level legal and institutional framework, the East African Community (EAC) Food and Nutrition Security Strategy (2019-2023) also provides for member states to establish reserves at national and regional levels—a strategy similar to the one adopted by Economic Commission for West African States (ECOWAS).

5.1.4 The national food reserve: conduct, structure, and operation

5.1.4.1 Conduct

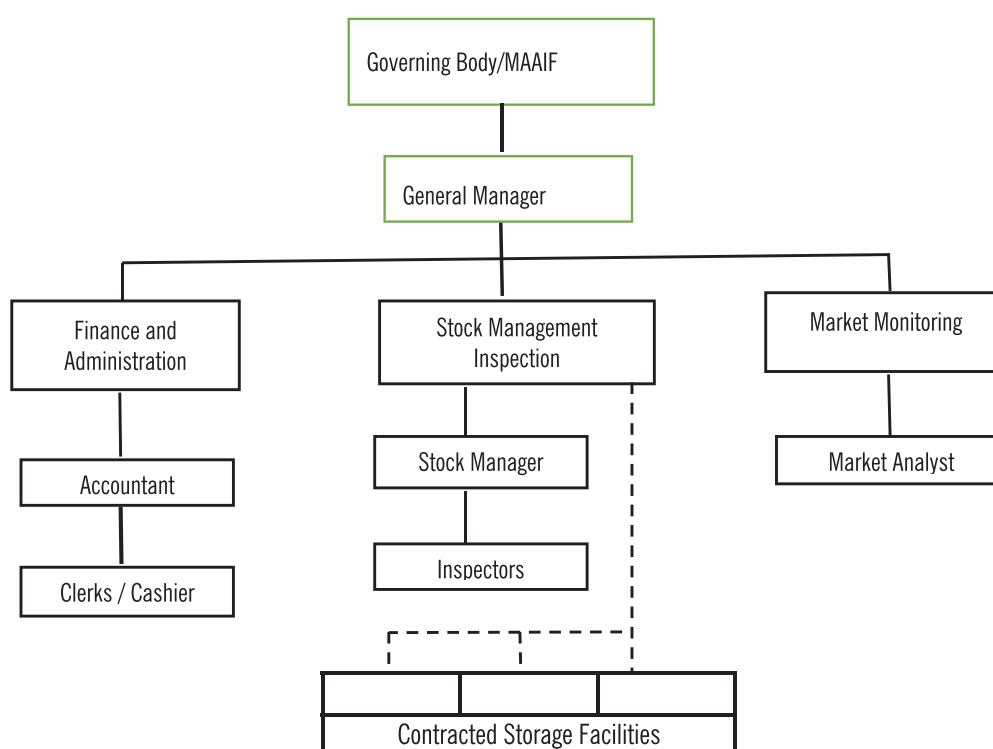
The overall purpose of a NSFR is *‘timely response to urgent needs resulting from a calamity-induced¹⁰ food shortage to save lives of the vulnerable population*. The emergency food reserves should be sufficient to cover at least three months. Apart from serving as an emergency ‘insurance’ against food shortfalls and fulfilling the right to food, the reserve would also discourage migration in search of food (NEPAD, 2004). The reserve could also be used to enhance other national safety nets programmes based on cash transfers and in-kind contributions, including school feeding, food-for-work and skilling. A specific Food Reserve Agency (RFA) must be established with well-trained and facilitated human resource; and the reserve stock must be managed with maximum integrity at all levels. All operations and accounting procedures must be transparent and without any forms of corruption as reserves are about quality human food that must remain nutritious and safe to eat throughout the management cycle.

Regarding institutional arrangements, the MAAIF would be the lead institution (Figure 32). However, given the multi-sectoral nature of food and nutrition, other MDAs must be involved under an effective multi-sectoral coordination platform, preferably under the Office of the Prime Minister (OPM), to holistically address related matters such as, early warning systems, post-disaster recovery and resilience building.

The MDAs include trade, industry and cooperatives, gender, education, health, energy, finance ministries and their relevant agencies, local governments, the private sector, civil society and development partners such as WFP, FAO, UNICEF and UN Women. The OPM already has active departments that provide for multi-sectoral food and nutrition issues in the country, bringing together various institutions involved in disaster response and management.

5.1.4.2 Structure

The ideal structure of the NSFR should have a capable governing board that reports to the line Minister and a competent management team headed by an executive general manager or director (Figure 32). The management team can include three distinct departments to handle, namely; (i) stock (in-kind and cash) management and inspection; (ii) marketing, monitoring, evaluation and learning; and (iii) finance and administration. Additional units/departments may be considered to handle audit and human resources. The core physical stock can be stored in a relatively smaller or manageable Government-owned warehouse plus several warehouses contracted from the private sector directly and virtually through the commodity exchange.

Figure 32: The institutional structure of a typical grain reserve

Source: FAO, 1997. (Strategic Grain Reserves: Guidelines for their establishment, management and operation. Agricultural Services Bulletin 126.)

5.1.4.3 Operation

Typical food reserve operations include; grain procurement, stocking, distribution, and replenishment. There are associated costs at every level of operation, such as administrative costs of the agency, storage, grain handling, logistics and maintenance costs. From the onset, it is important to focus on cost-efficient operations such as involving related government agencies and departments to handle some of the responsibilities. Such duties include monitoring market conditions and engaging the private sector to maintain and operate some or all of the storage facilities. It is therefore crucial to develop and use standard operational procedures (SOPs) for the reserve, particularly where both Government and the private sector are involved. These should be in a reserve-specific operations manual, developed through a consultative process, which provides a comprehensive set of procedures to be followed to operate and manage the reserve. The manual would, for example, describe

terms and procedures for (i) procurement of grain for the reserve; (ii) physical storage of the grain; (iii) destocking or release and recycling of the grain from the reserve; (iv) quality control; (v) monitoring and evaluation; and (vi) capitalisation of the food reserve operations.

Other procedures include administrative, financial management (budget and audits) and authorisations for various actions such as pest control, disposal of discarded or damaged grain. There is also a need to insure the reserve against risks such as fire, theft, damage to stocks and infrastructure, and bad weather.

Agricultural commodities to prioritise for the national food reserve:

The key staple foods of national importance to be considered for the national strategic food reserve include: maize, beans, millet, sorghum and rice. Maize is produced mainly for commercial purposes by more than two million households and is the country's seventh most important export commodity (MoFPED, 2020). In 2020,

maize exports earned USD 97.8 million (*ibid*). It is also the raw material for agro-industries – animal feeds and flour. Beans are the most popular pulse and provide the much-needed proteins in the diets of most households in the country. In 2019, bean exports earned the country USD 62.7 million (*ibid*). Unlike maize and beans, millet and sorghum have a better shelf life and can be stored for long periods. Both are traditional foods in the country. Sorghum is also used for brewing alcohol. Rice is the most expensive grain as its supply from domestic production and imports cannot meet local demand. It is an emerging commercial food crop, popular among children and youth, and is widely eaten at most ceremonies, especially in the urban areas all over the country.

5.1.4.3 The role of non-state actors

Non-state actors such as civil society, private entities and development partners can play an important role in supporting the national food reserve system. They can undertake the following activities in line with their specific mandates; (i) policy advocacy for equitable and inclusive services at all levels; (ii) resource mobilisation; (iii) service provision; (iv) supply of quality goods and services; (v) support of post-harvest handling, storage and value addition infrastructure and equipment; (vi) providing post-harvest services such as transport, storage and marketing; (vii) assisting farmers in their collective actions – such as bulking and forming groups; (viii) skilling beneficiaries and service providers; (ix) assisting the vulnerable; and (x) providing technical assistance. The National Strategic Food Reserve Agency (NSFRA) will have to engage the respective non-state actors to enhance the timely provision of adequate and nutritious food to the vulnerable population.

Under Public-Private-Partnerships framework, grain storage facilities owned and managed by the private sector can be contracted to store government food for use in emergencies. The commodity exchange under the MTIC is an additional facility that can be used to ensure additional food for emergencies. These arrangements

would supplement the existing government food storage facility under the OPM.

5.1.5 Investments and financing the national food reserve

Below are possible financing sources that could be explored to finance a national food reserve.

5.1.5.1 Public financing

There are several possible sources of financing that Government can consider for financing various investments of the national food reserve. The first source of funding for the food reserve is the GoU. There is the Uganda National Contingency Fund, which was established to manage natural disasters and emergencies. Section 26 (i) of the amended Public Finance and Management Act (PFMA) of 2015 provides for the replenishment of the Fund equivalent to 0.5 percent of the appropriated annual budget of the previous financial year. It should be ring-fenced, fully-funded and a specific proportion set aside to fund the National Food Reserve. Additionally, Parliament is empowered to make appropriations to support the initial estimated cost of establishment and operations of the Food Reserve Agency to ensure it is fully functional.

5.1.5.2 Private financing

The second possible funding source is from private sector sources, including profits generated from the sale of the reserve food and the sale of publications by the Food Reserve Agency. This is an essential funding source that, the reserving agency must grow to reduce over-dependence on Government and donors. Other private funding sources include (i) Public-Private Partnerships, where an investor invests in grain storage and maintenance, and (ii) soft loans from domestic and external sources. The private sector can also be contracted to store and maintain the grain at an agreed fee. Civil society organisations, including faith-based and cultural organisations, can provide useful limited or no-cost-to-the-reserve services

such as community mobilisation and sensitisation.

However, the most sustainable food reserve system could actually lie within the communities. Government should explore how to embed the food reserves issue into the Parish Development Model. The physical reserves may not be based at parish level as that might have diseconomies of scale. A number of parishes could be aggregated and the reserves could be placed at the cooperative union level. The union would then link to the national Food Reserve Agency, and the latter would be responsible for building the capacity of the union to manage the reserves. There is also the option of the Agency partnering with the union in establishing and managing the reserves.

5.1.5.3 Donor financing

The third funding source includes grants and donations from development partners such as the World Food Programme (WFP) and the Food and Agriculture Organisation of the United Nations (FAO). Development partners can share international experience, provide technical assistance and aid both in-kind and financial resources. However, reliance on donors by the sector may not be the best option for establishing responsive and sustainable national food reserves.

5.1.6 Financing national grain reserves: Case studies and lesson for Uganda

Uganda could pick lessons from several countries in the East African region that have national food reserves: Two case countries, Tanzania and Ethiopia, are hereafter, briefly highlighted.

Ethiopia

Ethiopia has one of the most effective, successful, and oldest emergency food reserve and price stabilisation systems in Africa since the 1950s. Maintaining and sustaining a grain reserve for such a long time is indeed part of a bold policy, unrelenting will, enduring Government emergency response and price stabilisation strategy to

guarantee food security for vulnerable populations. The reserve is a relatively independent institution under the Ministry of Agriculture. Despite having a government marketing board, the Government established a strategic grain reserve in the early 1980s. For almost 50 years and despite the 1991 market liberalisation, the reserve has, since 1972, been maintained under the NSFRA. It enjoys guaranteed funding from Government and partners. The agency holds a revolving stock of over 460,000 MT, mainly maize, sorghum and wheat, which can feed seven million people (400 grams per person per day) over six months. The actual stock is adjusted from time to time in response to need and evolving storage capacity.

Ethiopia has several lessons for Uganda. A few are highlighted below. A **stable and hence predictable enabling policy environment** is important for a national strategic food reserve. **Efficient management** of the food reserve stock is also critical to Ethiopia's success, and has resulted in; (i) reduced cost of operations; (ii) ensured the quality of food; and (iii) minimised market distortions. In addition, the country **increased and has sustained investment in safety nets, food and agriculture** to end hunger and reduce poverty. In 2000, Ethiopia was the second poorest country in the world. However, due to sustained investments in a productive safety net programme¹¹ (PSNP), food and agriculture, the economy grew and mass poverty fell. By 2018, Ethiopia was, according to World Bank, the third-fastest growing country in the world based on GDP per capita (Francesca, 2020).

The third lesson, is that, a food reserve system can help to reduce price fluctuations of key grains and legumes. In essence, the reserve is a price stabilisation tool that is critical for mitigating price risk. And when prices are stable, price risks are controlled, the entrepreneur can project more accurately, the lender can do a fairer appraisal, which are all basic tenets for improving access to financial services. What is usually missing is that, the stabilisation effect that reserves can provide is hardly documented. Policymakers in the financial and agricultural

sectors need to provide empirical basis for using reserves as a stabilisation tool.

Tanzania

Tanzania's National Food Reserve Agency (TNFRA) is a successful public institution established as an executive agency under the ministry responsible for agriculture. It was established in 2008, taking over from the former National Food Reserve Organ of 1976. The TNFRA guarantees national food security through an efficient and cost-effective system consisting of three functions: (i) procuring, reserving and releasing food stocks to address disaster; (ii) recycling and releasing food stocks in the market to stabilise food supply; and (iii) marketing food commodities for revenue generation. The reserve has an estimated 500,000 MT of guaranteed quality grain.

There are several lessons for Uganda. **First is the fact that the public sector can successfully establish and manage an efficient and effective national food reserve.** This means that governments are capable of addressing challenges of providing adequate nutritious food to the vulnerable population across the country. **Second, TNFRA guarantees and delivers quality grain to consumers from within and outside the country.** This can help stabilise food availability and prices. Another **lesson is that the reserve provides a market-of-last-resort to farmers during the grain procurement season.** This is an important aspects for farmers who may have borrowed but are lacking a market for their produce. They are at least assured of a buyer though the price may not be as high as that offered by the private sector. Finally, reserves pricing strategy operations should be equated to a central bank's intervention in the forex market. Just like how foreign exchange rates cannot be fully left to the vagaries of the forex market, similarly, commodity prices, particularly for grains and legumes, need to be protected from drastic falls and rises because of the damage they inflict on agricultural productivity and incomes.

5.1.7 Conclusion and emerging policy options

Given the uncertainty presented by climate change and pandemics like COVID-19, and noting the past challenges and socio-economic implications of lockdowns, Government must commit to establishing a NSFR. Government's plan is to set up the NSFR during the period 2019/20 to 2024/25. NSFR establishment is long overdue as it was provided for as far back as 1995 (in the Constitution) as well as in the 2003 National Food and Nutrition Policy.

In light of the above, the following urgent actions are needed.

- i **Expedite the establishment of a national strategic food reserve:** whose purpose is to contribute to; (i) ensuring reliable supply of food; (ii) meeting shortfalls in the local supply of food; (iii) addressing food emergencies as may be determined, (iv) correcting problems of food distribution; and (v) providing a price stabilisation mechanism as needed. In the meantime, Government should continue to fulfil the '*right to food*' commitment for the vulnerable population until the reserve is fully operational. In addition, Government, through its agencies responsible for agriculture, industry, marketing, cooperatives and finance, should prioritise establishment of food reserves at the household/parish levels, this would reduce post-harvest losses and institute close monitoring of post-harvest losses at parish or other suitable administrative level.
- ii **Expedite the enactment of a specific food reserve's law, structure and regulations:** This calls for enactment of the **Uganda national strategic food reserve Act** to provide for the establishment of the food reserve agency, reserve, management, information system, standards, stakeholder registers and related matters.
- iii **The Ministries responsible for agriculture,**

industry, cooperatives, trade and finance should ensure the right storage infrastructure is where it is most needed, and public-private partnerships are concluded with clear roles, responsibilities, performance standards and service rewards. Grain storage facilities owned and managed by the private sector, which meet the government standards, can be contracted to store government food for use in emergencies following the national public-private partnership framework.

- iv **Provide and secure adequate funding for the food reserve's operations: The ministry responsible for finance and parliament** should ensure adequate funds in the country's National Contingency Fund, which should also be ring-fenced and fully funded. In addition, the Parliament of Uganda should make adequate appropriations to the National Food Reserve Agency (FRA) once it is established.

National Food and Nutrition Institutions: Apart from the existing line ministries and agencies related to food and nutrition,¹² there is a need to formally establish a National Food and Nutrition Council (FNC) indicated in the Uganda Food and Nutrition Policy, 2003. The purpose of the FNC will be, among others, to propose the manner of administering the national food reserve. There is also a need to harmonise the FNC with the National Nutrition Coordination Unit/Departments under MAAIF and that of the Office of the Prime Minister. This would ensure that Government efforts are well-coordinated to lead to guaranteed access to adequate nutritious food for all vulnerable citizens of Uganda at all times, irrespective of their age, gender and geographical location. In addition, to the FNC, and enactment of a law on the food reserve, there would be a need to recruit competent human resource for the effective and efficient management of Uganda's National Food Reserve.

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Endnotes

- 2 <https://www.africanews.com/2021/07/14/with-one-in-five-africans-facing-hunger-in-2020-deputy-secretary-general-calls-for-transforming-food-systems-nature-based-solutions-at-regional-dialogue/>
- 3 Indicator to track household food security across time; poor (0-28), borderline (28.5-42), acceptable (>42).
- 4 Motion adopted on July 31, 2018. It was moved by Hon Kenneth Lubogo, NRM Bulamogi County, Kaliro District.
- 5 “Vulnerable” includes: individuals and households affected by the COVID-19 pandemic, other chronic illnesses and loss of livelihoods, child-headed households, the unemployed, the elderly, physically and mentally disabled, at-risk children, girls, boys and some women, some religious and ethnic minorities.
- 6 Malabo declaration (2014): reducing child malnutrition; stunting to 10% and wasting to 5% by 2025.
- 7 SDG2 seeks to end hunger and all forms of malnutrition by ensuring access to food by all people by 2030.
- 8 The human right to food is realised when every man, woman, child alone or in community with others, have physical and economic access at all times to adequate food or means for its procurement.
- 9 The food reserve provides a first line of defence for coping with food emergencies – when there is an acute and widespread food shortage, extensive suffering and dislocation in the life of the community on an exceptional scale, which cannot be solved through normal supplies.
- 10 Calamity: adverse socio-economic, policy and biophysical factors such as extreme weather and price shocks.
- 11 PSNP (since 2005) - A combination of food and cash is provided to vulnerable persons, often in return for labour in public works such as soil conservation, reforestation, water for production and community use.
- 12 Ministries responsible for agriculture, animal industry, fisheries, trade, industry, education and gender.

5.2 EXTENDING INPUT SUBSIDIES TO BOOST COVID-19 RESILIENCE: A NOTE ON AGRIBUSINESS INITIATIVE'S COVID-19 SUBSIDY RESPONSE PLAN.

Caroline Wamono¹



5.2.1 Background

COVID-19 was officially declared a pandemic in March 2020, and since then, the emergency evolved into global public health and economic crisis that has cost the global economy of USD 90 trillion (CRS, 2021). COVID-19 triggered unprecedented restrictions not only on the movement of people but also on a range of economic activities and the declaration of national emergencies in most countries. To contain its spread, governments across the globe undertook decisions on a country-by-country basis that eventually disrupted the movement of both people and goods. As such, global manufacturing declined, as businesses with international supply chains operated intermittently. As a result, delayed shipments and production schedules created financial problems for companies with heavy debts worldwide (FAO, 2020a).

Uganda was under a quasi-complete lockdown from

21st March until the end of May 2020. There was a ban on international commercial air travel and land border crossings until the end of September 2020, except for the transportation of necessities such as groceries, industrial inputs, medicines, food and food-related items. (FAO, 2020b). This disrupted the supply chain of agro-inputs, especially fertilisers and chemicals whose raw materials are solely all imported into the country. The total chemical imported declined from USD 47.1 million in 2019 to USD 32.7 Million in 2020 (BoU, 2021).

In response to these challenges, the Agribusiness initiative (aBi) undertook a COVID-19 response plan with the overall objective of building the resilience of about 40,000 smallholder farmers in three value chains, namely cereals, pulses and oilseed. This article highlights the aBi agro-input Subsidy Response Plan and the key challenges that impede a stable supply of inputs amidst the crisis.

¹ Intervention Manager – Agribusiness, aBi Development Limited (Caroline.Wamono@abi.co.ug)

5.2.2 Trends in trade and consumption of agricultural inputs in Uganda

According to UBoS (2018), about 23 percent and 24 percent of the agriculture households used improved seed and fertiliser, respectively, during the agricultural year 2018. Of these, about 77 percent used organic fertilisers, and 32 percent used inorganic fertilisers. The survey also reported that 21.1 percent of these households used agro-chemicals (herbicide, insecticide, fungicide and rodenticide), with insecticides being the most used (66%), followed by herbicides (38%) and fungicides (16%), while almost none use rodenticides.

Formal and informal systems characterise and co-exist in Uganda's seed sub-sector. The formal system includes seed imports and exports for domestic and regional seed markets. Major players in the formal system are public institutions (Government, international and national research); the private sector including, seed companies, farmers and farmer organisations; Non-Government Organisations (NGOs); and development partners. All are linked together under a National Seed System (NSS). Over 35 registered seed companies produce an estimated 18,000 MT of the seed, of which about 70 percent is maize seed.

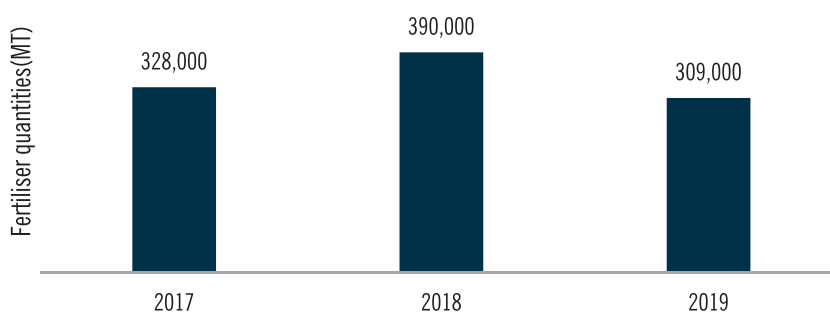
On the other hand, about 85 percent of seed planted is obtained from informal sources, mainly farm-saved seed, local markets, and social networks. Because of this, the

seed that farmers use is of questionable quality. Due to market, weather, and institutional buying variability, seed supplies remain highly volatile (GoU, 2018).

The fertiliser industry, on the other hand, is private sector-led and liberalised. Uganda currently does not produce inorganic fertilisers, but all is imported mainly from Kenya, followed by China. Large scale farms, especially commercial tea, sugar, tobacco, flower and rice growers, account for 30 percent of the import market share. Nitrogen, Phosphorous and Potassium (NPK) is the most imported fertiliser accounting for 60 percent of total fertiliser imports. However, 98.7 percent of this fertiliser is of unknown grade i.e. of non-confirmed quality (FUBU, 2015). The exact fertiliser use quantities in Uganda cannot be accurately deduced from the official data from the URA and UBoS due to the porous border trade with Kenya. However, available data estimates 309,000 MT of fertilisers were imported into the country in 2019 (Figure 33).

In 2013, 174,288 hectares of cropped area in Uganda were fertilised, with sugarcane recording 29 percent followed by bananas at 25 percent. The major underlying causes of low agriculture input use in Uganda are high transaction costs of input marketing, limited breeder and foundation seeds availability, low participation of private traders in the input distribution system, and the high cost of financial services. The high transaction cost of input trade is due to the low volume of purchases, high transport

Figure 33: Trend in Uganda's fertiliser imports (2017 to 2019)



Source: Authors construct based on data obtained from the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). These are total figures authorised for importation in the given years, indicative of estimates of actual imports.

costs and high interest rates on borrowed funds.

The agricultural input market is primarily characterised by low-quality, low-trust, and low-adoption behaviour (*ibid*). In this regard, reputable district level agro-dealers as well as chemical and seed suppliers have had to take extraordinary and expensive measures to protect their reputations and brands from being undermined by counterfeits. Input buyers increasingly source directly from suppliers in Kampala rather than risk buying counterfeits from a third-party resellers. This practice adds to the already-high transaction costs and undermines orderly cooperation between value chain actors in getting quality agricultural inputs to smallholder farmers (USAID, 2018).

On the other hand, Government and its ministries in this case, the MAAIF, MITC and Ministry of Local Government (MoLG) have been ineffective in regulating

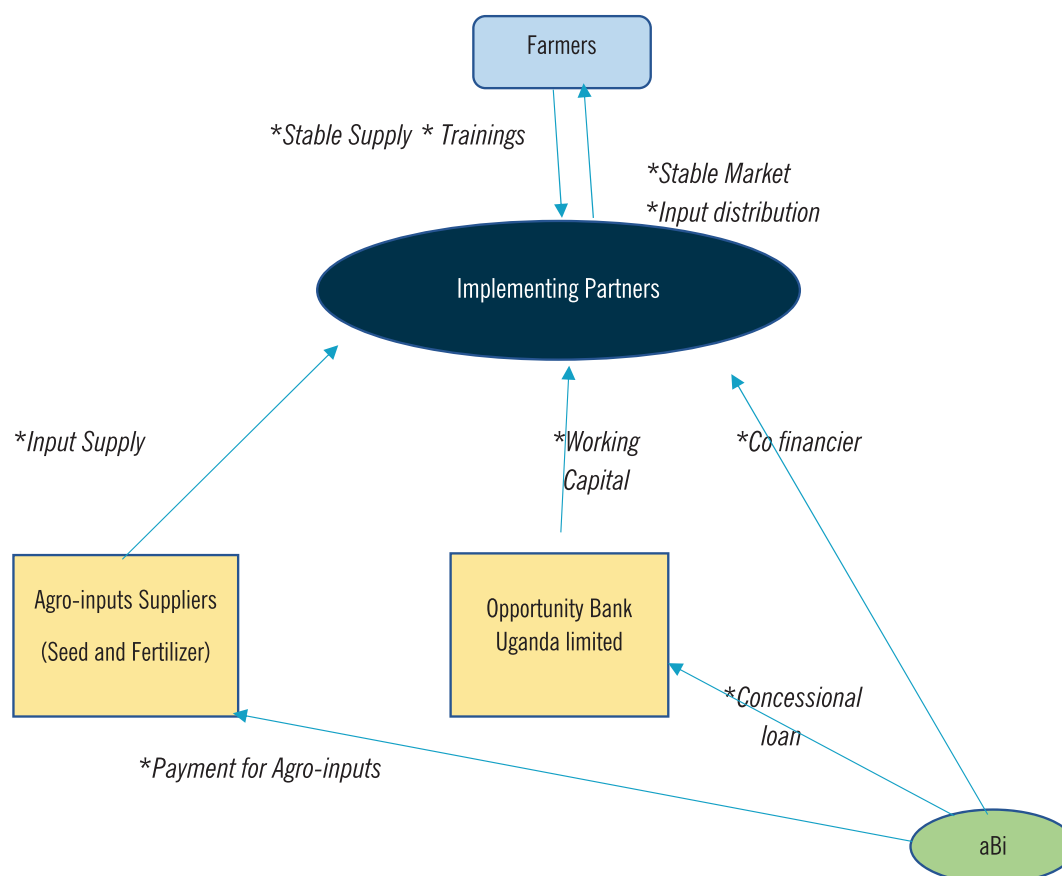
the agro-inputs industry. For instance, Government's own licensing and standards regimes (e.g. e-verification and seed certification) are weak; and direct government interventions in agricultural inputs supply (e.g. the free distribution of seeds) not only crowds out private sector initiatives but it also at times perpetuates the distribution of low quality inputs (*ibid*).

5.2.3 aBi's COVID-19 response plan: Structure, conduct and operation

5.2.3.1 Structure of the aBi response plan

To safeguard the production, trade and processing of key food staples from shocks of COVID-19, aBi designed an emergency Subsidy Response Plan to strengthen the response and resilience of farmers and agribusinesses (Figure 34). It provided seed and fertilisers to about 40,000

Figure 34: Structure of the aBi's COVID-19 response model



Source: Author's construct

smallholder farmers along three value chains (cereals, pulses and oilseed), producing maize, sorghum, beans, sunflower and soy; intending to generate a total additional income of UGX 36 billion to the participating farmers and UGX 72 billion to the participating agribusiness partners.

The delivery was through an easily understood, ring-fenced programme of direct subsidies. aBi financed the procurement and distribution of seeds and fertilisers to farmers who grow food crops for key strategic aBi agribusiness partners for three seasons starting season 2020B³, at declining subsidy rates, reviewable according to response and progress in economic recovery. In the arrangement, partners were selected by aBi rather than by soliciting proposals. The rapid response, crisis mitigating context and movement difficulties imposed by the COVID-19 pandemic, did not allow for the usual soliciting for proposals, design, development and negotiations, strengthening of partner-systems, and competitive procurement processes. The award was to already-proven business partners, having a clear strategic interest in participating and generating the results aBi was looking for.

Farmers who participated were selected from the already existing Implementing Partner (IP) farmer profiles⁴ and were willing to contribute to the project in the preceding two seasons. On the other hand, the chosen IPs had a history of positive partnership with aBi. This was demonstrated by the following; no outstanding issues raised in audit reports; a good record of activity and output delivery; and

an efficient business model. In addition, selected IPs would have to be prepared to sign agreements guaranteeing to off-take the farmers' production at prices benchmarked to the market and assessed as having the financial strength and credit positions required to participate and trade crops produced. To ensure that IPs could buy-back farmers' produce on time, aBi through a partnership with Opportunity Bank Limited, availed working capital for all qualifying IPs⁵.

Input suppliers were recommended by IPs, based on the following criteria; should have successfully worked with IPs before; offer certified; or quality assured products; good reputation in the market (also with other development agencies); and financial strength and creditworthiness necessary to meet delivery deadlines. However, suppliers could not deliver the required quantities on time, while some fell short of the quality required.

5.2.3.2 Operation of the aBi subsidy response plan

The operation of the Response Plan was a subsidy arrangement whereby in the first season, aBi paid 100 percent for agro-inputs (seeds and fertilisers), advisory services and indirect costs⁶. The full subsidy was expected to attract farmers who would otherwise not appreciate the benefits of using commercial inputs. In the prior seasons for 2021A and 2021B, farmers contributed 20 percent and 40 percent, respectively, as shown in Table 6. The gradual decrease in aBi contribution and increase in direct

Table 6: Farmer contribution to inputs under the aBi's COVID-19 response plan

Season	Contribution (%)		Comment
	aBi	Farmer	
2020B	100	0	Farmer gets free inputs based on his acreage or historical sales through IP
2021A	80	20	Farmer contributes 20% while aBi reduces contribution to 80%
2021B	60	40	Farmer contributes 40%, and aBi further reduces contribution to 60%
2022A	0	100	Farmer fully pays for the inputs needed

Source: aBi Reports

Note: Season 2021A (January -June 2021), Season 2021B (July -December 2021), Season 2022A (January -June 2022)

or indirect farmer contribution ensured that farmers pay closer to the actual value of inputs over the seasons. By season 2022A⁷, it was anticipated that a good proportion of the farmers would be adopters i.e. willing to pay the full costs of inputs.

Under this arrangement, the inputs were delivered to the IP and distributed to the farmers through Local Market Facilitators (LMFs)⁸, who are in charge of four groups each. Different IPs had varying models of collecting farmer contribution, including pre-payments by farmers on placing orders, payment at delivery of inputs and payment at the point of produce buy-back. Given that IPs were expected to make full contributions before inputs were delivered, they contributed in advance to ensure timeliness and then, collected farmer contributions afterwards.

The agro-inputs project theory of change was that when farmers are provided with subsidised agro-inputs, advisory services and market information, they will adopt and expand the use of improved seeds and fertilisers. Participating farmers will increase yield, sales and incomes. The IPs and other buyers will realise increased sales and profitability. Farmers and IPs will become more resilient to COVID-19 pandemic by investing more in mitigation measures, and their survival and growth will be strengthened.

5.2.4 Performance of the aBi subsidy response plan

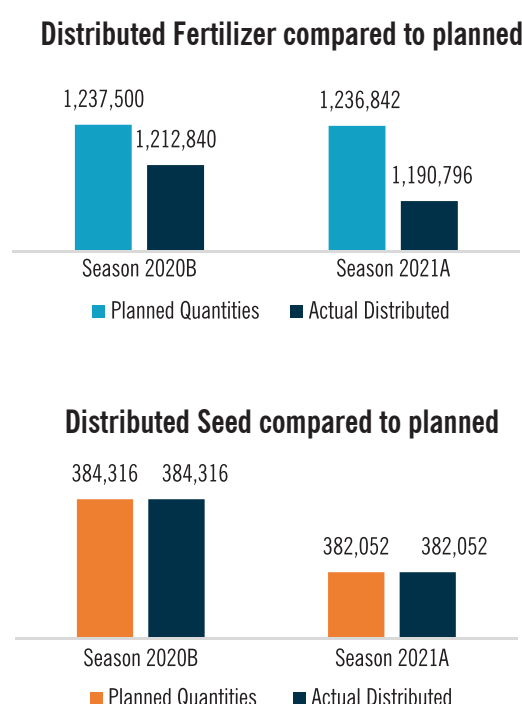
The following performance indicators give a picture of the aBi's response plan;

i) Number of inputs delivered

For Season 2020B, the contracted seed companies delivered the required quantities and on time. However, some of the seeds failed the germination threshold test of 85 percent. The companies had to supply extra seed to make up for the variance from the threshold. On the other hand, fertiliser distribution was generally delayed for all companies as they could not provide the required quantity

of 1,237,500 kgs on time. In addition, there was a deficit of 47,259 kg of fertiliser due to a price increase of about UGX 200/kg above budgeted figure. As a result, 2,747 smallholder farmers missed out on fertiliser. This was because agro-input dealers had inadequate contingency stock levels since they import all the raw materials for blending. As such, any disruptions in the supply chain would cause a crisis. Other reasons for stock-outs included; inadequate capital to buy large amounts of stock or capital investments for adequate storage.

Figure 35: Input distribution



Source: Authors' construction based on information from aBi reports

In the same vein, during season 2021A (Figure 35), seed suppliers struggled to raise the required quantities. The majority of the out-grower seed farmers significantly reduced acreage under cultivation to about 50 percent due to losses made in 2020, partially caused by movement and trade restrictions. With the opening of the borders, expectations were that fertiliser supply would be better than season 2020B. However, the disruptions continued due to the following reasons; lockdowns and restrictions

in countries where production was taking place; increased costs resulting from escalation of production; freight and transportation costs. This raises policy concerns regarding ensuring stable supply chains, and the incentives needed to ensure that players in the input space are cushioned in case of similar calamities.

ii) Farmer enrollment into the subsidy programme

The agro-input response targeted to reach 36,217 beneficiaries per season. However, in season 2020B, 29,417 farmers were reached, with 24,012 receiving both seeds and fertilisers. In season 2021A, a total of 29,311 farmers received both seeds and fertilisers. The number was short of the target as the IPs recommended under the oilseed value chain could not participate, citing the risk of distortion of their existing business model. In their business model, these IPs give seed and fertiliser as an advance to farmers who then pay back at harvest time.

On the other hand, the aBi model was designed so that the inputs in the first season were 100 percent free. However, farmers would increasingly contribute to inputs in the subsequent seasons while aBi's contribution would decline. This way, the idea of free inputs in the IP's model, which was seen to have the potential to take out-growers back to dependency, would be eliminated. The aBi model could have been harmonised by allowing a 20 percent subsidy throughout the intervention instead of the gradual decline approach in the plan's design. In this case, farmers unwilling to pay 20 percent own contribution would have

been replaced by other already-profiled farmers.

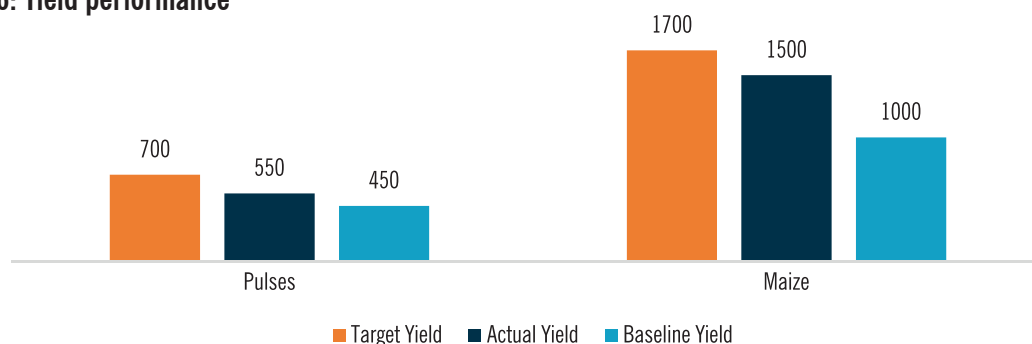
iii) Enrollment of the implementing partners

The project was initially ring-fenced to work with seven IPs; three in the cereals value chain, two in pulses and one in the oilseed value chain. As earlier noted, the oilseed value chain IP declined to participate, citing distortion in their business model since they were required to provide farmers free inputs for the first season 2020B. Some IPs in the cereal value chain ensured farmer contribution from the onset. In this case, farmers paid 20 percent throughout the project instead of the original zero, twenty and forty percent in the succeeding seasons. This created beneficiary project ownership, albeit a diversion from the initial design of the Rescue Plan.

iv) Yield performance

Considering productivity, the yields for pulses increased from 450 kgs per acre to 550 kgs, falling short of the target yield of 700 kgs, maize yield increased from 1,000 kgs to 1500 kgs, shy of the target of 1,700kg (Figure 36). Farmers who planted sorghum generally reported no change in yield due to the hot weather conditions in the Teso region. The average yield in the pulse value chain fell short due to; sharing of inputs among farmers and low adaptation of good agronomic practices as some farmers did not turn up for training, despite observation of SOPs at the training venues. Better adoption was noted in the cereal value chain as it is regarded a commercial crop, compared to pulses (aBi, 2021).

Figure 36: Yield performance



Source: Author's construction based on aBi Reports, 2021

5.2.5 Challenges towards the implementation of the aBi response plan

- i) In some seasons, agro-input suppliers were unable to deliver the required quantities due to insufficient stocks and dependence on imports. Seed farms cannot meet market demand, without outsourcing from out-growers. This was worsened by movement restriction and uncertainties that came with the lockdown, coupled with increased transportation costs, which led to interruptions in availability and accessibility.
- ii) Varying and uncoordinated implementation of COVID-19 response policies from country to country has continued to disrupt the movement of agro-inputs. With the intermittent application of lockdowns, more recently in Kenya and Uganda.
- iii) The quality of some inputs supplied fell short of the required standards giving rise to the need for increased monitoring, traceability and penalising the culprits. This discouraged farmers from adopting new technologies since there was no value-added.
- iv) The bean crop in the central region was attacked with pests and diseases. Farmers cited the purchase and use of counterfeit pesticides that were ineffective, a factor that endangered the sustainability of the project. Increased supervision by MAAIF is needed to minimise the detrimental effects of fake pesticides/inputs.
- v) Unwillingness by farmers to pay the 20 percent contribution in the proceeding season. The situation was aggravated by other development partners offering free seed in the same communities. There is a need for government and developmental partners to critically analyse the pros and cons of distributing free inputs, their effects on and sustainability of the supply chain and to agree a common course of action.
- vi) There was a lack of coordination with existing government projects (e.g. the Agriculture Cluster Development Programme) focusing on this area.

aBi cannot hold consultative meetings to plan and review performance with Government and other developmental partners.

- vii) In Kyegegwa and Kyenjojo districts, heavy rains destroyed crops, particularly beans that were near maturity. Farmers raised calls for affordable agricultural insurance to cushion them in such circumstances. As such, agricultural insurance providers have been linked to farmers through our existing IPs to continue narrowing down the existing information gap.
- viii) IPs expressed challenges of limited finance to procure the farmers produce at harvest time and thus failed to off-take farmers' produce. Despite, Opportunity bank's willingness to provide working capital, some IPs were unable to meet the requirements for accessing funds.

5.2.6 Lessons learnt

The fertiliser industry in Uganda faces supply-side limitations in meeting demand at short notice. Most suppliers were importing fertilisers from countries like Kenya, Japan, China and Russia. Any slight disruption in the supply chain would make suppliers fail to meet contractual obligations. This resulted in delayed deliveries of fertilisers to some IPs.

The lessons learnt in the aBi COVID-19 subsidy response plan are;

- i) Fertiliser blending needs to be well-planned to ensure the correct fertiliser blends and nutrient composition for the different IPs and geographical locations;
- ii) There is a need for more coordinated responses among the different stakeholders in the agriculture input space. There was duplication of projects in the same areas, with Government and other development partners operating in the same areas yet other areas were entirely left out.
- iii) There is need for institutional capacity building for the Uganda National Agro input Dealers

Association (UNADA), the umbrella body for agro-input dealers, to ensure that only quality inputs are put on the market and they represent value for money for farmers. To achieve this, Government needs to incentivise more private sector players to get into the input space and increase investment and competitiveness within the sector.

- iv) No single intervention can produce the intended benefits in the agriculture input sector. Rather, a multi intervention approach, of collaboration and coordinated efforts between the different players from input supply to off-take produce, should be used. Ancillary actors such as financing companies, to provide the much-needed capital, should also be included.

5.2.7 Conclusion and policy options

The COVID-19 epidemic continues to cause many uncertainties around the immediate and short-term economic effects at global and country levels. To improve access to high-quality seeds and fertilisers, there is a need to support and strengthen UNADA so that there is member ownership for the quality of inputs put on the market. UNADA should be the forefront advocates for strengthening the national certification and regulation system so as to guarantee the quality of agro-inputs on the market. Most importantly, UNADA should take punitive action (like suspension or stripping of licenses) against those found violating the set grain standards.

All the stages of the grain value chains need substantial capital investments and working capital to ensure the proper functioning of the agro ecosystem. Another need is the continuous improvement to meet the financing needs of the whole value chain, from agro-input dealers, farmers who carry out production, to off-takers.

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Endnotes

- 2 Deemed as critical mostly traded in foods and were to be supported through the already existing implementing partners.
- 3 July- December 2020
- 4 IPs are agribusiness partners with a clear strategic interest in participating and generating the impact aBi desires to achieve.
- 5 Applicants that meet the requirements stipulated in contractual terms for Opportunity Bank and aBi
- 6 Indirect costs included logistical costs involved in getting the inputs to the farmers like mobilisation and distributions costs.
- 7 January- June 2022
- 8 Local Market facilitator (LMF): Member of a Farmer group, Trainer of farmers and Business oriented (Aggregates farmer's produce at a commission paid by off takers).

5.3 ENSURING RESILIENCE IN THE SUPPLY OF AGRICULTURAL FINANCE AMIDST THE COVID-19 PANDEMIC: LESSONS FROM INDIA'S AMUL INTEGRATED COOPERATIVE MODEL

Joseph Sanjula Lutwama¹



5.3.1 Background

5.3.1.1 The impact of COVID-19 pandemic on the agricultural sector

COVID-19 disrupted the supply chains of the agricultural sector. Much as farming was one of the essential services that were exempted from the government lockdown measures, the distribution of the agricultural produce was

limited due to lockdown restrictions on movement. There was an initial spike in prices of non-perishable agricultural produce such as rice, processed maize and processed sugar as the public moved to stock sufficient food in anticipation of a long and drawn-out lockdown period (UN 2020). However, the initial demand spikes phased out and price declines set in as movement restrictions were eased.

The financing of agriculture was equally affected by the COVID-19 pandemic with a reduction in credit advanced

¹ Director of programmes, Financial sector Deepening, Uganda (lutwamajoseph@gmail.com)

Table 7: Average monthly growth rates in credit and deposits (percent)

	March-June 2020		July 2020-February 2021	
	Credit (%)	Deposits (%)	Credit (%)	Deposits (%)
Commercial Banks	3	10	5	10
Credit Institutions	4	13	9	16
MDIs	1	4	-1	1
SACCOs	-3	15	13	2

Source: Bank of Uganda Statistics accessed at <https://www.bou.or.ug/bou/bouwebsite/Statistics/Statistics.html>

to the sector. Cooperatives performed comparably better than other financial institutions as they recorded higher month on month rates of credit growth post the COVID-19 lockdowns (Table 7). While other financial institutions reduced on their lending, cooperatives continued to lend to their members which is an attestation to the distinctiveness of cooperatives as opposed to corporate enterprises. Cooperatives are able to continue to lend to their members even in the face of adverse economic conditions because they are controlled by their members who are also their customers² (Ketilson and Lou 2009).

5.3.2 Understanding cooperatives

5.3.2.1 The cooperative model versus the corporate model

Cooperatives are social enterprises that seek for maximisation of benefits for their members unlike the conventional corporate enterprises that seek to maximise profits for their shareholders (UNDP 2016). Cooperatives are member-owned and controlled, a scenario which makes members the owners, as well as, the customers. Cooperatives finance their members' economic activities through members' share capital and savings contributions. In the conventional business, the owner is different from the customer and their objectives are conflicted. The company seeks to maximise profits, minimise costs and the risk of losing their capital, while the customer seeks to maximise utility from the company's products at the lowest possible cost. Therefore, in the face of adverse economic conditions (similar to the ones occasioned by the COVID-19 lockdowns), financial institutions (most of which take the form of the conventional corporate structure) are more likely to cut down on financing to their customers in a bid to preserve their capital. And in line with their risk profiling, sectors like agriculture, which are considered the most risky, suffer most.

On the other hand, cooperatives are more likely to support their members even in times of economic adversity not only because the members are also the owners of the capital,

but they also understand their members' risks better. This possibly explains why during the COVID-19 lockdowns, SACCOs posted higher growth in credit compared to other financial institutions (Table 7).

5.3.3 The Integrated Cooperative Model: A case of economic and financial resilience during the COVID-19 crisis

5.3.3.1 The structure, operation and conduct of the integrated cooperative model

The integrated cooperative model vertically integrates all the functions in the value chain of the cooperative from production right up to marketing including financing (Mugisha et al., 2016, Kwapong 2013). This gives farmers more control over their levels of production, input and produce prices, access to markets and financing because they are able to leverage the economies of scale that come with integration. This approach ensures greater resilience of the cooperative and its members against economic shock because the farmers are in full control of the cooperative value chain.

In the case of Uganda, this model is promoted as a tripartite collaboration, where individual Smallholder Farmers (SHFs) come together to form Rural Producer Organisations (RPOs), which further come together, to form Area Co-operative Enterprises (ACEs) (Kwapong 2013, Thangata 2016). The ACEs focus on the collective processing and marketing of the members' produce to maximise producer prices and their returns on investment. The RPOs and ACEs are then linked to a SACCOs to complete the financing loop.

The most notable demonstration of the resilience of the integrated cooperative model during the COVID-19 pandemic crisis is the AMUL dairy cooperatives in the state of Gujarat, India. These cooperatives have a three-tiered structure with a village-level cooperative, a district-level union and a state-level federation that ensures a

direct link from the producers to the consumers of dairy products. Like in all integrated cooperative structures the producers (farmers) have full control of the various activities in the dairy value chain, completely replacing the role of middlemen (Ruete 2014, Kaur 2014).

Farmers supply fresh milk daily to Village Cooperative Societies (VCSs) which cooperate under District Cooperative Unions (DCUs). The DCUs process the milk and they together cooperate under the Gujarat Cooperative Milk Marketing Federation (GCMMF) which is the entity that markets all the milk and milk products produced by member milk unions.

The AMUL dairy cooperatives have adopted a value chain approach to financing agriculture which has ensured that the different actors across the value chain have access to affordable financing. The Village Cooperative Societies (VCSs) act as aggregators of loans from the formal financial institutions which they then retail to their members. In this case the farmers are able to leverage the superior credit worthiness of the VCSs to access more affordable agricultural finance (Srinivasan 2012). The loans the farmers receive are like advance payments which are deducted from their produce sales to the VCSs. With a guaranteed market from the GCMMF, the risk of default is substantially reduced, thereby increasing the creditworthiness of the farmers.

Likewise, the District Cooperative Unions (DCUs) are able to leverage the guaranteed market of their products by the Gujarat Cooperative Milk Marketing Federation (GCMMF) to access more affordable credit from formal financial institutions (Srinivasan 2012). In some cases the GCMMF can also provide supply-side financing to the DCUs against their sales to the GCMMF (Srinivasan 2012). While at other times the GCMMF leverages its AAA credit rating to provide loan guarantees to the DCUs (Kaihatsu Management Consulting, Inc. 2018).

5.3.3.2 A resilient Integrated Cooperative Model amidst the COVID-19 crisis: The case of the AMUL dairy cooperative in India

While other food supply chains were disrupted on the onset of the COVID-19 lockdowns in India, the AMUL dairy supply chains remained intact³. For example, vegetable farmers experienced a fall in commodity prices as was the case in many other countries like Uganda. Dairy farmers of the AMUL dairy cooperatives received fair prices of up to 80 percent of the original pre-lockdown commodity price⁴. The farmers continued to receive input services such as feed and fodder, artificial insemination, and veterinary services from their cooperatives without any interruptions, despite the lockdown-induced economic disruptions.

The AMUL cooperatives turned the COVID-19 crisis into an opportunity to grow their business. While the private dairy companies stopped production and dumped their surplus milk on the market, the AMUL cooperatives stepped up their milk purchases, procuring an additional 3.5 million liters of milk per day an equivalent of USD 108.3 million in extra income for over 3 million dairy farmers in rural India⁵. The surplus milk arising out of reduced public demand was processed by the District cooperative unions into value-added dairy products such as butter, cheese, ghee, and milk powder⁶. This mitigated against the steady fall in milk prices and ensured that the economic livelihoods of the farmers were not adversely affected.

The major driver of the exceptional performance of the AMUL cooperatives is the high prices they offer for their members' milk⁷ and which they continued to offer, even during the COVID-19 crisis. The vertical integration of the various functions across the cooperative value chain, enables the cooperatives to leverage economies of scale to achieve high levels of production and investment returns. The integrated approach has also made it easier for the government to provide targeted subsidies to the dairy sector in India with higher levels of success (Kaihatsu Management Consulting, Inc. 2018). This puts

the AMUL cooperatives in top position to offer competitive prices than their competitors. The efficiencies gained from the integrated cooperative approach make financing agriculture less risky and more rewarding for the financial institutions.

5.3.4 Lessons for Uganda

First, investment in value addition capacity is critical to the resilience of cooperatives in the face of crises which often translate into price volatility of agricultural produce. Having a tight value chain right from the production of milk at farm level right up to the export of processed milk products made it possible for the AMUL cooperatives to continue purchasing milk from their members at almost similar prices pre-the COVID-19 crisis. This was done despite the glut in the dairy market occasioned by the limited movements during the COVID-19 lockdowns. The surplus milk was processed into other dairy products with a longer shelf life which ultimately increased the overall revenues of the AMUL dairy ecosystem.

Secondly, specialisation in one product per cooperative ecosystem is critical to the financial resilience of cooperatives during times of economic adversity. Specialisation builds the capabilities of the various actors in the cooperatives ecosystem to better understand, detect and mitigate against the various risks in the ecosystem. This is critical because each agricultural value chain presents unique risks that are different from those of other value chains.

The third lessons is that a tightly-knit value chain with all actors working in consonant with each other made it much easier for the Indian government to provide additional support to the AMUL cooperatives during the COVID-19 crisis. The cooperatives used the vast linkages and relationships among the different actors in the value chain to get government support right-up to the intended beneficiaries at the village level.

5.3.5 Conclusions and policy recommendations

Over the last decade, there has been increased emphasis on cooperative development which has resulted in exponential growth in the SACCOs. While SACCOs are necessary, there are not sufficient in addressing the financing challenges of agriculture because of their limited capacity to mitigate the risks inherent in agriculture. Focus needs to be placed on promoting the integrated cooperative model that organises actors along value chains for economies of scale at production (producer organisations) and post-harvest (storage processing and marketing) stages. The organisation also eases training, technology dissemination and cost reduction because of bulking of inputs, outputs and financial services (with groups and cooperatives acting as intermediaries). By overcoming the risks inherent in agriculture, particularly smallholder agriculture, the integrated model ultimately increases the creditworthiness of the farmer.

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5.4 FACILITATING AGRIBUSINESSES CROSS-BORDER TRADE DURING COVID-19 DISRUPTIONS: A CASE OF REACTS-II PROJECT

Patrick Muganga¹



5.4.1 Introduction

Uganda is regarded as a potential food basket for the region with a surplus of beans and maize as well other agricultural commodities. However, this has not been translated into sizeable exports to East African Community (EAC) and other trading blocs, despite food deficits in the neighbouring countries. For instance, Kenya has more than 1.2 million MT maize deficit annually (Kang'ethe *et al.*, 2020). These deficits are currently filled by imports, mainly from Mexico and Ukraine (ITC, 2021). The regional maize deficit is projected to reach 8 MT per annum in the next decade (ACDP, 2015).

Maize and beans remain priority enterprises in Uganda's agricultural sector because they employ 55 percent and 54 percent, respectively, of the 7.4 million agricultural households (UBoS, 2018). Thus, the enterprises are

prioritised under the Export Promotion Action Plan of 2016. The plan targets to grow beans and maize annual export earnings to USD 526.8 million and USD 784.2 million, respectively, by 2021. However, by 2020, the value of Uganda's beans and maize exports were estimated at USD 60.2 million (for 95,047MT) and USD109 million (for 324,164MT), respectively. For the past five years (2016 to 2020), beans and maize exports by volume have decreased by 66 percent and 16 percent, respectively (BoU, 2020).

Large or medium enterprises mainly dominate structured (formal) cross-border trade because of their ability to meet the stringent market requirements that require high levels of investment in grain aggregation and processing facilities. However, SMEs (including cooperatives) play a critical role in linking farmers to markets, with over 60-70 percent of the traded volumes of grains channelled through SMEs. Because of the limited awareness on cross border trade and the inability to meet stringent

¹ Former senior program manager. KilimoTrust (pmuganga10@gmail.com)

market requirements (especially quality, volumes and consistency), SMEs only dominate the informal form of cross-border trade.

The high level of trade informality accompanied by poor quality and limited industry regulation partly explains the low competitiveness of Uganda's agricultural produce (especially maize and beans). For example, Uganda's maize is often branded "chicken feed" by Kenyan buyers, yet they often blend it with high quality and expensive maize from other countries. Uganda's maize is mainly associated with high levels of aflatoxins, high moisture content and foreign matter. Poor quality translates into lower prices being offered for Ugandan maize. The low prices offered and the inability to find ready markets are a disincentive for the farmers to invest in for increased productivity-enhancing management practices and technologies.

Besides poor quality produce, SMEs' ability to participate in cross-border trade was further worsened by a set of measures put in place by Government, to control the COVID-19 pandemic. Restrictions on movements, closure of borders and border markets, reduced international demand, extra cross-border procedures for truck drivers, ban on weekly/monthly markets and closure of institutional buyers (schools, restaurants, and hotels) resulted in limited farmer and SME access to output markets, high food losses and reduced trade flows (AGRA 2020).

This article shares challenges, key success factors and lessons from the REACTS-II project on facilitating cross border trade for small and medium agribusiness enterprises during COVID-19 pandemic lockdown.

5.4.2 Case presentation of REACTS-II project interventions

To address the market access challenge for SMEs, Kilimo Trust through the Regional East Africa Community Trade in Staples (REACTS-II), a project funded by Alliance for a Green Revolution in Africa (AGRA), supported SMEs

(mainly cooperatives) to actively participate in formal, structured, and sustainable cross-border trade with restricted movements.

The foundation for trade was laid in late October 2019 when REACTS-II organised a business visit for 20 Ugandan aggregators to expose them to more structured maize market opportunities in Kenya. The delegation comprised managers of cooperatives and a few large-scale national grain handlers. During the trip, it was necessary to match the aggregators with off-takers of similar capacity to manage expectations for sustainable business linkages. That is how the Ugandan aggregators were introduced to the Agro-Processors Association of Kenya (APAK), a platform that brings together 67 small scale grain processors and aggregators (5 - 50MT per day). After a series of business-to-business meetings and visits to buyers' facilities, the two parties agreed to work together. Key outcome of the business trip was the realisation that no single cooperative or trader could satisfy the current demand by working in isolation. This informed the formation of the Network of Producers and Exporters Uganda Limited (NePEU), with the aim of leveraging resources among members to ensure continuous supply to the identified market. NePEU is now a legally registered entity with a membership of over 30 cooperatives interested in tapping into regional markets.

NePEU manages orders on behalf of APAK and its members, builds members' capacity to be competitive suppliers, and is involved in arbitration, in case of challenges between the supplier and buyer. Following the trip, the REACTS-II project intensified capacity building interventions of Uganda aggregators with emphasis on (i) business management and professionalisation, (ii) quality improvement through training on standards and access to appropriate technologies (iii) linkages to providers of finance and technologies, and (iv) linking NePEU to relevant non-traditional partners such as revenue authorities, Ministry of East African Affairs (MEACA), logistics companies and many others.

In February 2020, the REACTS-II project also supported

a delegation of 34 traders and millers from Kenya for an exposure visit to Ugandan aggregators on a fact-finding and due-diligence mission. Following the trip, a Memorandum of Understanding (MoU) was signed between NePEU and APAK to guide the trading of 100,000 MT of grains and pulses on an annual basis. This was in addition to paving the way for pre-financing of aggregation by Kenyan importers. With restricted movements, a *WhatsApp* group was established to exchange business information and transaction management. In June 2020, at the peak of COVID-19 impacts, actual trade started.

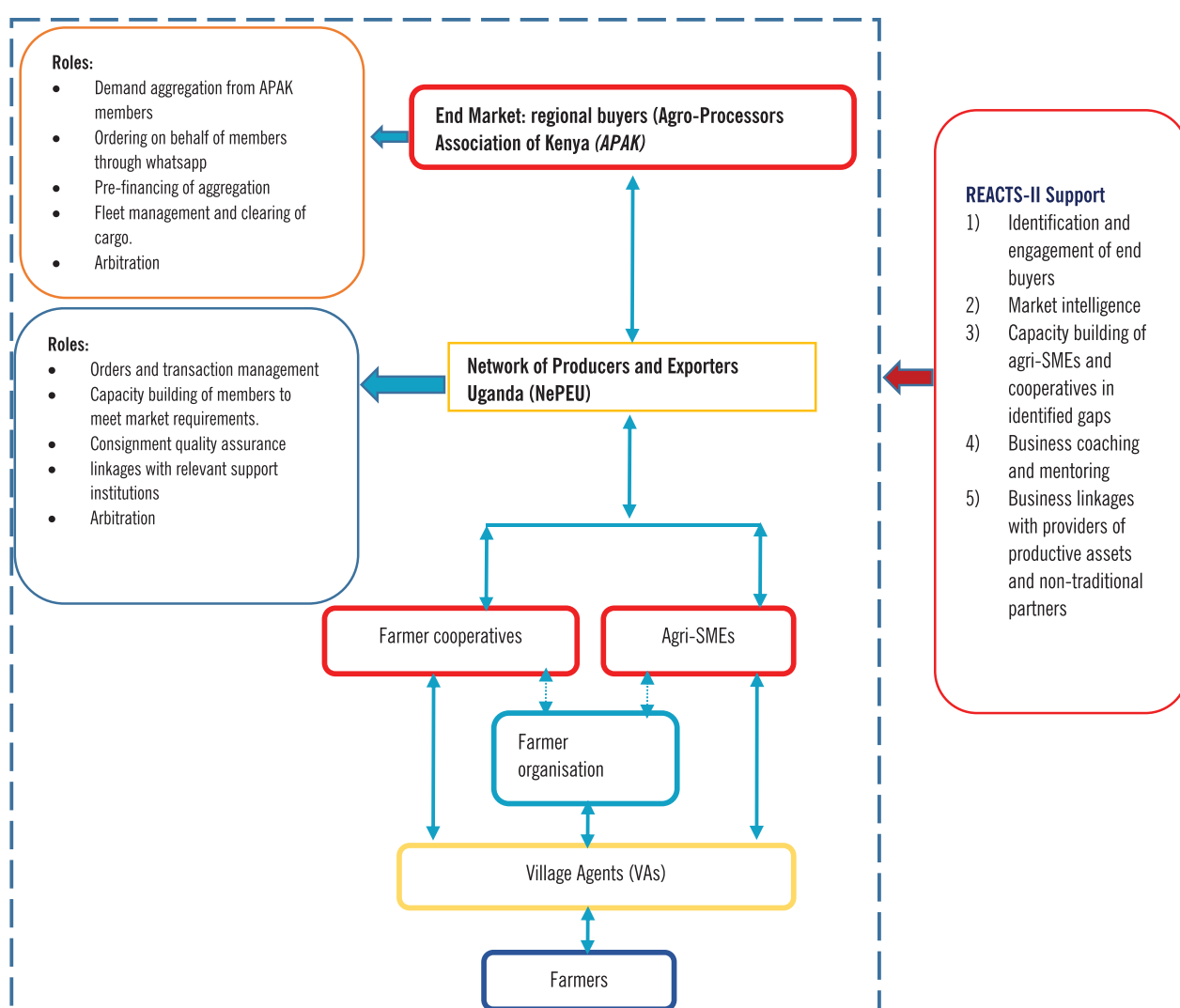
5.4.2.1 Business transaction mechanism

The transaction process is initiated either by a Ugandan

aggregator (looking for market) or a Kenyan importer (in need of supply) by posting the request on the *WhatsApp* platform. Interested parties have side negotiations, and once an agreement is reached, the importer pays for the consignment either through NePEU or directly to the supplier's account, on consultation and clearance by APAK and NePEU secretariat.

Once funds are received on NePEU's account, the secretariat transfers funds to the supplier (any of NePEU's members) after ascertaining produce availability. Upon receipt of payment, the supplier is given 2-4 days to prepare the consignment. APAK handles logistics and clearance of cargo at the border on behalf of the importer, through a network of clearing agents known to APAK

Figure 37: The REACTS project business model



and NePEU. For the sustainability of NePEU and APAK secretariat services, a small commission is charged for each transaction to cater for operational costs. Figure 37 shows the business model that was employed to support agri-SMEs participating in cross-border trade.

5.4.3 Performance of the REACTS-II project on facilitating agri-SMEs engagement in cross border trade

i) Volumes of produce traded

From June 2020 to March 2021, over 15,000 MT of maize and beans, worth USD 3.1 million, have been exported to over 25 Kenyan small-scale millers under structured arrangements by Ugandan Agri-SMEs and cooperatives without the Kenyans travelling to Uganda, as was before. This is in comparison to close to 1,000MT of produce directly exported by targeted Agri-SMEs under the REACTS-II project in the first year of the project. Figure 38 shows the case of Bigando ACE that has increased traded volumes due to access to regional markets. Bigando ACE has seen a 19-fold increase in the volumes traded per season. It traded 66MT and 1,300 MT of maize for the periods July 2019 to February 2020, and July 2020 to February 2021 respectively.

ii) Higher price quality and better trust

Ugandan suppliers received a price mark-up of UGX 50-100 per Kg in comparison to prevailing market prices. Trust has been cultivated (a reason for pre-financing by importers). No incidents of loss of funds on either side was reported, which was expected when APAK members dealt with brokers. Due to established traceability systems, 70 percent of produce traded through this platform passed the aflatoxin test;

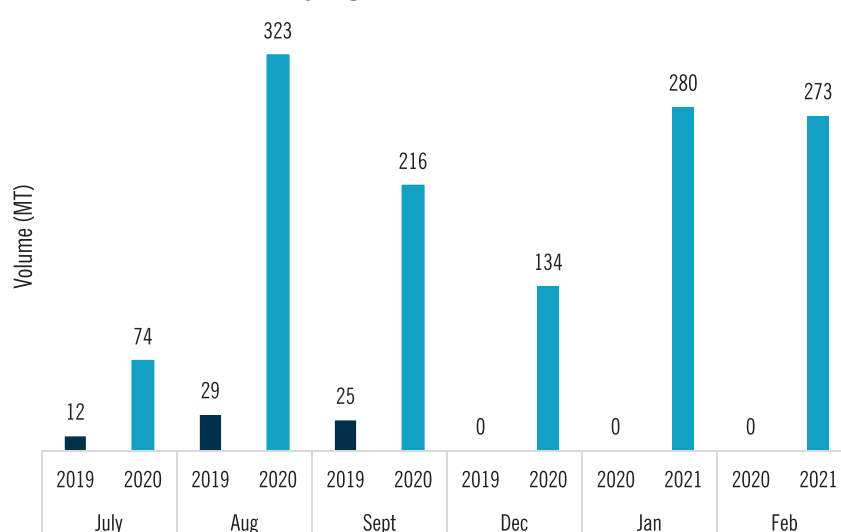
iii) Self-regulation

Industry self-regulatory mechanisms have been established, and willingness of the partners to grow together with a long term perspective. In addition, secured buy-in from different stakeholders through the REACTS-II steering committee, which is chaired by the Permanent Secretary, MEACA and responsible for up scaling REACTS-II project lessons on regional trade has been achieved; and

iv) Large scale storage secured

Early successes have prompted APAK to secure a 9,000 MT capacity store from National Produce and Cereal Board (NPCB) in Nakuru to act as a holding store to reduce

Figure 38: Comparison of volumes traded by Bigando ACE



Source: Author's construct

transaction time.

5.4.4 Challenges in facilitating agribusiness cross-border trade

During the project implementation, the following key challenges were encountered:

- i. COVID-9 measures at the borders, such as COVID-19 testing procedures, increased the cost of doing business and trucks delays, in some cases, up to 3-4 days.
- ii. Due to limited access to improved post-harvest technologies especially drying facilities, attaining required quality parameters, especially moisture content, was challenging for most cooperatives. This led to unnecessary delays. The project co-invested with cooperatives to access critical technologies and intensified capacity building in standards and grading.
- iii. Most cooperatives' socially-oriented perspective and management made them uncompetitive, especially where quick business decision-making was needed.
- iv. Access to trucks is a problem, especially in major production areas like Kasese and Masindi in Uganda. In addition, transport fare in such places is costly. REACTS-II engaged truck owners for better coordination of return trucks.
- v. Limited access to working capital by most cooperatives and Agri-SMEs to facilitate aggregation. NePEU secretariat and REACTS-II project convinced Kenyan importers to pre-finance aggregation and linked agri-SMEs to commercial institutions for sustainable access to credit.
- vi. Exchange rate variability and hidden costs, that are not well explained by financial institutions affected cross-border remittances. To reduce the impact, NePEU opened two accounts (one in Uganda shillings and the other in Kenya shillings) to mitigate the effects of exchange rate variability. Kenyan importers were sensitised to negotiate with bank managers in charge of the exchange rate,

before undertaking any transaction.

- vii. The limited engagement of key agricultural trade facilitation players. For example, the URA, Uganda National Bureau of Standards (UNBS), Police, Uganda Export Promotions Board (UEPB), MEACA, truck owners, clearing agents and many others, created unnecessary non-tariff barriers (NTBs).

5.4.5 Lessons learnt

From REACTS-II project, the critical lessons learnt that could inform future programming include;

- i. Trade-facilitating projects require not less than 5 years to bring about market systems change that is sustainable, given the current capacity of most cooperatives and agri-SMEs.
- ii. There is a need to actualise a multi-sectoral approach to agricultural projects implementation to enhance synergies and collaboration. This is because agricultural development and trade involve multiple interrelated sectors such as agriculture, water, trade, East African Affairs and many others. For instance, engaging URA and MEACA were key to addressing NTBs along the major routes;
- iii. The provision of tailored business development services for SMEs (including cooperatives) can ease access to markets for smallholder farmers;
- iv. In addition to agricultural infrastructural investments (such as storage facilities), it is equally critical to invest in soft infrastructure, especially business skills, leadership, governance and partnerships management for sustainable management of such facilities.
- v. For regional trade to work, market off-takers need to be supported to access low-cost trade financing to facilitate produce aggregation during peak season;
- vi. A neutral and respected facilitator is critical for arbitration among business partners involved cross border trade, building capacity for supply chain management, and addressing emerging challenges;

- vii. Digitalising agricultural systems is key to lowering the cost of operations and turnaround time;
- viii. Up-scaling low cost and efficient aggregation models such as village agent model and consortia approach to improve service delivery and operational efficiency of supply chains.
- ix. Business-to-business networking such as exposure visits are critical for opening and sustaining trade opportunities; and
- x. Capacitating entities like UNBS and local governments to enforce standards is critical for sustainable access to identified markets.

5.4.6 Key investments for facilitating agribusiness cross border trade

Scaling out REACTS-II lessons and successes would require the following key investments;

- i. Investment in periodic market research is a cornerstone for responding to regional and international market opportunities. Commercial diplomacy should also be strengthened.
- ii. Invest in decentralising vital trade services for key institutions such as UNBS and URA to improve trade efficiency.
- iii. Build capacity of facilitators (public and non-state actors) that provide a trade-based extension to value chain actors.
- iv. More investments are required to support SME certification (establishment of quality management and assurance systems, investment in post-harvest handling appropriate technologies (especially drying facilities and aflatoxin testing)) and logistics coordination.
- v. Strengthen capacity of trade associations for industry self-regulation, especially capacitating the entities that support their members to take advantage of profitable trade opportunities.
- vi. Pilot appropriate agricultural trade financing products and mechanisms for SMEs and cooperatives. For instance, cooperatives can easily be financed through NePEU, which can risk-share

with financial institutions.

5.4.7: Way forward

REACTS-II project demonstrated that Agri-SMEs (including cooperatives) could competitively participate in structured trade arrangements if capacitated. However, for this to happen, more investments are still needed to; professionalise agri-SMEs (including farmer cooperatives), improve quality assurance; strengthen horizontal and vertical associations; roll out appropriate trade financing products for SMEs; and adopt a multi-sectoral approach to implementation of agricultural projects.

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2 nd Edition	Bank of Uganda, MAAIF (PMS secretariat), GTZ and Sida	Agricultural Finance Yearbook 2008	2008	http://star-www.giz.de/fetch/4Q0p74X0001H0gY3gT/gtz2009-0948en-uganda-agricultural-finance-yearbook-2008.pdf
3 rd Edition	Bank of Uganda, MAAIF (PMS secretariat), GTZ	Agricultural Finance Yearbook 2009 Investment led productivity building in agricultural value chains	2009	https://www.yumpu.com/en/document/read/43075312/agricultural-finance-yearbook-2009-agriculture-finance-support-
6 th Edition	GIZ, Bank of Uganda, MAAIF (PMS secretariat) and aBi Trust	Agricultural Finance Yearbook 2011 Agricultural Finance: Coping with Economic Realities	2011	http://www.giz.de/en/mediacenter/publications.html http://star-www.inwent.org/starweb/giz/pub/servlet.starweb
7 th Edition	GIZ, Bank of Uganda, MAAIF (PMS secretariat) and aBi Trust	Agricultural Finance Yearbook 2012 Transformation of the Agricultural Sector: The critical role of Agricultural Finance	2012	http://star-www.giz.de/fetch/4Q0p84X0001H0g23th/giz2013-0643en-uganda-agricultural-finance-yearbook-2012.pdf
8 th Edition	Bank of Uganda, MAAIF and Economic Policy Research Centre	Agricultural Finance Yearbook 2015 Innovations and Research in Agricultural Finance	2015	https://eprcug.org/publication/agriculture-finance-yearbook-2015-innovations-and-research-in-agriculture-finance/
9 th Edition	Economic Policy Research Centre & Ministry of Finance, Planning and Economic Development	Agricultural Finance Yearbook 2019 Development Financing for Agro-industrialisation	2019	https://eprcug.org/publication/agriculture-finance-year-book-2019-development-financing-for-agro-industrialisation/
10 th Edition	Economic Policy Research Centre & Ministry of Finance, Planning and Economic Development	Agricultural Finance Yearbook 2020 Digitalisation and Agricultural Financing in Uganda	2020	https://www.abi.co.ug/wp-content/uploads/2020/12/2020-AFYB-Final_Edited.pdf

A photograph of a man in a yellow polo shirt and a dark cap with a logo, wearing a blue surgical mask. He is holding a black smartphone in both hands and looking down at it. He stands in a market stall. To his left, there are several baskets and trays of fresh produce, including a large tray of red tomatoes in the foreground and baskets of red onions above. In the background, other market stalls and people are visible under a blue tarp.

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