



# AGRO-INDUSTRIALIZATION PROGRAMME

## SEMI-ANNUAL BUDGET MONITORING REPORT

**FINANCIAL YEAR 2022/23**

APRIL 2023

Budget Monitoring and Accountability Unit  
Ministry of Finance, Planning and Economic Development  
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## ABBREVIATIONS

<b>ACDP</b>	Agriculture Cluster Development Project
<b>ACF</b>	Agriculture Credit Facility
<b>ADB</b>	African Development Bank
<b>AEG</b>	Agricultural Extension Grant
<b>AGPP</b>	Agriculture Geo Portal Platform
<b>AIC</b>	Agricultural Consortium
<b>AnGRC</b>	Animal Genetic Resource Centre
<b>AQUAMIS</b>	Aquaculture Management Information System
<b>ARMC</b>	Agricultural Regional Mechanization Centres
<b>AVCDS</b>	Agricultural Value Chain Development Strategy
<b>AVCP</b>	Agriculture Value Chain Development Project
<b>BCTB</b>	Black Coffee Twig Borer
<b>BMAU</b>	Budget Monitoring and Accountability Unit
<b>BMPS</b>	Best Aquaculture Practices
<b>Bn</b>	Billion
<b>BoQs</b>	Bills of Quantities
<b>BoU</b>	Bank of Uganda
<b>CAADP</b>	Comprehensive Africa Agriculture Development Program
<b>CAO</b>	Chief Administrative Officer
<b>CBPP</b>	Contagious Bovine Pleuro Pneumonia
<b>CDO</b>	Cotton Development Organization
<b>CF</b>	Community Facilitator
<b>CGS</b>	Competitive Grant Scheme
<b>CI</b>	Credit Institution
<b>COVID-19</b>	Corona Virus Disease- 2019
<b>CPDCP</b>	Crop Pests and Diseases Control projects
<b>CRB</b>	Credit Reference Bureau
<b>CSR</b>	Community Social Responsibility
<b>CTC</b>	Cut Tear and Curl
<b>CWDR</b>	Coffee Wilt Disease Resistant
<b>CWD-r</b>	Coffee Wilt Disease Resistant
<b>DAES</b>	Department of Agricultural Extension and Skills Management
<b>DAIED</b>	Department of Agricultural Investment and Enterprise Development
<b>DAOs</b>	District Agricultural Officer
<b>DAP</b>	Di-ammonium Phosphate
<b>DARST</b>	District Adaptive Research Support Teams
<b>DDA</b>	Dairy Development Authority
<b>DFCS</b>	Dairy Farmers Cooperatives
<b>DiFR</b>	Directorate of Fisheries Resources
<b>DLG</b>	District Local Government
<b>DLP</b>	Defects Liability Period
<b>DPOs</b>	District Production Officers
<b>DRMS</b>	Domestic Revenue Mobilization Strategy
<b>DVO</b>	District Veterinary Officer
<b>EAC</b>	East African Community
<b>EBQC</b>	Elementary Basic Quality Control
<b>EDF</b>	European Development Fund



<b>EDTS</b>	Entebbe Dairy Training School
<b>EIA</b>	Environmental Impact Assessment
<b>ESIA</b>	Environmental Social Impact Assessment
<b>ESMP</b>	Environmental and Social Management Plans
<b>EU</b>	European Union
<b>EVMG</b>	Electronic Voucher Management Agency
<b>FAW</b>	Fall Armyworm
<b>FFB</b>	Fresh Fruit Bunches
<b>FFS</b>	Farmer Field Schools
<b>FGDs</b>	Focus Group Discussions
<b>FMD</b>	Foot and Mouth Disease
<b>FO</b>	Fisheries Officer
<b>FOs</b>	Farmer Organizations
<b>FPF</b>	Fisheries Protection Force
<b>FY</b>	Financial Year
<b>GAP</b>	Good Agricultural Practices
<b>GDP</b>	Gross Domestic Product
<b>GIS</b>	Geographical Information System
<b>GoU</b>	Government of Uganda
<b>GPS</b>	Global Positioning System
<b>GRP</b>	Goat Roll-Out Project
<b>Ha</b>	Hectare
<b>HH</b>	Households
<b>HRD</b>	Human Resource Development
<b>ICT</b>	Information and Communications Technology
<b>IDA</b>	International Development Association
<b>IDB</b>	Islamic Development Bank
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFMS</b>	Integrated Financial Management System
<b>ISO</b>	Irrigation Systems Operator
<b>IT</b>	Information Technology
<b>IVF</b>	Invitro-fertilization
<b>IWUA</b>	Irrigation Water User Association
<b>JICA</b>	Japanese International Cooperation Agency
<b>KCCA</b>	Kampala Capital City Authority
<b>KENAS</b>	Kenya Accreditation services
<b>Kg</b>	Kilogram
<b>Km</b>	Kilometer
<b>KOPGT</b>	Kalangala Oil Palm Growers Trust
<b>LA</b>	Village Savings and Loan Association
<b>LEGSP</b>	Local Economic Growth Support project
<b>LES</b>	Livestock Experimental Station
<b>LG</b>	Local Government
<b>LLG</b>	Lower Local Government
<b>LSD</b>	Lumpy Skin Disease
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MAAIF</b>	Ministry of Agriculture, Animal Industry and Fisheries
<b>MATIP</b>	Markets and Agricultural Trade Improvement Project
<b>MCAL</b>	Mutuma Commercial Agencies Limited



<b>MCC</b>	Milk Collection Centre
<b>MDALGS</b>	Ministries, Departments, Agencies and Local Government
<b>MDAs</b>	Ministries, Departments and Agencies
<b>MEMD</b>	Ministry of Energy and Mineral Development
<b>MFIs</b>	Micro-finance Institutions
<b>MFPED</b>	Ministry of Finance, Planning and Economic Development
<b>MIS</b>	Management Information System
<b>Mn</b>	Million
<b>MOBIP</b>	Market Oriented and Environmentally Sustainable Beef Industry
<b>MOH</b>	Ministry of Health
<b>MoICT</b>	Ministry of Information and Communication Technology
<b>MoLG</b>	Ministry of Local Government
<b>MoPS</b>	Ministry of Public Service
<b>MoU</b>	Memorandum of Understanding
<b>MPS</b>	Ministerial Policy Statement
<b>MSCL</b>	Microfinance Support Centre Ltd
<b>MSME</b>	Ministry of Micro, Small and Medium Enterprises
<b>MT</b>	Metric Tone
<b>MTIC</b>	Ministry of Trade Industry and Cooperatives
<b>MWE</b>	Ministry of Water and Environment
<b>NAADS</b>	National Agricultural Advisory Services
<b>NaCORI</b>	National Coffee Research Institute
<b>NaCRRI</b>	National Crops Resources Research Institute
<b>NADDEC</b>	National Animal Disease Diagnostics and Epidemiology Centre
<b>NAEP</b>	National Agricultural Extension Policy
<b>NAES</b>	National Agricultural Extension Strategy
<b>NaFIRRI</b>	National Fisheries Resources Research Institute
<b>NaFORRI</b>	National Forestry Resources Research Institute
<b>NAGRC&amp;DB</b>	National Animal Genetic Resources Centre and Data Bank
<b>NaLiRRI</b>	National Livestock Resources Research Institute
<b>NARL</b>	National Agricultural Research Laboratories
<b>NARO</b>	National Agriculture Research Organization
<b>NAROSEC</b>	National Agriculture Research Organization Secretariat
<b>NASARRI</b>	National Semi-Arid Resources Research Institute
<b>NBC</b>	National Biosafety Committee
<b>NCD</b>	Newcastle Disease Vaccine
<b>NCS</b>	National Council of Science
<b>NDA</b>	National Drug Authority
<b>NDAL</b>	National Dairy Analytical Laboratory
<b>NDP</b>	National Development Plan
<b>NEC</b>	National Enterprise Corporation
<b>NEMA</b>	National Environment Management Authority
<b>NIN</b>	National Identification Number
<b>NIRA</b>	National Identification and Registration Authority
<b>NITA-U</b>	National Information Technology Authority- Uganda
<b>NLI</b>	National Leadership Institute
<b>NLR</b>	National Laboratories Research
<b>NML</b>	National Metrological Laboratory
<b>NMS</b>	National Medical Store



<b>NOPP</b>	National Oil Palm Project
<b>NOPP</b>	National Oil Palm Programme
<b>NPA</b>	National Planning Authority
<b>NPT</b>	National Performance Trial fields
<b>NWSC</b>	National Water and Sewerage Corporation
<b>OAG</b>	Office of the Auditor General
<b>OPBL</b>	Oil Palm Buvuma Limited
<b>OWC</b>	Operation Wealth Creation
<b>PAH</b>	Polycyclic Aromatic Hydrocarbons
<b>PBS</b>	Programme-Based Budgeting System
<b>PDC</b>	Parish Development Committee
<b>PDM</b>	Parish Development Model
<b>PDMMIS</b>	Parish Development Management Information System
<b>PESCA</b>	Promoting Environmentally Sustainable Commercial Agriculture
<b>PFI</b>	Participating Financial Institution
<b>PFM</b>	Public Financial Management
<b>PIAP</b>	Programme Implementation Action Plans
<b>PIAPS</b>	Project Affected Persons
<b>PMG</b>	Production and Marketing Grant
<b>PMU</b>	Programme Implementation Unit
<b>POs</b>	Producer Organizations
<b>PPC</b>	Portland Pozzolanic Cement
<b>PPDA</b>	Public Procurement and Disposal of Assets
<b>PPE</b>	Personal Protective Equipment
<b>PPP</b>	Public-Private Partnership
<b>PPR</b>	Peste des petits ruminants
<b>PRELNOR</b>	Project for Restoration of Livelihoods in the Northern Region
<b>PSP</b>	Public Stand Posts
<b>PWD</b>	Persons with Disabilities
<b>Q</b>	Quarter
<b>RAP</b>	Resettlement Action Plan
<b>RCEOs</b>	Regional Coffee Extension Officers
<b>SACCO</b>	Savings and Credit Cooperative Organization
<b>SAGIP</b>	Strategic Intervention for Animal Genetic Improvement Project
<b>SLM</b>	Sustainable Land Management
<b>SMEs</b>	Small and Medium Enterprises
<b>SOFTE</b>	Soroti Fruit Factory
<b>SOP</b>	Standard Operating Procedure
<b>SRS</b>	System Requirements Specification
<b>SSI</b>	Small Scale Irrigation
<b>TC</b>	Town Council
<b>TRICOT</b>	Triadic Comparison Of Technologies
<b>UAIS</b>	Uganda Agricultural Insurance Scheme
<b>UBA</b>	United Bank of Africa
<b>UCDA</b>	Uganda Coffee Development Authority
<b>UCF</b>	Uganda Coffee Federation
<b>UDB</b>	Uganda Development Bank
<b>UDC</b>	Uganda Development Corporation
<b>UETCL</b>	Uganda Electricity Transmission Company Limited



<b>Ug shs</b>	Uganda Shillings
<b>UGCEA</b>	Uganda Ginners and Cotton Exports Association
<b>UGIFT</b>	Uganda Intergovernmental Fiscal Transfer Program
<b>UHT</b>	Ultra-High Temperature
<b>UNBS</b>	Uganda National Bureau of Standards
<b>UNRA</b>	Uganda National Road Authority
<b>UPDF</b>	Uganda Peoples Defense Forces
<b>URA</b>	Uganda Revenue Authority
<b>URSB</b>	Uganda Registration Services Bureau
<b>USA</b>	United States of America
<b>USADAF</b>	United States African Development Foundation
<b>USAID</b>	United States Agency For International Development
<b>USD</b>	US Dollars
<b>VAT</b>	Value Added Tax
<b>VFM</b>	Value For Money
<b>VRC</b>	Variety Release Committee
<b>VSLA</b>	Village Savings and Loans Association
<b>VT</b>	Valley Tanks
<b>WRS</b>	Warehouse Receipt System Services
<b>WUA</b>	Water Users' Association
<b>ZARDI</b>	Zonal Agricultural Research Development Institute



## FOREWORD

Uganda like many other countries in the world continues to be affected by the aftermaths of the Coronavirus Disease (COVID-19) pandemic, Russia's invasion of Ukraine, climate change effects, and increasing food prices among the many global shocks today. Amidst this environment, the Government has shown a strong commitment to innovatively raise and allocate resources to fund its strategic interventions, in a bid to build resilience and drive sustainable economic growth and development.

For this Financial Year 2022/23, the semi-annual programme monitoring findings show a fair performance across the board, with a few programmes on track to achieving their annual goals. This performance notwithstanding, there are still many perennial challenges that are putting many government interventions at risk of not achieving their intended objectives.

Since we are operating in an environment of scarcity, it is imperative that we expedite the processes of streamlining and strengthening our planning, implementation, monitoring and execution of Government programmes. We must harness the comparative advantages expected from operating in a programme mode. To that effect, all Ministries, Departments, Agencies and Local Governments should critically review the noted challenges and institute innovative ways of circumventing them during the remaining months.

Ramathan Ggoobi

**Permanent Secretary/Secretary to the Treasury**



## EXECUTIVE SUMMARY

### Introduction

Starting Financial Year (FY) 2021/22, the Budget Monitoring and Accountability Unit commenced Programme-Based Monitoring to assess performance against targets and outcomes in the Programme Implementation Action Plans (PIAPs) and Ministerial Policy Statements (MPSs). This report presents findings from monitoring the Agro-Industrialization Programme for the budget execution period 1<sup>st</sup> July 2021 to 30<sup>th</sup> June 2022. The Agro-Industrialization Programme goal is to increase commercialization and competitiveness of agricultural production and agro-processing. The programme has five sub-programmes, namely: a) Agricultural Production and Productivity; b) Storage, Agro-Processing and Value Addition; c) Agricultural Market Access and Competitiveness; d) Agricultural Financing; and e) Institutional Strengthening and Coordination.

### Overall Programme Performance

#### Financial performance

The approved budget for the agro-industrialization programme for FY2022/23 is Ug shs 1.450 trillion of which Ug shs 563 billion (38%) was released and Ug shs 431 billion (bn) spent as at 31<sup>st</sup> December 2022.

The Agriculture Production and Productivity Sub-programme dominated all the other sub-programmes in relation to the share of the programme budget, with Storage, Agro-Processing and Value Addition receiving the least share. This implies that Government of Uganda (GoU)'s focus remains more on the lower stages of the agricultural value chain, with higher stages left to the private sector with its resultant effects of market failure.

#### Performance highlights

**The overall performance of the Agro-Industrialization Programme as at 31<sup>st</sup> December 2022 was fair at 58% attainment of outputs.** The highest performing sub-programme was Agricultural Production and Productivity at 75%, followed by Storage, Agro-Processing and Value Addition at 74%. The worst performing sub-programmes were Institutional Strengthening and Coordination at 27% and Agricultural Market Access and Competitiveness at 42%.

The good performance under the Production and Productivity Sub-programme was driven by agriculture research and technology generation spearheaded by the National Agriculture Research Organization. Conversely the poor performance under Institutional Strengthening and Coordination was attributed to delayed implementation of the Parish Development Model (PDM) while incomplete markets, delayed completion of roads linking farms to markets, poor post-harvest handling, inadequate controls and certification explains the poor performance under Agricultural Market Access and Competitiveness sub programme.

**The Government was moving positively in achieving the programme outcomes.** The Real Gross Domestic Product (RGDP) growth rate for agriculture, forestry and fisheries as at 31<sup>st</sup> December 2022 was attained at 77 percent. The RGDP growth rate was at 4.3 percent against the annual target of 5.6 percent. In addition, the Total Export Value of priority agricultural commodities performed at 70 percent with US\$1.269bn recorded in the export value against the US\$1.818bn target.

Some targets were however missed for instance: percentage change in yield of priority agricultural commodities partly due to soil exhaustion, fake fertilizers on the market, and Proportion of



households' dependent on subsistence agriculture as a main source of livelihood (%). As at 31<sup>st</sup> December 2022, 39 percent of households (3.5 million) continued in the subsistence economy compared to 61 percent (5.4 million) in the non-subsistence economy in 2019/20. Of the 3.5 million households in the subsistence economy, 62 percent were engaged mainly in subsistence agriculture.

**Establishment of storage, agro-processing and value addition recorded good progress by the Cotton Development Organization** component of operationalization of the cotton seed dressing station and production of cotton products particularly under Fine spinners using the lint buffer stock fund which registered good performance.

Acquisition of agro-processing equipment performed better than the installation, testing and commissioning part with majority (70%) of the facilities not operational due to lack of grid electricity. Non-operational facilities were also occasioned by partial deliveries under both the Agriculture Cluster Development Project under the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Agri-led interventions implemented by the National Agriculture Advisory Services (NAADS) on behalf of Ministry of Local Government (MoLG).

**Agriculture research and technology development implemented by the National Agricultural Research Organisation (NARO) as the lead implementing agency recorded good progress.** The anti-tick vaccines were ready and under trial for one year in five locations at NARO Institutions and prison farms. Testing of the Foot and Mouth Disease (FMD) and African Swine Fever candidate vaccines continued. In addition, crop varieties were submitted for release, 162 innovation platforms supported, and 110 innovations delivered to uptake pathways. The new crop varieties submitted for release had superior attributes to existing varieties in terms of yields, pest and disease resistance and adaptation to drought and market and consumer preferences.

**Market access and competitiveness of agricultural products in the domestic and international markets recorded poor performance.** Infrastructure such as roads remained incomplete under the Agriculture Cluster Development Project despite the project extensions. There were incidences of post-harvest losses among farmers due to lack of reliable markets, poor road network and inadequate quality control and certification. Works at the quality control laboratories remained incomplete partly due to delayed payment of contractors for their completed and certified works.

These notwithstanding other entities such as Uganda Coffee Development Authority (UCDA) and Cotton Development Organization(CDO) continued though minimally to promote priority agriculture products in the domestic and international markets including regulation activities to ensure adherence to quality standards.

**Roll out of the PDM was behind schedule. In relation to readiness for implementation at all levels of the LG was estimated at 75%:** On average, each Savings and Credit Cooperative Organization (SACCO) had received Ug shs 35 million<sup>1</sup> (35%) against the target of Ug shs 100 million. About 2 to 10 SACCOS in most parishes had either not received any funding or got partial disbursement due to challenges associated with misspecification of SACCO names and account numbers. None of the PDM SACCOS had extended credit to the qualifying PDM SACCO members as at 31<sup>st</sup> December 2022 as all the monitored local governments were yet to introduce the approved signatories to the commercial banks.

<sup>1</sup> The Ug shs 35 million is inclusive of the funds accessed in the previous Financial Year 2021/22



In addition, the training and eventual enrolment of members on to the Parish Development Model Management Information System (PDMMS); a precondition for the final access of funds by the qualifying PDM SACCO members was yet to commence. *Further inquiry from the Ministry of Information, Communication and Technology (MoICT) indicated that the ICT team awaited funding from Ministry of Finance, Planning and Economic Development (MFPED) to support the training and final roll out of the sixth Pillar of Parish Based Management Information System.*

**Although animal breeding, multiplication and distribution of livestock and poultry technologies was ongoing, the intervention performed poorly despite the high investment in infrastructure development.** The growth of animals on the farms was minimal and negative on most farms. Reduction in animal stock was associated with animal disposal; deaths due to disease outbreaks, old age, bites from stray animals, theft, and abortions. The reasons for the massive disposal of animals on the National Animal Genetic Resources Center and Data Bank (NAGRC&DB) farms were not recorded on most farms.

**There was low outreach of extension services to farmers and agro-based firms** in the local governments and borrowers of the Agricultural Credit Facility (ACF) due to under staffing, inadequate facilitation to carryout extension activities, harsh climatic conditions, lack of community access roads, and impassable roads in hard to reach areas.

**Access and use of water for production especially among small holder farmers was constrained** by incomplete irrigation schemes, inadequate capacity of contractors, project commencement without feasibility studies, high poverty levels that constrain timely co-payments for the Uganda Intergovernmental Fiscal Transfer (UgIFT) micro scale irrigation intervention that requires co-funding, and delayed procurement particularly under the MAAIF in the Department for Agriculture Infrastructure, Mechanization, and Water for Agriculture Production.

**Access to concessional long and medium term financing for agricultural infrastructure and capital investments under Uganda Development Corporation was low.** Agro-processing and value addition under the Uganda Development Corporation (UDC) poorly performed with majority of funds still lying idle on the UDC bank accounts mainly due delays in conclusion of valuations and final investment decision for institutions where government was to acquire shares. Allocation of funds to ventures which are not investment ready also explains the poor performance.

**Relatedly access to agriculture insurance** and knowledge about the government programme remains low and the modalities for accessing claims remains unclear to many farmers. Some beneficiaries noted that the agriculture insurance improved their welfare due to compensation, while others felt cheated mainly due to limited understanding of the operations of agriculture insurance.

Conversely, majority of the farmers engaged in other programmes of government such as the Agriculture Credit Facility (ACF) and Uganda Development Corporation among others did not know about the agriculture insurance, which is indicative of how ineffective the marketing of the intervention has been.

**There was gender disparity in provision and access to services in the Agro-Industrialization Programme.** For example, 67% males benefited from Agriculture Insurance, and 79% from the ACF. In addition, majority of extension workers in LGs were male (86.8%). There was limited access to inputs and enrollment on the Agricultural Cluster Development Project e-voucher system for the females, youth and persons with disabilities (PWDs).



## Overall challenges

1. Limited access to Water for Agriculture Production especially among the small holder farmers.
2. Inadequate staffing especially extension workers in the lower local governments.
3. Gender and equity disparity in access and use of agricultural services in the programme, with males, Central and Western regions respectively dominating their counterparts.
4. Limited infrastructure such as road network, ware houses, silos, markets among others to effectively and efficiently support proper post-harvest handling and resultant trade activities.
5. Limited visibility and uptake of government programmes partly due to poorly designed marketing strategy including ineffective use of the mass media and the government available air time across all information networks.

## Overall recommendations

1. The MAAIF and MWE and other Agro-industrialization Ministries, Departments and Agencies should fast-track implementation of water for production interventions through addressing the core binding constraints to access especially among the small holder farmers.
2. The MAAIF and LGs should prioritize recruitment and equipping of extension workers with transport and facilitation especially in the newly created administrative units (cities, districts and sub-counties).
3. Strengthen punitive measures for noncompliance to gender and equity commitments
4. The MFPED should strengthen budget analysis and prioritization in the Agro-Industrialization Programme to ensure that the backward and forward linkages along the agriculture value chain are funded to avoid wastages that result from lack of complimentary services such as markets, roads, silos among others.
5. The Office of the President in collaboration with the Office of the Prime Minister should institute and implement a policy to carry out mass media campaigns including using the allocated government air time available across all information networks to market and publicize government programmes.



# CHAPTER 1: INTRODUCTION

## 1.1 Background

The mission of the Ministry of Finance, Planning and Economic Development (MFPED) is, “*To formulate sound economic policies, maximize revenue mobilisation, and ensure efficient allocation and accountability for public resources so as to achieve the most rapid and sustainable economic growth and development.*”

The MFPED through its Budget Monitoring and Accountability Unit (BMAU) tracks implementation of programmes/projects by observing how values of different financial and physical indicators change over time against stated goals, indicators and targets (how things are working). The BMAU work is aligned to budget execution, accountability, service delivery, and implementation of the Domestic Revenue Mobilization Strategy (DRMS).

Starting FY2021/22, the BMAU is undertaking Programme-Based Monitoring to assess performance against targets and outcomes in the Programme Implementation Action Plans (PIAPs) of the third National Development Plan (NDPIII). Semi-annual field monitoring of government programmes and projects was undertaken to verify receipt and application of funds by the user entities and beneficiaries, the outputs and intermediate outcomes achieved, and level of gender and equity compliance in the budget execution processes.

The monitoring covered the following Programmes: Agro-Industrialization; Community Mobilization and Mindset Change; Digital Transformation; Human Capital Development; Innovation, Technology Development and Transfer; Integrated Transport Infrastructure and Services; Manufacturing; Mineral Development; Natural Resources, Environment, Climate Change, Land and Water Management; Public Sector Transformation; Sustainable Development of Petroleum Resources; and Sustainable Energy Development.

This semi-annual monitoring report presents findings from monitoring the Agro-Industrialization Programme for the budget execution period 1<sup>st</sup> July to 31<sup>st</sup> December 2022. Agro-industrialization is defined<sup>2</sup> to comprise three main areas: a) agro-processing, distribution, provision of farm inputs; and off farm activities; b) institutional and organizational coordination between agro-processing firms and farms; and c) management of changes in product composition, technology and sectoral and market structures.

## 1.2 Programme Goal and Objectives

The Agro-Industrialization Programme goal is to increase commercialization and competitiveness of agricultural production and agro-processing. The programme objectives are to: 1) Increase agricultural production and productivity; 2) Improve post-harvest handling and storage; 3) Improve agro-processing and value addition; 4) Increase market access and competitiveness of agricultural products in domestic and international markets; 5) Increase the mobilization and equitable access and utilization of agricultural finance; and 6) Strengthen the institutional coordination for improved service delivery.

<sup>2</sup> Reardon and Barrett (2000).



A major focus of budget execution in FY 2022/23 is to implement the Agricultural Value Chain Development Strategy (AVCDS) emphasizing the value chain approach of bringing together all the players at the levels of Enterprise Selection; Production and Productivity; Harvesting, Post-harvest Handling and Primary Processing, and Secondary Processing as well as Marketing. Interventions are aligned to the strategic export and food security commodities, namely: coffee, tea, textiles (cotton), maize, cassava, beans, Irish potatoes, sweet potatoes, millet, fish, cocoa poultry, horticulture, vegetable oil, bananas, beef cattle, dairy cattle, goats, macadamia, cashew nuts and hass avocado.

### 1.3 Sub-programmes

During FY 2022/23, the Agro-Industrialization Programme is implemented through five sub-programmes, namely<sup>3</sup>:

- i) Agricultural Production and Productivity
- ii) Storage, Agro-processing and Value Addition
- iii) Agricultural Market Access and Competitiveness
- iv) Enabling Environment and Strengthening Private Sector Institutional and Organization Capacity (**Agricultural Financing**)
- v) Institutional Strengthening and Coordination

### 1.4 Programme Outcomes

The key results to be achieved over the five-year period (FY 2020/21 to FY 2024/25<sup>4</sup>) are:

- i) Increased total export value of processed agricultural commodities; coffee, tea, fish, dairy, meat, and maize (and its products) from; US\$ 0.935 bn to US\$ 2.7 bn;
- ii) Reduced total value of imported cereals and cereal preparations, vegetable fats and oils, and sugar preparations from US\$ 931.1 million to US\$ 500 million;
- iii) Increased agricultural sector growth rate from 3.8 percent to 6.0 percent;
- iv) Increased labour productivity in the agro-industrial value chain (value added, US\$ per worker) from US\$ 2,212 to US\$ 3,114;
- v) Increased number of jobs created per annum in agro-industry along the value chain by 180,000;
- vi) Reduced percentage of households' dependent on subsistence agriculture as a main source of livelihood from 68.9 percent to 55 percent; and
- vii) Increased proportion of households that are food secure from 60 percent to 90 percent.

<sup>3</sup> The Votes that contribute to each of these sub-programmes are listed in the findings their respective sections.

<sup>4</sup> Third National Development Plan (NDPIII)



## CHAPTER 2: METHODOLOGY

### 2.1 Scope

The monitoring report is based on selected ongoing and multi-year projects and outputs in the Agro-Industrialisation Programme that were planned and funded during FY 2022/23 semi-annual duration (1<sup>st</sup> July to 31<sup>st</sup> December 2022). The programme outputs reviewed under each sub-programme, are detailed in **Annex 1**. A total of 51 (63%) outputs were monitored (**Table 2.1**). Thirty outputs were not assessed due to three key reasons: a) they were not planned and budgeted for implementation in 2022/23, b) the implementing agencies were not sampled for monitoring due to inadequate field time, c) lack of credible data.

**Table 2.1: Number of outputs monitored during FY 2022/23 Semi-Annual**

SN	Sub-programme	Total outputs in PIAP	No. of outputs in PIAP monitored
1	Agricultural Production and Productivity	36	29
2	Storage, Agro-processing and Value Addition	6	6
3	Agricultural Market Access and Competitiveness	15	9
4	Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity (Agricultural Financing)	5	4
5	Institutional Strengthening and Collaboration	19	3
	<b>Total Outputs</b>	<b>81</b>	<b>51</b>
	<b>% of Total Outputs</b>	<b>100%</b>	<b>63%</b>

The selection of outputs to monitor was based on the following criteria:

- 1) Significant contribution to the programme objectives and national priorities.
- 2) Level of investment, outputs that had large volume of funds allocated were prioritized.
- 3) Planned outputs in the annual work plans whose implementation commenced in the year of review, whether financed or not.
- 4) Multi-year investments or rolled over projects that were still under implementation in the current year.

### 2.2 Approach and Sampling Methods

Monitoring involved analysis and tracking of inputs, activities, processes and outputs as reviewed in Budget Speech 2022/23, the Programme Implementation Action Plan (PIAP), Ministerial Policy Statements (MPSs), and annual work plans, progress and performance reports of MDAs and Local Governments (LGs).

Both qualitative and quantitative methods were used in the monitoring exercise. Physical performance of outputs and intermediate outcomes were assessed through monitoring a range of indicators. Purposive sampling was used in selecting outputs from the PIAPs, MPS and progress reports of the respective Ministries, Departments, Agencies and Local Governments (MDALGs) for monitoring.



To aid mapping of PIAP outputs against annual planned targets stated in the Vote MPS and quarterly work plans, a multi-stage sampling was undertaken at four levels: i) Sub-programmes ii) Sub sub-programmes iii) Local governments, and iv) Project beneficiaries. The selection of districts and facilities considered regional representativeness.

## 2.3 Data Collection and Analysis

### Data collection

The MDAs and entities responsible for the realization of the agro-industrialization agenda were consulted and participated in provision of data: The Agriculture Credit Facility (ACF) - Ministry of Finance, Planning and Economic Development (MFPED)/Bank of Uganda (BoU), Cotton Development Organization (CDO), Dairy Development Authority (DDA), Local Governments (LGs) and Ministry of Agriculture, Animal Industry and Fisheries (MAAIF).

The others were: Uganda Development Corporation (UDC), Uganda Development Bank (UDB), Insurance Regulatory Authority of Uganda, Agro Consortium Ltd, Ministry of Water and Environment (MWE), National Agricultural Advisory Services (NAADS) Secretariat, National Animal Genetic Resource Centre and Data Bank (NAGRC&DB), National Agricultural Research Organization (NARO) and Uganda Coffee Development Authority (UCDA). **Annex 2** provides details of the LGs that were sampled.

The monitoring team employed both primary and secondary data collection methods. **Secondary data collection methods** included:

- i) Literature review from key policy documents including, MPS FY 2021/22; National and Programme Budget Framework Papers; PIAPs, (NDP III), quarterly progress reports and work plans for the respective implementing agencies, Quarterly Performance Reports, Budget Speech, Public Investment Plans, Approved Estimates of Revenue and Expenditure, project reports, strategic plans, policy documents, Aide Memoires and Evaluation Reports for selected programmes/projects.
- ii) Review and analysis of data from the Integrated Financial Management System (IFMS); Programme Budgeting System (PBS); Quarterly Performance Reports and Bank statements from some implementing agencies.

**Primary data collection methods** on the other hand included;

- i) Consultations and key informant interviews with institutional heads, project/intervention managers, household heads, and service beneficiaries at various implementation levels. focused group discussions (FGDs) were also held in instances of group beneficiaries.
- ii) Field visits to various districts, for primary data collection, observation and photography.
- iii) Call-backs in some cases were made to triangulate information.

## 2.4 Data Analysis

The data was analyzed using both qualitative and quantitative approaches. Qualitative data was examined and classified in terms of constructs, themes or patterns to explain events among the beneficiaries (interpretation analysis) and reflective analysis where the monitoring teams provided



an objective interpretation of the field events. Quantitative data on the other hand was analyzed using advanced excel tools that aided interpretation.

Comparative analyses were done using percentages, averages, and cross tabulations of the outputs/interventions; intermediate outcome indicators and the overall scores. Performance of outputs/interventions and intermediate outcome indicators was rated in percentages according to level of achievement against the annual targets. The sub-programme score was determined as the weighted aggregate of the average percentage ratings for the output/intermediate outcomes in the ratio of 65%:35% respectively.

The overall programme performance is an average of individual sub-programme scores assessed. The performance of the programme and sub-programme was rated on the basis of the criterion in **Table 2.2**. Based on the rating assigned, a BMAU colour coded system was used to alert the policy makers and implementers on whether the interventions were achieved or had very good performance (Green), or good performance (yellow), fair performance (light gold) and poor performance (Red) to aid decision making.

**Table 2.2: Assessment guide to measure performance in FY 2022/23 Semi-annual**

Score	Performance Rating	Comment
90% and above	Green	Very Good (Achieved at least 90% of outputs and outcomes)
70%-89%	Yellow	Good (Achieved at least 70% of outputs and outcomes)
50%- 69%	Light Gold	Fair (Achieved at least 50% of outputs and outcomes)
49% and below	Red	Poor (Achieved below 50% of outputs and outcomes)

*Source: Author's Compilation*

### **Ethical considerations**

Entry meetings were undertaken with the Permanent Secretaries/and Accounting Officers or delegated officers upon commencement of the monitoring exercises. Consent was sought from all respondents including programme or project beneficiaries. All information obtained during the budget monitoring exercise was treated with a high degree of confidentiality and only used in policy making and improving service delivery.

### **Risk analysis**

An attempt was made to qualitatively assess the risks to output delivery, issues that could possibly result into financial loss and poor service delivery when the various projects are implemented.

### **2.5 Limitations**

- i) Failure to secure entry meetings at the beginning of the monitoring period for Uganda Development Bank (UDB) due to non-availability of the Accounting Officer and senior staff. Field data was not collected for this sub- sub programme.
- ii) Thirty (37%) outputs were not budgeted for and hence were not monitored.

### **2.6 Structure of the Report**

The report is structured into four chapters. These are: Introduction, Methodology, Programme Performance, Conclusion and Recommendations respectively.



## CHAPTER 3: PROGRAMME PERFORMANCE

### 3.1 Overall Performance

The performance of the Agro-Industrialization Programme was fair at 58% attainment of semi-annual targets. There was mixed performance with two out of the five sub-programme falling below the 50% mark. The interventions related to the Parish Development Model attained a dismal 27% of the set targets.

The poor performance under the PDM related interventions were occasioned by inadequate funding received by the SACCOs, b) guidelines that deterred spending until further guidance, c) partial completion of trigger processes especially enterprise selection and farmer selection, d) disjointed implementation of the pillars with two out of the seven a head of the others, e) lack of clear instructions and changing guidelines from different MDAs. In some districts, officers misunderstood the guidelines and spent funds in areas that were not authorized, leading to arrest and detention.

Access to agriculture markets both locally and internationally remained constrained by poor road network amidst delayed completion of road networks under the different spending agencies and poor post-harvest handling resulting into high levels of aflatoxins in the agriculture produce.

The sub-programmes that exhibited good performance were led by the Agricultural Production and Productivity at 75%, followed by Storage, Agro-Processing and Value Addition at 74% and Agricultural Financing/Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity at 73%. The good performance was attributed in part to the availability of external financing and other activities such as agriculture research and technology generation whose execution depended less on the development budget which under performed.

In relation to outcome attainment, the agro-industrialisation attained on average 80% of the targets. Those that recorded under performance included; mainly % change in yield of priority agricultural commodities partly due to soil exhaustion, fake fertilizers on the market.

In addition, the proportion of household's dependent on subsistence agriculture as a main source of livelihood (%) was at 39 percent of households (3.5 million) that continued in the subsistence economy compared to 61 percent (5.4 million) in the non-subsistence economy in 2019/20. Of the 3.5 million households in the subsistence economy, 62 percent were engaged mainly in subsistence agriculture. (Table 3.1)

**Table 3.1: Agro-Industrialisation Programme Outcome Performance as 31<sup>st</sup> December 2022**

Outcome objective	Indicators	FY2022/23 target	Actual	% Achievement
Improved post-harvest handling and storage	Post-harvest losses for priority commodities (%)	25%	18.2%	72
	Storage capacity (MT)	1,250,000.00	1,230,000.00	98
Increased agro-processing and value addition	Export value of priority agricultural commodities (USD Billion)	2.3	1.96	85



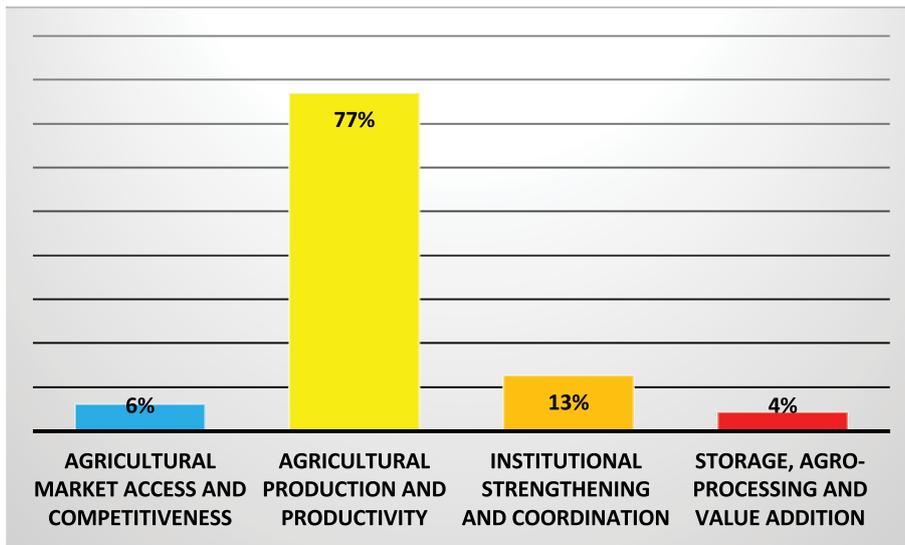
Outcome objective	Indicators	FY2022/23 target	Actual	% Achievement
Increased production and productivity	Agricultural Real GDP growth rate (%)	5.6%	4.3%	77
	Export value of priority agricultural commodities (USD Billion) - Total	1.818	1.269	70
	% change in production volumes in priority agricultural commodities	30%	26.1%	87
	% change in yield of priority agricultural commodities	19.5%	6.7%	34
	% of water for production facilities that are functional	88.7%	88.0%	100
	Area under formal irrigation (ha)	20,200	22,797	100
	Cumulative water for production storage capacity (Mcm)	57.5%	52.5%	91
	% of food secure households	84.1%	71.2%	85
	Proportion of households dependent on subsistence agriculture as a main source of livelihood (%)	60%	39%	65
Mobilization, equitable access and utilization of Agricultural Finance increased	Proportion of farmers that access agricultural finance	12.8	10	78
	Share of agricultural financing to total financing	23%	12.2%	53
Institutional coordination for improved service delivery strengthened	Existence of inclusive institutionalized mechanism for mutual accountability and peer review, %	100%	100%	100
	Level of satisfaction with service delivery in agro-industry (%)	58%	61%	100
<b>Mean performance</b>				<b>80</b>

*Source: Field Findings*

### 3.1.1 Financial performance

The approved budget for the Agro-Industrialization Programme for FY2022/23 is Ug shs 1.450 trillion of which Ug shs 563bn (38%) was released and Ug shs 431bn spent as at 31<sup>st</sup> December 2022.

Agriculture Production and Productivity Sub-programme dominated all the other sub-programmes in terms of percent share of the agro-industrialization approved budget. The storage, agro-processing and value addition took the least share. **(Figure 3.1)**. This implies that GoU focus remains more on the lower stages of the agricultural value chain with higher stages left to the private sector and the resultant constraints of market failure.

**Figure 3.1: Sub-programme share of the of Agro-Industrialization budget (%)**

The afore-discussed financial performance however excluded the funds allocated through other programmes<sup>5</sup> but targeting agro-industrialization (**Table 3.1**). It is vital to observe that the Agriculture Financing Sub-programme as identified in the third National Development Plan (NDP-III) was dropped and most of its implementation plans captured through other programmes and sub-programmes during the planning and budgeting for FY2022/23

Consequently, the approved budget for the Agro-Industrialization Programme inclusive of direct funding to agro-industrialization but through other programmes is Ug shs 2.9 trillion of Ug shs 1.043 trillion was released (36%) and 73% of the release spent as at 31<sup>st</sup> December, 2022. (**Table 3.2**)

**Table 3.2: Financial performance of the Agro-Industrialization Programme as at 31<sup>st</sup> December, 2022 (Ug shs, Million)**

Sub-programme	Approved Budget	Release	Expenditure	% share of Budget
Agricultural Market Access and Competitiveness	88,512	31,864	23,261	3
Agricultural Production and Productivity	1,116,177	401,823	293,331	38
Enabling Environment	1,254,509	451,623	329,685	43
Industrial and Technological Development (UDC)	38,722	13,940	10,176	1
Institutional Strengthening and Coordination	183,001	65,880	48,092	6
Storage, Agro-Processing and Value Addition	62,120	22,363	16,325	2
Strengthening Private Sector Institutional and Organizational Capacity	156,642	56,391	41,165	5
<b>Grand totals</b>	<b>2,899,685</b>	<b>1,043,886</b>	<b>762,037</b>	<b>100</b>

**Source: IFMS data, Approved estimates of Revenue and Expenditure Volume I & II**

<sup>5</sup> Private Sector Development under its sub-programmes of Enabling Environment, Strengthening Private Sector Institutional and Organizational Capacity where funds for capitalization of Uganda Development Bank, Funding of Micro-Finance Support Centre, Agricultural Insurance, Funding of the Agriculture Credit Facility were allocated; and Manufacturing Programme under its sub-programme of Industrial and Technological Development (UDC) where funds for capitalization of the Uganda Development Corporation to support among others agro-processing were allocated.



## 3.2 Agricultural Production and Productivity Sub-programme

### 3.2.1 Introduction

The Government planned to enhance agricultural production and productivity by strengthening agricultural research and technology development; extension services; input markets and distribution systems; access and use of water for production, agricultural mechanization and digital technologies; farmer organizations and cooperatives; systems for management of pests, vectors and disease; promote sustainable land and environmental management practices and improving skills and competencies of the labor force. Findings on the PIAP outputs that were monitored<sup>6</sup> within different projects are presented hereafter:

#### Performance

The overall performance of the Agricultural Production and Productivity Sub-programme was good at 75% attainment of targets. The good performance of the sub-programme was mainly driven by agricultural research. Details of performance is subsequently presented. *Refer to Annex 3 for details of sub-programme and intervention, and outputs performance.)*

### 3.2.2 Demand driven agriculture technologies developed

#### Introduction

The Government aimed at generating and promoting improved technologies that were tolerant to pests and diseases and climatic changes, with high value and a short gestation period for use by farmers to enhance agricultural production and productivity. The key implementing agencies for this intervention are the National Animal Genetic Resource Centre and Data Bank (NAGRC&DB) and the National Agricultural Research Organization (NARO).

#### The planned sub-outputs for FY2022/23 were:

- i) Crop resources technologies developed;
- ii) Fisheries resources technologies generated
- iii) Fisheries resources infrastructure maintained
- iv) Livestock resources technologies generated
- v) Livestock resources infrastructure maintained
- vi) Semi-arid technologies developed
- vii) Coffee research conducted (No. Rooted stem cuttings generated)
- viii) Value added research and technology products and innovations

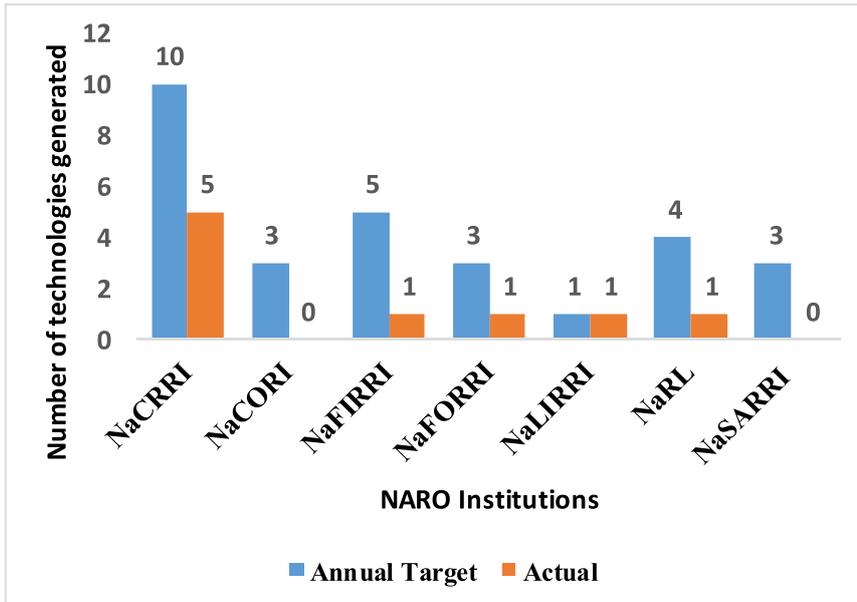
#### Performance

Overall, the performance of NARO in technology generation for all commodities was low as 09 out of the annual target of 29 technologies were developed by 31<sup>st</sup> December, 2022. The highest performer was the National Crops Resources Research Institute (NaCRRI) that is mainly involved in developing crop resources technologies and the worst performers were the National Semi-Arid Resources Research Institute (NaSARRI) and the National Coffee Research Institute (NaCORI), involved in cotton and coffee technology generation, respectively (**Figure 3.2**).

<sup>6</sup> As listed in Annex 1 and Annex 2.



**Figure 3.2: Number of technologies generated by NARO by 31<sup>st</sup> December 2022**



Source: Computed from NARO statistics

*Note: NAFIRRI – National Fisheries Resources Research Institute; NAFORRI – National Forestry Resources Research Institute; NALIRRI – National Livestock Resources Research Institute; NaRL -National Agricultural Research Laboratories*

**The key challenges were:** Inadequate funding to undertake and conclude research and technology generation activities; failure to collect genetic resources from field due to lack of/dilapidated vehicles; adverse climatic conditions; land encroachment; inadequate technical staff and lack of appropriate research infrastructure and facilities.

**i) Crop resources technologies developed**

Several research trails were established/maintained on station and off station by the NARO Institutes for the key strategic commodities as shown in Table 3.3. The new crop varieties developed and submitted for release for public use had superior attributes to existing varieties in terms of yields, pest and disease resistance and adaptation to drought and market and consumer preferences. Some trials performed poorly due to adverse weather conditions and inadequate funds to maintain the fields.

**Table 3.3: Selected crop technologies developed by NARO by 31<sup>st</sup> December 2022**

Institution	Technologies	Achievements
Ngetta ZARDI	Groundnuts, Beans and Soya Bean	Trials established in FY 2021/22 (2 acres’ groundnuts, 2 acres beans and 2 acres soya) were harvested and post-harvest processing conducted in readiness for dissemination of seeds to farmers.
Abi ZARDI	Root crops	2 newly released root crop varieties were introduced to uptake pathways in the West Nile region.
	Horticulture	2,500 mango seedlings, 5,000 citrus seedlings and 1,250 Avocado seedlings were disseminated to farmers.



Institution	Technologies	Achievements
National Semi Arid Resources Research Institute (NASSRI)	Cotton	Work continued for on station trials to evaluate 16 cotton lines constituting seven varieties; Two farmer preferred cotton lines with industrial attributes were identified for promotion,
National Crops Resources Research Institute (NACRRI)	Beans	Variety release applications documents for two bean varieties submitted to MAAIF, NPT trials established for 5 promising lines and data collected. Four (4) promising bean lines identified using tricot evaluations; Five (5) bio fortified bean varieties including NAROBAN 1,2,3,6 & 7 were promoted, scaled out and marketed in Karamoja and Yumbe; Use of two drought tolerant varieties (NAROBAN 6 & 7), thresher and planter were promoted in Yumbe (Bidi bidi refugee community) and Karamoja to enable increased productivity.; 10 acres for breeder and 18 acres for foundation seed production managed.
	Rice	One hybrid rice variety WDR 73 was released in a sitting that took place in December 2022.
	Cassava Sweet potatoes	222 clones (160 cassavas and 62 sweet potato) established under TRICOT, AYT, UYT, OFTS in NaCRRI, NaS222 clones (160 cassavas and 62 sweet potato clones) established under TRICOT, AYT, UYT, OFTS in NaCRRI, NaSARRI, Kiige, NgeZARDI, BulZARDI, RweZARDI, Kigumba, Oyam, Arua and Terego 626 Tricots, & 75 OTFs, 40 FGs, 22 Demos, being operated, and 79.6 acres of improved varieties of cassava (62.6 acres) and sweet potatoes (17 acres) established and being maintained (cassava varieties: UG120193, UG120156, Mkumba & NAROCASS1); (Sweet potato varieties: NKB 216, NKB 135, NASPOT 8 and NAROSPOT 1)
	Horticulture	20 tomato varieties (local and imported) were planted; 2,500 fruit seedlings produced and maintained against the annual targeted 10,000; 12 tomato varieties with high yield and tolerance to disease were released to increase vegetable productivity in Uganda 6,156 beneficiaries trained in vegetables and fruit farming in Kasese, Pakwach, Oyam, Kween and Butaleja districts.
	Maize	In partnership with AVCP, Cumulatively, NaCRRI produced 14.7 MT of maize foundation seed ,1.7 Mt of maize breeder seed of Longe 714, WEMA 2115, WEMA 3106, UH5355, Longe 104, CML 312, CML 395, CML 547, CML 202, CKDHL02050, CML444, CML442, Longe 5, and Longe 4. NaCRRI produced 0.2MT rice breeder seed from the established nurseries of single panicle planted in 4 ROW plots for 10 released varieties of NamChe-1, NamChe-2, NamChe-4, NamChe-5, NaChe-6, NARORICE-1, NARORICE-2,NARORICE-3 and NARORICE-4 ,NERICA-6,NERICA-4,NERICA-10 and WITA-9.and planted a total of 9 entries of rice Nucleus seed varieties planted in 2 rows covering 0.1acre at Namulonge.



Institution	Technologies	Achievements
Rwebitaba ZARDI	Tea	Evaluation of purple tea was due to commence on station for suitability before rolling the technology to the different agro-ecological zones to ascertain performance. Tea oil product prototype produced. Collection and profiling of tea clone was undertaken and this revealed two tea clones for high green tea production. 5 tea clones characterized for biochemical attributes for the best green and black tea. 4,000 clonal plantlets of selected tea clones were multiplied against the targeted 5000 as at December 2022. Ninety-four (94) Tea accessions genotyped using DART technology for diversity and genomic selection purposes. Data sets on individual selection basing on (Yield, recovery from prune, drought).
National Laboratories Research (NARL)	Biotechnology	Tissue culture of planting materials for bamboo, medical plants, ginger, lemon grass, sugar cane, turmeric and medical plants such as Warbugia Ugandensis (COVID treatment plant) were raised to increase their rate of production.
Kachwekano ZARDI	Irish potato	Two seed potato varieties were submitted to the Variety Release Committee for approval; 763,640 potato mini tubers and 40 tonnes of potato basic seed were produced; A total of 2.5 hectares of potato were planted for seed production; 2040 apple rootstock were potted and grafted; and advanced innovations of growing rooted cuttings in screen houses (aeroponics) to multiply the min-tubers for commercial production stalled due to a disease epidemic

*Source: Field Findings; NARO Reports*

## ii) Fisheries resources technologies generated and fisheries resources infrastructure maintained

By 31<sup>st</sup> December 2022, processes were still underway to procure brood stock for producing mirror cap fingerlings for distributing to farmers at the NAFIRRI. A fish laboratory, aquarium facility and cage research facility were maintained and operationalized. Production and upscale multiplication of new high value aquaculture fish species (Labeo and Barbus) for improved technology adoption were ongoing. A total of 100 (40%) fish farmers of the targeted 250 were trained in Best Aquaculture Practices (BMPs) of pond management, harvesting, postharvest and value addition. Two integrated rice fish demonstrations were established and stocked with 2,500 fish seed.

Applied research and training in fish feed, seed and commercial production was undertaken under the multi-year Promoting Environmentally Sustainable Commercial Aquaculture (PESCA) Project (December 2019-December 2021) at NaFIRRI-Kajjansi. Project implementation stalled during the COVID pandemic and end date was shifted to December 2022. Due to the slow progress, the project was granted a further extension to June 2023.

Following the renovation of ponds and tanks needed to maintain the parental stock and procurement of the specialised auto-mobile for transporting live fish, the first lot of 10,000 tilapia fish and 10,000 African catfish brood stocks were collected from Lakes Albert, Kyoga and Victoria and selective breeding commenced. High Aquaculture Potential Zones were mapped and designs for conducting pond based experiments were developed.



The farmers' challenge of lack of good feeds on the market was addressed through generation of 20 test fish feed formulations. Fish feeding experiments were ongoing to determine the influence on fish growth and performance.

The key challenges to fisheries research were: a) Inadequate technical staff/scientists especially for emerging areas such as value addition and business incubation; b) lack of specialised vehicles for transporting live fish from the wild for experimentation; c) limited aquaculture research and technology development due to inadequate budget allocation and late release of funds d) lack of sustainability plan and funds for the PESCA interventions.

### iii) Livestock resources technologies generated and livestock resources infrastructure maintained

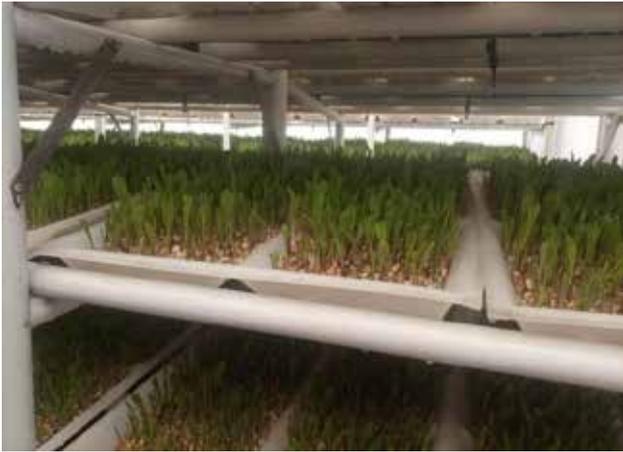
Technology and infrastructure development for livestock resources research was ongoing at National Livestock Resources Research Institute (NALIRRI) – Nakyeesa and NALIRRI Maruzi farms. Large scale forage seed production, rehabilitation of paddocks, generation of foundation seed, beef and goat research and anti-tick evaluations were ongoing at NALIRRI Maruzi Farm. Table 3.4 shows some of the livestock technologies that were under development

**Table 3.4: Selected livestock technologies generated by NARO by 31<sup>st</sup> December 2022**

Technologies	Achievements
Anti-tick and Foot and Mouth Vaccines	The Anti-tick vaccines were ready and under trial for one year in five locations at NARO Institutions and Prison Farms. Testing of the Foot and Mouth Disease (FMD) and African Swine Fever candidate vaccines continued.
Forage	2 tons of Chloris seed (100 acres) harvested; and 7.5tons of dairy feed supplement (20 acres) produced.
Recycled manure products	Commercial biogas plant was operational; Various products were made and were on sale: dry manure, briquettes, liquid soap, organic pesticides.
Aeroponics	The Aeroponics facility was completed and was operational with maize under incubation for livestock supplementary feeding.
Livestock	A herd of 200 Ankole cattle, 20 Zebu cattle and three exotic bulls were undergoing trials and conservation; 28 Karahari goats were imported and had multiplied to 40 animals.
Forage	100 acres of chloris gayana and 70 acres of calliadra were established to generate seed for the farmers.

*Source: Field Findings; NARO Reports*

Key infrastructure that was established and maintained included: The Anti-Tick Research and Vaccine Production Facility for which the importation of equipment was in advanced stages; the zero waste management system that recycled waste from the cow shed and produced recycled manure by-products; the Alfsafe facility that was awaiting equipment and furniture for operationalization; hay barns and paddock fencing. The main challenge was inadequate technical staff to operate all the new facilities and hi-tech machinery and lack of funds for maintaining/repairing the equipment sustainably.



**Aeropics facility completed and maize grown for supplementary animal feeds at NALIRRI in Wakiso District**



**Imported Karahari goats under multiplication at MARUZI NALIRRI**



**L-R: Alfsafe facility completed, awaiting installation of equipment; Zero-Waste Management System at NALIRRI in Wakiso District**



#### **iv) Semi-arid technologies developed**

By 31<sup>st</sup> December 2022, research was ongoing on semi-arid technologies at the National Semi-Arid Resources Research Institute (NaSARRI), mainly funded by off budget projects. A total of Ug shs 2.551bn was available for spending on off budget interventions of which Ug shs 1.782bn (70%) was spent. Technology development was undertaken on cow peas, sorghum, oil seeds, finger millet, ground nuts, maize, climate resilience, nutrition security and ecosystem rehabilitation and conservation. Data recording on cotton varieties at the infested fields and in the screen house for wilts and bacterial blight diseases was ongoing.

Five cotton lines resilient to climatic change with high yield potential identified to support the textile industry and related cotton value chains were under identification. Livestock breeding experimental activities were conducted focusing on animal traction, Livestock Nutrition and training of farmers and students. For example, some breeding activities focused on the improvement of indigenous Zebu and Ankole cattle for animal traction.

#### **v) Coffee research conducted (No. Rooted stem cuttings generated)**

Several research activities were ongoing at the National Coffee Research Institute (NACORI), focused on generating coffee and cocoa cuttings of elite varieties and production of value added products (**Table 3.5**). The multi-purpose laboratory for undertaking coffee research was completed but not yet operational.

**Table 3.5: Selected coffee technologies developed by NARO by 31<sup>st</sup> December 2022**

Technologies	Achievements
Coffee	<p>Preference was given to 65 acres of coffee and cocoa maintained and 2400kg of kiboko coffee harvested from the fields. Experiments for incidence and damage of coffee pests and diseases were ongoing. As at 6<sup>th</sup> March 2023, the NARO issued a public notice inviting industry players interested in commercialization of coffee based facial and body scrub.</p> <p>Three candidate Arabica varieties that are high yielding, short in height, easy to harvest and with superior cup quality were at Distinctiveness Uniformity and stability technology development stage with the trials in Kabale, Bugusege, Buginyanya NARO stations.</p> <p>A total of 32,602 stem cuttings of 8 promising candidate Arabica initiated for rooting. 30 F1 hybrids generated; 300 rooted clones of candidate Arabica coffee weaned; 4 composite crosses made to combine CLR and CBD resistance.</p> <ul style="list-style-type: none"> <li>• 254 liquid cultures so far initiated and 200 RITAs of KR9 &amp; KR4 initiated.</li> <li>• 407,634 cuttings of CWD-r materials initiated in bins against the targeted 420,000; of which 61,000 were weaned, 155,384 cuttings availed to farmers while 1,400 cuttings used to gap-fill mother garden.</li> </ul> <p>Soluble coffee prototype not yet done due to limited infrastructure and have only done extractability co-efficient of the varieties.</p>
Cocoa	<ul style="list-style-type: none"> <li>• Ten (10) best clones were collected and were under germplasm maintenance for identification and multiplication.</li> <li>• 500 cocoa trees were profiles for further technology development.</li> <li>• Elite coca varieties were imported from the International Cocoa Germplasm Data Base for research, multiplication.</li> </ul>
Value added products	<p>Research was ongoing and different stages of completion to develop coffee and cocoa value added products – yoghurt, cakes, cosmetics. 2 samples of coffee lotion and 2 samples of cream prepared and sent to UNBS for microbial and chemical testing.</p>

*Source: Field Findings; NARO Reports*



**Completed Multi-Purpose Laboratory at NACORI in Mukono District awaiting equipping**

#### vi) Value added research and technology products and innovations

A total of 15 value added products were at different stages of development by NARO entities with most of them being refined to meet commercial standards. These products were under development for eight strategic commodities: coffee, cocoa, milk, maize, rice, soybean, pumpkin and tea.

- i) Research was ongoing to develop coffee and cocoa value added products and was at different stages of completion for instance:
- Cocoa body lotion was approved by the Uganda National Bureau of Standards (UNBS).
  - Coffee yoghurt was at field testing. With its prebiotic properties under research to confirm their usefulness to humans.



- Coffee facial scrub was ready for commercialization and a request for Expression of interest to commercialize was put up in the press upon completion of registration with the Uganda Registration Services Bureau (URSB) including patenting and issuance of the certificate of analysis from Uganda National Bureau of Standards (UNBS).
  - Antifungal cream research and profiling was ongoing and at field testing development stage pending clinical trials with the National Drug Authority to identify willing participants who have health insurance.
- ii) The other seven (7) products were undergoing market testing for determining their commercial potential. These included composite bean flour that was market tested by Equator Commercial Production Company, and AuroNutro maize product which was undergoing market testing by Banotu Uganda Limited. Other near end products for market testing included high protein concentrate from soybean and puff-extruded bean snack.
- iii) A number of value-added tea prototypes of ready-to-drink bottled healthy teas and cosmetics were formulated. These included skin caring soaps; lotions and quality Cut Tear and Curl (CTC) black teas which were at the level of packaging, labeling and branding for commercialization.
- iv) Value addition nutraceutical products (milk products), which are safe and stable milk based with anti-ulcer, anti-diabetes and anti-cancer properties were under development. A protocol for extraction of anti-diabetic milk-based nutraceutical product was developed. Fortified yoghurt formulations were developed
- v) As at 31<sup>st</sup> December 2022, NARO under the appropriate technology issued 50 Units of 2 wheel tractors (walking tractors) to Acholi sub-region and Adjumani District by August 2022 with funding from the PRELNOR project. Six (6) units of NARO-CAS-CHIP-1 cassava chippers delivered to business hire service providers in Abim District.



**Safe fish smoking kiln that was being scaled up and promoted among fishing communities at NARL Kawanda**

- vi) Achieved 80% in terms of commercialization of NARO PAH-safe fish smoking kiln for controlling polycyclic Aromatic hydrocarbons (PAH) in smoked fish and improving market competitiveness of Uganda's smoked fish.

- vii) Achieved 40% in terms of developing wet coffee processing technologies compared to the targeted 60%. Specifically, second prototype of Food grade motorised coffee pulper, first prototype of hybrid solar drier for coffee, fruits and vegetables, and high energy content briquette formulae from crop residues and forest wastes done.
- viii) Achieved 45% in terms of developing implements for improving labour productivity of small holder farmers. Specifically, animal drawn weeder and power tiller weeders were each at second prototype, while the low horse power hand held motorized multi-crop weeder was at first prototype generation stage.



## Challenges

- i) Inadequate funding to undertake research and technology generation activities comprehensively as planned.
- ii) Poor performance of experimental plots due to adverse weather and high prevalence of pests and diseases.
- iii) Disproportionate deliberate efforts to towards soluble coffee research demonstrated by lack requisite infrastructure at the National Coffee Resources Research Institute this specific research.

### 3.2.3 Research-extension-farmer linkages developed and strengthened

#### Introduction

The Government aimed to strengthen research extension farmer linkages to enhance technology dissemination and uptake by farmers and agricultural production and productivity. Plans included establishment of Public Private Partnerships (PPPs) and District Adaptive Research Support Teams (DARSTs) for jointly convening researchers, extension workers and farmers to have shared knowledge about existing technologies. Special focus was on crop technology promotional activities by MAAIF, NARO and NAGRC&DB through the Food and Seed Strategic intervention that focused on expanded production of food, seed and feed technologies as a method of strengthening the research-farmer-extension linkages.

Planned outputs:

- a) Partnerships for technology promotion and adoption of innovations executed.
- b) Crop seed for food and seed for feed intervention implemented by MAAIF, NARO and NAGRC&DB,

#### Performance

**Field data in all monitored districts indicated weak linkages between research, extension and farmers and low adoption and production of improved technologies by farmers and NARO/ NAGRC&DB** due to a number of factors namely: limited formation of functional PPPs and DARSTs; poor access to improved technologies by extension workers at district and sub-county level; low staffing levels in production departments at all levels; inadequate transport means and equipment to undertake extension work effectively and few demonstrations set up on station for farmer field schools (FFS).

Technology promotion was poor - only 33% of the PPPs and DARSTs that were supposed to be the method of strengthening linkages were established by the NARO entities by 30<sup>th</sup> December 2022. As a consequence, only 11% of the improved technologies and innovations that were available were adopted at farm level (**Table 3.6**).

**Table 3.6: Performance of partnerships for technology promotion and adoption of innovations by 30<sup>th</sup> December 2022**

Institution	No. of functional PPPs/DARSTs established for research extension farmer linkages and technology promotion		No. of improved technologies and innovations adopted	
	Annual Target	Actual	Annual Target	Actual
Abi ZARDI	6	3	3	0
Buginyanya ZARDI	2	0	4	1
Bulindi ZARDI	2	0	9	2
Kachwekano ZARDI	0	0	7	0
Mbarara ZARDI	0	0	7	1
Mukono ZARDI	5	2	2	0
Nabuin ZARDI	3	1	14	1
NACRRI	12	4	19	1
NACORI	0	0	3	0
NAFIRRI	3	1	3	0
NAFORRI	2	1	2	0
NALIRRI	12	5	36	5
NARL	4	3	4	2
NARO Secretariat	14	7	0	0
NASARRI	3	0	3	0
Ngetta ZARDI	1	0	3	1
Rwebitaba ZARDI	18	2	6	0
Total	87	29	125	14
% of Total		<b>33.33</b>		<b>11.2</b>

Source: Computations from NARO data; Field findings

The progress in crop seed technology production at NARO (26.50%) and NAGRC&DB (25.25%) was poor - Table 3.7 and Table 3.8, indicative of weak research-extension-farmer linkages. The key constraints identified were: delayed disbursement of funds and improved technologies to implementing agencies; poor coordination, information flow and guidelines from MAAIF; high costs of tractorization and mechanization; heavy rains delaying bush clearing; fake agro-inputs, pest and disease epidemics; wild game destroying crops and lack of harvesting, post-harvest handling and storage facilities.

**Table 3.7: Performance of crop seed technology production by NARO as at 31<sup>st</sup> January 2023**

Institute/Location	Commodity	Acres approved	Acres Planted
NaCRRI- Namulonge	Maize	100	124
	Beans	100	61
NaCRRI-Kiige	Maize	900	128
	Sorghum	200	0
NHL-Kigumba	Maize	850	536
	Soybean	300	136
NASARRI-Serere	Sorghum	400	205
NaLIRRI -Maruzi	Maize	3,000	0
Nwoya	Soybean	800	544
	Sorghum	700	0



Institute/Location	Commodity	Acres approved	Acres Planted
Mbarara ZARDI	Maize	300	0
	Beans	200	112.6
	Soya bean	100	79.5
Ngetta ZARDI	Maize	400	61
	Soybean	100	104
	Beans	60	30
Bulindi ZARDI	Maize	140	48
	Beans	70	45
	Soybean	140	64
Abi ZARDI	Maize	50	16.5
	Beans	50	53.5
	Sorghum	50	0
	Soya bean	50	0
Nabuini ZARDI	Sorghum	400	15
	Beans	100	0
Mukono ZARDI	Soybean	50	38
Rwebitaba ZARDI	Maize	80	21
	Beans	80	20
	Soybean	80	20
Buginyanya-Iklue	Maize	100	70
	Beans	50	28.2
<b>Total</b>		<b>10,000</b>	<b>2,560</b>
<b>Summary of crop technology acreage produced/promoted</b>			
	Maize	5,920	1,005
	Beans	710	350
	soybean	1,620	986
	Sorghum	1,750	220
	<b>TOTAL</b>	<b>10,000</b>	<b>2,560</b>
	<b>%acreage produced</b>		<b>25.60%</b>

Source: Computations from NARO Data; Field Findings

**Table 3.8: Performance of Crop Seed Technology Production by NAGRC&DB as at 20<sup>th</sup> January 2023**

Institute	Commodity	Acres Approved (No)	Acres Planted (No)
Aswa Ranch	Soya bean, maize	17,920	1920
Maruzi Ranch	Maize	1900	450
Kasolwe Stock Farm	Maize	620	650
Lusenke Stock Farm	Maize	1900	645
Ruhengyere Field Station	Maize	620	640
Sanga Field Station	Maize	320	160
Nshaara Ranch	Maize	3200	1283
Rubona Stock Farm	Maize	320	227
Gwot Apwoy Ranch	Maize	3200	1600
<b>Total</b>		<b>30,000</b>	<b>7,575</b>
<b>% acreage produced</b>			<b>25.25%</b>

Source: Computations from NAGRC&DB Data; Field Findings



Sample of the harvested NARO Beans planted under the food and feed intervention at NaCRRI Namulonge

For example, at **Ngetta ZARDI**, less acreage (15.25% maize and 50% beans) was planted against target because the seeds were delivered late when land had already been re-allocated to other uses. There was a risk of loss of viability of the harvested seeds due to poor post-harvest handling and storage.

**Abi ZARDI:** By 19<sup>th</sup> January 2023, the crop was ready for harvesting but the farm lacked funds to implement this activity. Yields were expected to be lower by 30% because good agronomic practices were not implemented, given the abrupt nature of the intervention. There was lack of clarity on use of the produce after harvest.

**GOT APWOYO Ranch:** 1,600 acres of maize were planted. An estimated 20% of the crop was destroyed by drought, elephants and baboons. About 50% of the remaining mature crop was harvested while the rest remained in the field due to lack of harvesting and processing equipment and storage facility.

### 3.2.4 Animal breeding stock multiplied and distributed to farmers' countrywide

#### Introduction

The GoU aims to strengthen breeding and multiplication of the livestock stocks, and enhance conservation and utilization of indigenous animal genetic resources in the country. The NAGRC&DB introduced the community breeding and outreach programme to enhance dissemination of artificial insemination services to farmers. The main livestock types under multiplication on the farms were cattle, goats, poultry and piggery.

The planned outputs included:

- i) Livestock breeding, preservation and multiplication implemented
- ii) Goat Breeding programme implemented

#### Performance

##### i). Livestock breeding, preservation and multiplication implemented

The livestock breeding and multiplication performance was poor, with a 0.83% reduction in the cattle herd and a 4% growth in the goat herd on selected NAGRC&DB farms by 31<sup>st</sup> December 2022 (**Tables 3.9 and Table 3.10**). Livestock multiplication was retarded by inadequate access to improved animal breeds for breeding at NAGRC&DB firms and by farmers; land wrangles and encroachment; inadequate pastures and water for production; donations for socio-corporate responsibility and for festive seasons and deaths due to pests and diseases and unrecorded reasons.



**Table 3.9: Progress in multiplication of cattle breeding stock at selected NAGRC&DB farms by 31<sup>st</sup> December 2022**

Farm	Opening Stock 1 <sup>st</sup> July 2022	Closing Stock 31 <sup>st</sup> December 2022	Net change	Remark/Challenges
<b>Aswa Ranch</b> Pader district	1250	1390	140	<b>Positive herd growth:</b> due to bush clearing of 1.5 square miles and increased births. Key challenges were: land under contention due to poor boundary demarcation. The directive given to encroachers (over 500 families) to vacate the land by December 2022 was not enforced. The ranch lacked machinery, tools, equipment and tractors to open up the farm to enhance animal productivity.
<b>Aswa Zebu</b> Pader district	1003	1003	0	<b>New farm started in May 2021.</b> The programme focuses on conservation of Zebu cattle. The main challenge was lack of key infrastructure including roads, water, housing and animal handling structure.
<b>Kasolwe Stock Farm</b> Kamuli District	157	166	6	<b>Modest growth of herd:</b> Inadequate technical staff for the breeding program; Lack of EASHZ breeding bulls and Kasolwe brown bucks for the conservation mandate; shortage of farm machinery and equipment for pasture development; six (06) animals were slaughtered.
<b>Lusenke AnGRC</b> Kayunga District	295	280	-15	<b>Negative herd growth:</b> Reduced herd due to disposal, external transfer.
<b>Maruzi Ranch</b> Apac District	986	1,028**	42	<b>Good herd growth:</b> Six superior bulls were procured for natural breeding. But 11 animal deaths were recorded. The breeding programme was constrained by a shortage of four breeding bulls and inadequate tick control facilities. Vaccinations against FMD, Anthrax and Black quarter were not done.
National Enterprise Corporation (NEC) Farm Katonga	631	661	30	<b>Positive herd growth.</b> This was partly due to restocking of the 79 bulls under Meat Export Support Services Project (MESSP) in November 2022. The minimal positive growth was partly as a result of disposal of 69 cows due to clostridial infection.
<b>Njeru Stock Farm</b> Buikwe District	189	222	33	<b>Modest growth</b> mainly due to births. The farm generated 66,661 litres of milk 50% of which was used by staff and 50% either for calves or sales. <b>This was a challenge as non-tax revenue was lost as the funds generated were used at source to meet operational expenses.</b> The animal breeding program was performing poorly due to lack of pastures and water associated with land encroachment. Staff performance was poor and absenteeism was high due to the threats from senior government officials that had encroached on the land. There were also 12 animal sales and donations and 12 deaths that deterred herd growth.
<b>Nshaara Ranch</b> Kiruhura District	3920	3816	-104	<b>Negative herd growth:</b> Reduced herd due to disposal, external transfer.



Farm	Opening Stock 1 <sup>st</sup> July 2022	Closing Stock 31 <sup>st</sup> December 2022	Net change	Remark/Challenges
<b>Rubona Stock Farm</b> Bunyangabo District	451	431	-20	<b>Negative herd growth:</b> Reduced herd due to disposal, death occasioned by snake bites and diseases.
<b>Ruhengyere Field Station</b> Kiruhura District	405	431	26	<b>Positive herd growth.</b> Despite the net positive growth, the performance remained poor as majority of additions were transferred from other farms.
<b>Sanga Field Station</b> Kiruhura District	361	346	-15	<b>Negative herd growth:</b> reduced herd due to disposal. The disposal was accelerated by the limited space at the field station having experienced massive encroachment (1.5 square miles of the 2.5 square miles of the field station) and recent planting of nappier and maize under the seed for feed and food intervention.
Total	5,957	5,907	-50	Negative growth overall of 0.83%.

Source: Field Findings

\*\* As of 1<sup>st</sup> December 2022

**Table 3.10: Progress in multiplication of goat breeding stock at selected NAGRC&DB farms by 31<sup>st</sup> December 2022**

Farm	Opening Stock 1 <sup>st</sup> July 2022	Closing Stock 31 <sup>st</sup> December 2022	Net change	Reasons/key challenges
<b>Kasolwe Stock Farm</b> <i>Kamuli District</i>	53	66	13	Modest positive growth: Three animals died and nine goats were slaughtered. The causes of death were unknown.
<b>Maruzi Ranch</b> <i>Apac District</i>	493	531	38	<i>Modest positive growth.</i>
<b>Nshaara Ranch</b> <i>Kiruhura District</i>	305	342	37	<i>Positive growth was attributed to births.</i>
<b>Rubona Stock Farm</b> <i>Bunyangabo District</i>	88	84	4	<i>Positive growth was attributed to births.</i>
<b>Ruhengyere Field Station</b> <i>Kiruhura District</i>	1224	1297	73	<i>Positive growth was attributed to births.</i>
<b>Sanga Field Station</b> <i>Kiruhura District</i>	674	658	-16	<b>Negative growth:</b> Reduction was due to disposal. The disposal was accelerated by the limited space at the field station having experienced massive encroachment (1.5 square miles of the 2.5 square miles of the field station) and recent planting of Napier and maize under the seed for feed and food intervention.
Total	2,291	2,381	98	<b>Positive growth overall of 4%</b>

Source: Field Findings

\*\* As of 1<sup>st</sup> December 2022



## Key challenges

- i) High mortality of animals, especially poultry due to diseases and unspecified reasons for other animals. These were exacerbated by congestion as housing space was inadequate on many farms.
- ii) Inadequate pasture and feeds for animals due to drought and inadequate machinery and equipment for pasture.
- iii) Loss of animals due to slaughter for festive seasons and unspecified reasons.

## Recommendations

- i). The NAGR&DB should establish functional irrigational systems at the farms.
- ii). The Office of the Auditor General undertake an audit to establish the causes of animal mortality on NAGRC&DB farms.

### ii) Goat Breeding Programme implemented

Ssembuguya Estates (U) Ltd is implementing a Goat Roll-Out Project (GRP) and Production Scheme for Export under the guidance of Ministry of Agriculture, Animal Industry and Fisheries, together with the participating districts of Wakiso, Gomba, Sembabule, Mubende, Kyankwanzi, Nakaseke and Nakasongola. Following the Presidential directive, the MAAIF is acting as the executing agency.

As at 31<sup>st</sup> December, 2022, the estate purchased 2,902 goats but distributed 1,257 (43.31%) goats to 25 farmers/groups in the districts of Gomba, Mubende, Nakaseke, Nakasongola, and Kyankwanzi.

In the monitored districts, only 34.79% of the farmers/farmer groups had received the goats (**Table 3.11**). Less goats were distributed to farmers/groups in the wake of the severe outbreak of Peste des petits ruminants (PPR) a viral disease which caused uncontrollable goat mortalities. Most of the goats procured succumbed to PPR despite the control measures that were established. *Thus the urgent need to regularly provide PPR vaccines in the districts predominantly undertaking livestock husbandry.*

**Table 3.11: Selected beneficiaries that received goats from the Goat Breeding Programme as of 31<sup>st</sup> December 2022**

Farmer/Group name	Location	Target**	Number of goats received	Remarks
Malinzi Geoffrey	Kakiri Sub-county, Wakiso District	5	4 female dairy goats	PPR infections
Rev Father Denis Subugwawo	Namayumba Town Council Wakiso District	5	5 female dairy goats	Goats were fewer than they expected.
Drapari Godwin	Luguzi Parish, Wakiso District	5	5 female dairy goats	This farmer had no goat shelter, goats were being kept in a classroom in a nearby school.
Ndunda Enoch	Kigando Sub-county, Mubende District	150	50 female goats	He was given the 50 goats at free charge but was tasked to purchase a Boer goat at Ug shs 1.5m. His main challenge was the parent stock distrusted was of a poor quality and some were infected PPR.



Farmer/Group name	Location	Target**	Number of goats received	Remarks
Muwungano Farmers Development Group	Kasambya Sub-county Mubende district	150	50 female goats	They were given the 50 goats at free charge but was tasked to purchase a Boer goat at ugx 1.5m. Their main challenge was PPR
Ambamu Richard	Mitima sub county Ssembabule district	150	50 female goats	He was happy with the project. His main concern is that they were promised 150 goats but were only given 50 goats
John Mugumya	Mitima sub county Ssembabule district	150	50 female goats	He had applied for 150 female goats but due to PPR he was only given 50 goats.
<b>Total</b>		<b>615</b>	<b>214 (34.79%)</b>	

Source; Field findings \*\* To be provided in a phased manner. What was received by the farmers was in the first phase of the project



Goat beneficiaries (left-right) Muwungano Farmers Development group in Kasambya sub county Mubende district and John Mugumya in Mitima sub county Ssembabule district

### 3.2.5 Animal breeding, production, administrative units and research facilities constructed and equipped

#### Introduction

The Government aimed at enhanced agricultural production and productivity through expanded construction, rehabilitation and equipping of research, breeding and administrative infrastructure. This output was implemented by NARO and NAGRC&DB.

The planned outputs included:

- i) Infrastructure for Animal breeding, production and administrative units established
- ii) Research facilities and Administrative infrastructure established

#### Animal breeding, production and administrative units

The NAGRC&DB targeted to construct/rehabilitate/establish and equip hatchery units, cattle, goat and piggery sheds, storage facilities, administration blocks and structures, hostels, poultry structures for accommodating birds as well as for incubation. The performance in establishment of animal breeding and administrative infrastructure was good (85.18%) as presented in **Table 3.12**.



**Table 3.12: Progress in development of animal breeding and administrative infrastructure at selected NAGRC&DB farms by 31<sup>st</sup> December 2022**

Farm	Infrastructure	Completion Progress (%)	Remark
<b>Maruzi Ranch</b> <i>Apac District</i>	Goat structures	50	<i>Works stalled as contractor abandoned the site due to financial constraints</i>
	Junior staff quarters	70	
	Senior staff quarters	75	
	Animal nutrition facilities renovated (acres of land cleared)	50	<i>1,280 acres of bush were cleared of which 150 acres were ploughed and planted with good quality pasture, out of the planned 2,560 acres. Fuel and funds were inadequate.</i>
<b>Kasolwe Stock farm</b> <i>Kamuli District</i>	Hostel with 48 self-contained rooms	45	
	Farmer Learning centre	80	<i>Implementation is ongoing for the first phase that focused on construction of the ground floor.</i>
	Hatchery	100	<i>Unstable power to operate the facility; a standby generator was needed.</i>
	150 capacity cow shade	100	
	Hay barn	100	
	Milking parlor and calf pen	100	
	Grain storage facility	100	
	9.5km of road constructed	100	
Piggery unit, goat unit and poultry unit	100	<i>Lack of clean water to fully operationalize the facilities</i>	
<b>Aswa Ranch</b> <i>Pader District</i>	Honey processing plant	100	<i>Not equipped and hence non-operational</i>
	Spray race	98	
	Dip tank	95	<i>Delayed disbursement of funds</i>
	<b>Average</b>	<b>85.18</b>	<i>Good performance though these are rolled over projects that have experienced time overruns. The new projects did not commence.</i>

**Source: Field Findings**

### Key challenges

- i) Stalled infrastructure development for the planned interventions of FY 2022/23 as funds were diverted to completing infrastructures started in the previous year(s).
- ii) Slow project execution due to over centralized planning and budget management at NAGRC&DB Headquarters; the farm managers had little involvement in the prioritization and supervision of the funded activities.

### Recommendations

- i) The NAGRC&DB and MFPED should improve multi-year planning and budgeting for infrastructure development.
- ii) The NAGRC&DB should decentralize planning and budget to the farms. The farm managers should be empowered to become accounting officers for the centres they are responsible for.



## Research facilities and administrative infrastructure

As at 31<sup>st</sup> December 2022, the physical progress for research and administrative infrastructure averaged at 69%. Key to note is that completed the infrastructure lacked equipment to serve the intended purposes. The detailed performance of the projects at the different stations is presented in **Table 3.13**.

**Table 3.13: Performance of research and administrative infrastructure established at NARO Institutes and ZARDIs by 31<sup>st</sup> December 2022**

Category of civil works	Infrastructure established	Status	Beneficiary institution	Status/Remark
<b>Residential</b>	Residential staff houses and gravel access roads	80%	National Livestock and Resources Research Institute (NALIRRI)	<i>Eight units were under construction.</i>
	Junior quarters	75%	MARUZI NALIRRI	<i>Eight quarters were awaiting painting, fencing and put in the doors and windows.</i>
	Abi guest house/ hostel	0%	Abi ZARDI	<i>Funds were repurposed/diverted to completing the administrative block</i>
	Junior staff house and Manager staff house	60%	Aswa Ranch	<i>Stalled as the contractor abandoned works in September 2020. The contractor had no financial guarantee after he failed to pay off his loans; the submitted certificates of completion had not been cleared</i>
<b>Non- Residential</b>	Multi-purpose laboratory	0%	Abi ZARDI	<i>Funds were repurposed/diverted to completion of the administration block whose cost had gone.</i>
	Office block, laboratory renovated	80%	Abi ZARDI	<i>The cost of the building shot up by 120%. About 80% of the funds disbursed for three facilities (office block, hostel and laboratory) were spent on this facility. The project had a time lag of 8 months by the monitoring in February – the original completion date May 2022 was extended twice to April 2023. Attributed to delays in approvals in redesigning and restructuring of Bills of Quantities (BOQs) to take into consideration the high inflation.</i>
	Zero waste management system	100%	NALIRRI	<i>The animal manure waste recycling system was in operation.</i>
	Equipment for Alfasafe facility procured	10%	NALIRRI	<i>At bid evaluation stage.</i>



Category of civil works	Infrastructure established	Status	Beneficiary institution	Status/Remark
	Multi-purpose vaccine facility	82.5%	NALIRRI	<i>Importation of equipment for the facility was ongoing; some equipment was delivered and was in storage; the process of test running the equipment for six months was initiated Several spares were needed for the facility but there was no maintenance budget. Lack of in-house technical expertise to operate and maintain the machines. Most installations were made by international expatriates</i>
	Perimeter wall, incinerator and bio security gate	10%	NALIRRI	<i>At bid evaluation stage.</i>
	Research bull stud	80%	NALIRRI	
	Aeroponics facility for supplementary feeds	100%	NALIRRI	<i>Crops such as maize are grown for 7 days and mixed with other feeds. Cow milk yield had almost doubled</i>
	Kitchen and canteen	90%	Maruzi Ranch, NALIRRI	
	Goat house	60%	Maruzi Ranch, NALIRRI	
	Multi-purpose laboratory	100%	NACORI	<i>The building is not yet handed over and not in use due to lack of equipment.</i>
	Administrative block and honey processing plant	100%	Aswa Ranch	<i>In defects liability period; the Honey processing plant was not yet equipped, it was used as warehouse for the produce under the Feed and Seed Project.</i>
<b>Civil Works – Structures</b>	Paddock fencing	40%	Maruzi Ranch, NALIRRI	<i>Eight out of 27 planned paddocks were fully established; others were partially constructed.</i>
	Water reticulation	40%	Maruzi Ranch, NALIRRI	
	Road network constructed	100%	Maruzi Ranch, NALIRRI	<i>Eight roads were leveled and stabilized</i>
	Irrigation Water System upgraded		National Crops Resources Research Institute (NACCRI)	
	External civil works	100%	Rwebitaba ZARDI	
	Laboratory	100%		<i>Completed but unusable due to lack of equipment.</i>
	Conference facility	100%		



Category of civil works	Infrastructure established	Status	Beneficiary institution	Status/Remark
	Administration block	93%	National Agricultural Research Laboratories (NARL) Namalere	<i>Substantially complete. The pending works include external works in a few sections, final electrical and Private Automatic Branch Exchange installations and equipping</i>
<b>Average</b>		<b>69</b>	<b>All</b>	<b>Fair performance</b>

Source: Field Findings



**Administration Block for NARL- NARO substantially completed in Namalere, Wakiso District**

### Key challenges

- Lack of maintenance plans and budgets for the infrastructure that was established.
- Inadequate capacity in NARO to manage and operate all the new facilities and equipment and more especially those installed by international expatriates.

### Recommendations

- NARO and MAAIF should prioritize funding for maintenance of established infrastructure.
- NARO should prioritize more funding to training machine operators who should be involved in equipment installation alongside the international experts. The Government should obligate the suppliers of machinery and equipment to train and skill Ugandan operators.

## 3.2.6 Innovative Extension models service delivery models scaled up

### Introduction

This PIAP output involves coordination of extension services including the Human resources that offer the services.

### The planned outputs for the FY2022/23 included:

- Innovative extension models promoted
- Extension services provided

#### i) Innovative extension models promoted

The innovative extension models (model farmer and farmer field school) were promoted in Western and Eastern Uganda. MAAIF conducted sensitization meetings to upscale E-Extension to intensify supervision and improvement on the quality of extension service delivery in Northern Uganda and updated the agriculture extension staff database from district up to sub-county level.



In addition, the Agriculture Cluster Development Project (ACDP) supported and maintained the E-extension system which was rolled out and deployed in 21 out of the 57 participating districts in clusters 3,4, 5, 9 and 10 for use by farmers to access e-advisories. Field training of users including DPOs, DAOs, AO, FO, ICT, VET was also undertaken as at 31<sup>st</sup> December 2022.

UCDA conducted 451 farmer trainings benefitting 12,899 farmers in regions of Rwenzori, Western, South western, Greater Masaka, Eastern, Elgon and Northern. The emphasis was on the black coffee twig borer (BCTB) management, coffee planting and farm establishment, coffee rehabilitation, fertilizer use, soil and water conservation, pests and disease control.

Similarly, UCDA, regional coffee extension officers (RCEO) conducted specialized trainings in Good Agricultural Practices (GAPs) in pest and disease management, rehabilitation, and sustainable land management in collaboration with stakeholders across the country. A total of 451 farmer trainings were conducted benefitting 12,899 farmers across all regions as shown in **figure 3.4** below. This activity was however disrupted by the coffee seedlings distribution program in the Rwenzori region, especially in districts of Bushenyi, Buhweju, Mitooma, Kitagwenda and Rubanda.

In addition, UCDA conducted innovative extension models service delivery models scaled up whereby quality assurance consultant for development of the App was procured and reviewed the system requirements specification (SRS) and design documents for workflows enabling the vendor to commence on the development stage.

## ii) Extension services provided

Overall, there was low outreach of extension services to farmers and this was even worse under the LG sectoral conditional grant due to under staffing; inadequate facilitation to carryout extension activities; lack of community access roads; and impassable roads in hard to reach areas. For example, most farming households in Kasese DLG experienced limited access to advisory services, this mostly in the sub-counties of Ahandilro, Kitholu, Mbunga, and Kyondo due to bad roads that restricted outreach to these remote areas.

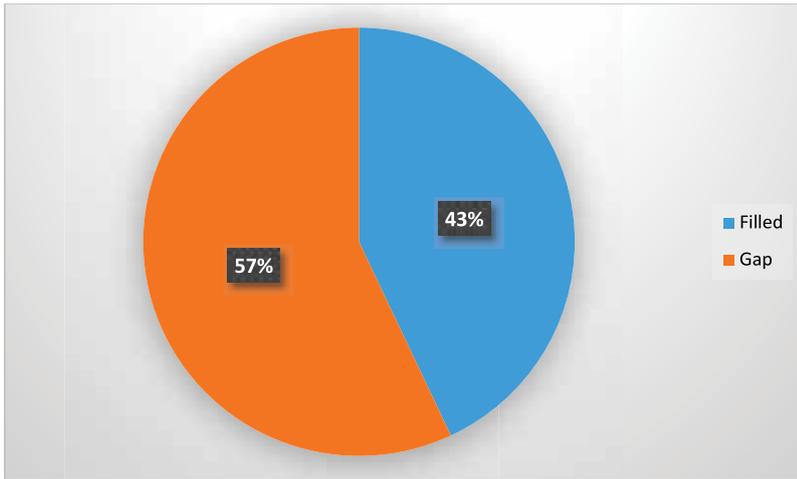
Staffing of extension workers at national level was lower at 4,031(43.5%) compared to the approved staffing norms of 9,275. The current extension worker farmer ratio is (1:1,800), one extension worker to 1,800 households was higher than the recommended ratio (1:500) one extension worker to 500 households in Uganda where there are 8.933 million households. The gap between extension workers and farmers has remained wide as shown in the **Figure 3.3**.

For instance, Kalangala DLG, had 35 extension workers which was very insufficient since it's an island district. The farmer-to-extension staff ratio was poor with the resultant limited access to advisory services by most farming households. Some lower local governments required use of boats for access. These included; Mazinga Sub-county, Bubeke Sub-county, Kyuso Sub-county and Bufumbira Sub-county among others.

Similarly, UCDA has a high coffee farmer to extension staff ratio in the South Western region (63.2%) leading to limited contact and dissemination of coffee specific knowledge and information. For instance, one extension worker coordinates more than two districts in the same region, this limits the coverage of the intended farmers.



**Figure 3.3: Proportion of Extension workers' staffing levels (%)**



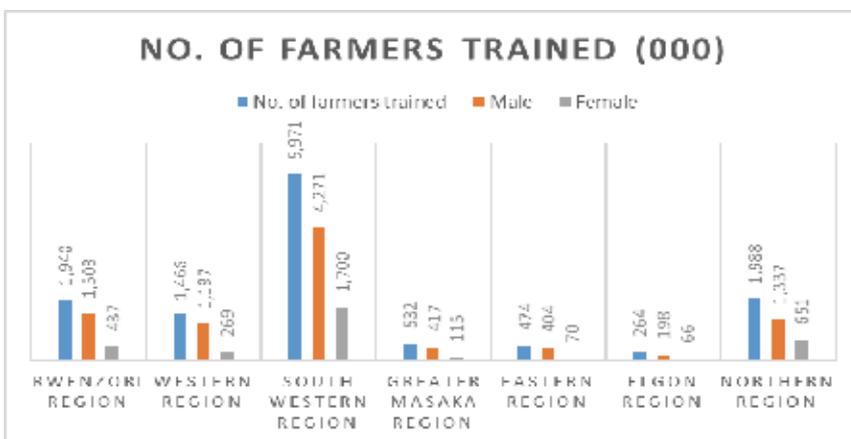
Source: MAAIF

Similarly, CDO in the West Nile just like other regions, had inadequate extension workers, since staff was reduced from 52 to 32. This reduction was attributed to inadequate funds, this greatly affected information dissemination to farmers. Districts greatly affected are Madi-okollo, Koboko, Yumbe and Zombo.

Nonetheless some of the farmers among the districts visited (**Annex 2**) confirmed receipt of extension services including training in the appropriate agronomic practices, post-harvest handling among others. The model farmers in the various sub counties provided an avenue for knowledge transfer to the other farmers.

Similarly, UCDA, regional coffee extension officers (RCEO) conducted specialized trainings in GAPS in pest and disease management, rehabilitation, and sustainable land management in collaboration with stakeholders across the country. A total of 451 farmer trainings were conducted benefitting 12,899 farmers across all regions as shown in **figure 3.4**. This activity in the Rwenzori region, especially in districts of Bushenyi, Buhweju, Mitooma, Kitagwenda and Rubanda among others, farmer training was greatly interrupted by the coffee seedlings distribution program in the quarter.

**Figure 3.4: Gender disaggregation of farmers trained by UCDA in GAPS by region as at 31<sup>st</sup> December 2022**



Source: UCDA, Field Findings



The National Oil Palm Project (NOPP) also supported capacity building of mentors to aid the implementation of household mentoring activities including provision of extension services in Kalangala and Buvuma districts. As at 31<sup>st</sup> December 2022, a total 1,300 households accessed mentorship including learning on the best agronomic practices. (Table 3.14)

**Table 3.14: Number of Mentors and Mentees in Mayuge Buvuma and Kalangala districts**

District	Sub-County	No. Mentors	No. Mentees		Total Mentee Households
			1st batch	2nd batch	
Buvuma	Nairambi	13	44	86	130
	Buvuma TC	9	34	56	90
	Buwooya	9	34	56	90
	Busamizi	9	24	66	90
Kalangala	Bujumba	7	15	55	70
	Kalangala	6	17	36	53
	Mugoye	34	61	276	337
	Bunyama	2	5	25	30
Mayuge	Busakira	10	97	3	100
	Malongo	10	99	1	100
	Kityerera	10	95	5	100
	Baitambogwe	10	0	100	100
<b>TOTAL</b>		<b>128</b>	<b>487</b>	<b>873</b>	<b>1,300</b>

*Source: Field Findings*

Similarly, under alternative economic opportunities/livelihood, the NOPP trained 434 beneficiaries on poultry, piggery, cassava and banana enterprises. Furthermore, 61 youths were skilled in various trades and 126 youths were organized into 5 labour gangs in Kalangala and Buvuma districts.

Through CDO, a total of 208 Uganda Ginners and Cotton Exporters Association Ltd (UGCEA) Field Extension Workers in 72 districts in Busoga, Bukedi, Bugisu, Teso, Lango, Acholi, West Nile, Mid-West & Central and Kazinga Channel Regions were trained on cotton production technologies.

In addition, 173 LG extension workers in 34 districts were trained on cotton production. Of the 208 UGCEA Field Extension Workers, 12 were deployed in the 10 hard-to-reach districts (i.e. Amuria, Katakwi, Abim, Napak, Koboko, Karenga, Adjumani, Moyo, Yumbe, Obongi). The number of local government extension workers trained was however less than the target because the officers were involved in many competing activities.

### 3.2.7 Irrigation schemes constructed

#### Introduction

The Government planned to construct/develop and where applicable operationalize and manage sustainably large scale irrigation systems, small scale irrigation systems and solar powered small scale irrigation systems to increase access to water for production for large and small scale farmers. The aim is to enhance production and productivity of key strategic commodities. This output is implemented by Ministry of Water and Environment (MWE), MAAIF and the District Local Governments (DLGs)



### The planned outputs for FY2022/23 included:

- i) Large and medium scale irrigation schemes completed
- ii) Valley tanks constructed by MAAIF and MWE
- iii) Earth dams for livestock watering, and multipurpose use constructed
- iv) Solar powered small-scale irrigation systems developed

### Performance

#### i) Large and medium scale irrigation schemes

Expansion of irrigation schemes in Uganda was generally on course except for Acomai Irrigation Scheme that was behind schedule. Production in all schemes was increasing although not on a sustainable basis due to challenges of intermittent access to water and lack of improved inputs and technologies and other complementary services such as extension and post-harvest handling facilities and skills. The schemes lacked records on the production trends.

#### Acomai Irrigation Scheme

The construction of Acomai Irrigation Scheme in Bukedea and Bulambuli districts was behind schedule and unlikely to be completed by the contractual end date of October 2023. By 30<sup>th</sup> December 2022, the physical progress was 19% against a time progress of 58%. Completed works included the secondary drainage system, filling of secondary canal 2 and canal 3, excavation of drainages and two major roads. Two completion certificates issued by the contractor amounting to Ug shs 6.207 bn (8.63% of contract value) were paid while one certificate (Ug shs 3.747bn) was pending payment. Farmers in the scheme catchment area were not accessing water as civil works were still ongoing.



L-R: Ongoing excavation of head works and the secondary canal under construction at Acomai irrigation scheme

Four key challenges affected project implementation: i) Delayed compensation of Project Affected Persons (PAPs) which resulted into intermittent stopping of project activities. A total of 136 PAPs were yet to be paid and 58 cases were referred to the Grievance Resolution Mechanism, ii) Late processing by the Uganda Revenue Authority (URA) of requests for tax exemptions for materials that were difficult to get on the market; For example, a request for exemption on 2,500 rolls of BRC mesh for canal lining awaited for processing for four months iii) Delayed clearance and payment of certificates of completion by MAAIF by about five months iv) Heavy floods that brought works to a standstill.

#### Ngenge Irrigation Scheme

Ngenge Irrigation Scheme in Ngenge Sub-county, Kween District was under use by 1,052 farmers occupying 2,175 acres. Maize (60%) was the main crop grown, others being rice, vegetables and



horticultural crops. The maize productivity increased from 500kg per acre to 1,500kg per acre after access to irrigation services. Similarly, the unmilled rice productivity rose from 1,500kg per acre before irrigation to 25,00kg per acre after access to irrigation services. However, farmers were faced with challenges of lack of affordable fertilizers, pest and disease control, and poor post-harvest handling for the increased produce.

The functionality of the scheme was low estimated at an average of 50%, affected by lack of water especially during the dry seasons, more than 80 acres were flooded as the dykes had broken and about 200 acres could not access water as they were not levelled.

The design of the irrigation facility did not fully meet the needs of farmers as the reservoirs and night storage capacity were inadequate. Farmers upstream tapped the bulk leaving less water for the producers in the scheme area. It is recommended that the night storage capacity is increased by an additional 500,000 cubic metres from the current 363,258 cubic metres.

Effective use of the scheme was constrained by weak governance structures and lack of funds for maintaining the infrastructure. For example, many canals were silted and carried much less water to the farms. Over 200 acres for rice farmers were not in use as they were not levelled and thus not accessing water. The Irrigation Water User Association lacked funds to maintain the scheme. Only 20 (1.9%) out of the 1,052 farmers in the scheme paid water user fees (Ug shs 20,000 per acre per year), the rest refusing to pay due to lack of water.

### Poor access by farmers to water for production in Ngenge Irrigation Scheme

“I have 5.5acres of land in Ngenge Irrigation Scheme in Kween District, divided into two plots of 3 acres and 2.5 acres, respectively. The 3-acre plot is planted with watermelons. I abandoned the second plot because the soils were not levelled and water does not reach the crops. My challenges are the limited knowledge of good agronomic services for growing watermelon and lack of markets. I have heard about a cooperative in our scheme but I do not know their role, that is why I am not their member. I was asked to pay Ug shs 100,000 per acre per year for maintaining the irrigation system. How can I pay that money when 2.5 acres are not levelled and I don't have access to water to expand production?”

*Mr. Chemutai Godfrey, Atyai Village, Sosho Parish, Ngenge Sub-county, Kween District*



**L-R: Silted canals and canals without water for five months in a year at Ngenge Irrigation Scheme in Kween District**



## Doho II Irrigation Scheme

Located in Wanghale Village, Kangalaba Parish, Himutu Sub-county, Butaleja District was operational with 2,884 farmers occupying 2,781 acres of land. The management structures in the scheme were reformed to improve water governance. The farmers were organised into 24 blocks and 64 Farmer Field Schools (FFS), each with an average of 30 members, to regulate the water flow. Each block had an irrigation Water User Committee. The Irrigation Water User Association (IWUA) focused on water management and recruitment of technical staff. However, the IWUA Irrigation System Operators had not received their salaries from the Ministry of Water and Environment (MWE). The FFS were not functional due to lack of agronomists and materials to set up demonstration sites.

The scheme functionality was estimated at 75%, as 25% of the farm land could not be serviced with water as it was on high elevation and unevenly levelled while other sections were flooded. Farmers affected by this challenge failed to raise the Ug shs 500,000 per acre required to level the fields. With the irrigation, farmer yields improved from 700kg per acre to 1,400kg per acre. The yields remained low as only 10% of the farmers used improved seed varieties and fertilisers which were highly priced.

**Rwengaju Irrigation Scheme** was completed by Dott Services and handed over to MWE on 8<sup>th</sup> February 2023 upon expiry of the Defects Liability Period, although some sections in the catchment area were not accessing water for production and some leakages on the distribution lines. Specifically, Rwebitaba Zonal Agriculture Research and Development Institute located in Kyembogo Village, Rwengaju Parish, Rwengajju Model Sub-county in Kabalore District was not receiving water from the scheme. In addition, the contract for the Irrigation Systems Operator (ISO) expired in May 2022 and had not been renewed as at 9<sup>th</sup> February 2023 which was irregular and compromised effectiveness, efficiency and the zeal of the ISO staff who continued to receive half their pay due to limited cash flows.

As at 9<sup>th</sup> February 2023, a total of 350 farmers were connected to the scheme excluding the illegal connections against the initial target of 100 farmers. The legal connections were required to pay Ug shs 6,000 as service charge and Ug shs 730 per unit consumed. The beneficiaries noted that the increased access to water for production supported commercial agriculture and diversification, ability to farm all year round due to reduced reliance on direct rain in season, reduced distance to the water source.

*Mr. David Baguma of Kyakakere Cell, Bwabya Parish, Rwengaju Sub-county for instance diversified into livestock, horticulture, pasture growth. Expanded from subsistence to commercial growing of pineapples. Another farmer Mr. Vicent Asiimwe a 50-year-old noted that “we were worse off before receiving this water. I had to ferry water on the bicycle as my children are at school.”*

In relation to supporting farmers to store and bulk, cold rooms were established at Rwengaju Irrigation Scheme. These were however not utilized as farmers were yet to be fully organized to start collective bulking.



## Key challenges

- Limited reliability of water for production especially during the dry season.
- Vandalism and pipe breakages
- Untimely payment of water bills
- The households use the water for domestic purposes and not for production purposes making it harder to pay

## Wadelai Irrigation Scheme in Packwach District

The works contractor is Coil Construction Company Ltd, supervised by BEC Engineers. The construction contract period was 23<sup>rd</sup> November 2018 to 23<sup>rd</sup> November 2020. This was extended to 23<sup>rd</sup> November 2021. Due to delays in land acquisition and Resettlement Action Plan (RAP). As at 16<sup>th</sup> January 2023, the construction of Wadelai Irrigation Scheme was ongoing, but behind schedule at 86% physical progress, and 83% financial progress. The slow progress was attributed to delayed conclusion of the RAP and limited capacity of the contractor.



Casting a section of the main canal in Ragem, Packwach District

The substantially completed works included: head works, scheme buildings, earth dam, main canal, and secondary canal (1). Pending works included: secondary canals (4&5), equipment (motorcycles, computers, tools), and sanitation facilities among others.

## Tochi Irrigation Scheme in Oyam District

The construction of the irrigation scheme was completed in FY 2021/22, and it began operation. However, the scheme developed challenges of flooding in farmers' plots. An assessment was done which determined that there was inadequate water flow along River Tochi.



Dredging of River Tochi in Oyam District

Thus a contract was awarded to Ambitious Construction Company Ltd to undertake dredging/widening of the river bank. As at 18<sup>th</sup> January 2023, the works were ongoing at 24% physical progress.

## Recommendation

The MAAIF and MWE should prioritise funding for maintenance of irrigation schemes and expanding water reservoirs in areas prone to drought and water stress.

### i) Valley tanks constructed by MAAIF

As at 31<sup>st</sup> December 2022, the targeted valley tanks were constructed. MAAIF constructed the 34 valley tanks each with capacity ranging from 10,000m<sup>3</sup> to 20,000m<sup>3</sup> in the water-stricken districts of Sembabule, Amolatar, Kyenjojo, Kumi, and Bukedea. To increase access to water for livestock production and ultimately control movement of animals. Completed construction of Aleles Valley Tank in Katakwi District. This has increased cumulative water for production storage capacity



by 65,000,000 liters. Commenced rehabilitation of three (03) existing communal valley tanks in Napak, Kotido and Karenga Districts respectively in Karamoja Sub-region using MWE equipment units (20% progress). A total of 30 valley tanks were constructed in the western, Eastern and Northern sub-region in an effort to improve stability through availing water for livestock.

Eight (8) valley tanks in the districts of Ntungamo, Ntoroko, Kyotera, Kamwenge, Karenga, Kotido, Abim and Amudat using equipment was ongoing. Overall cumulative progress was estimated at 35%.

Under the MWE, two valley tanks of Aleresi in Katakwi District (60,000m<sup>3</sup> capacity), and Kagango in Isingiro District (120,000m<sup>3</sup> capacity) were visited. Aleresi VT at 95% physical progress, was substantially completed, and functional. Kagango VT was 100% completed. The VTs had O&M committees in place, but the committee of Kagango was not undertaking its functions, as evidenced by the poor maintenance of the VT structures such as the cattle troughs and PSP taps.



**Aleresi VT in Katakwi District**



**Kagango cattle trough, with lack of O&M**

**ii) Earth dams for livestock watering, and multipurpose use constructed**

One earth dam (Kyenshama) in Mbarara District, and Nakayonza Multipurpose Watering Facility in Nakasongola District were monitored.

**(i) Kyenshama earth dam in Mbarara District**

Kyenshama valley dam is located between Kiruhura and Mbarara districts in Kashongi and Nyabisirira Town Councils. The planned target for Kyenshama earth dam was to attain a 50% physical progress by end of the financial year. By 31<sup>st</sup> December 2022, the achieved target was 65%. Hence, surpassing the annual target. The construction contract was awarded to Global International Services Limited at a cost of Ug shs 10,859,947,338. The construction commenced on 19<sup>th</sup> November 2021, with a contract period of 18 months expected to end on 2<sup>nd</sup> August 2023. The scope of work involved construction of an intake, embankment, reservoir, transmission/distribution mains, attendant’s house, cattle troughs, PSPs, VIP latrines and spillway among others.



**L-R: Intake structure; Spillway of Kyenshama Earth Dam in Mbarara District**



**Shuttering of the Reservoir Tank of Kyenshama Earth Dam in Mbarara District**

As at 30<sup>th</sup> January 2023 the construction works were ongoing. Components constructed and/or ongoing construction included: The intake, embankment, reservoir, and spillway. Pending were the transmission/distribution mains, cattle troughs, PSPs, VIP latrines, attendants house.

Implementation challenges included heavy rains, escalation of construction materials prices, and delayed payment of contractor's certificate.

### **(ii) Nakayonza earth dam in Nakasongora District**

Nakayonza Multipurpose Water Supply System in Nakasongola District was 80% completed. It was an 8 months' contract ending December 2022 but extended for three months to March 2023. The reservoir tank tower was raised awaiting the supply of tank which was in the fabrication process. The distribution main was completed; pump house and cattle troughs constructed. The Nakayonza HC II and primary school will be part of the beneficiaries. By the time of monitoring on 9<sup>th</sup> February 2023, works had stalled due to non-payment to the contractor. Remaining works included: laying the distribution network, plumbing works and connection of pipe network.

### **iii) Solar powered small-scale irrigation systems developed**

The solar powered small-scale irrigation systems developed by the WFP Regional Centers ranged between 80%-90% levels of completion. Conversely, those developed by NEXUS Green Limited were at less than 10% physical progress. The area served ranges between 10-15 acres and benefitting both individual and a group of farmers composed of both male and females.



**Opapa SSI in Serere District**



**Tangi SSI in Nwoya District**

The schemes developed by the WFP Regional Centers included: Tangi in Nwoya District, Ayomi in Omoro District, Acimi in Oyam District, Apuwai in Tororo District, Opapa in Serere District, Nyarwambu in Ntungamo, Kiranga in Ntoroko District, Lutente in Kalungu District, Miti Ebiri in Kyotera District, Mpumudde in Lwengo District, Orutooma in Kiruhura District, Rugarama Rubirizi District. Mijumwa SSI in Nakaseke District, Tibigambwa SSI in Hoima District and Kisodo in Kyankwanzi District.



***The following section presents a case study of the small scale solar powered irrigation schemes constructed by NEXUS GREEN LTD***

M/S NEXUS GREEN (UK) Ltd, was awarded a contract worth Euros 111,060,591 for design, supply and installation of 687 solar powered water supply and irrigation systems: (252 irrigations, 302 rural water, and 133 urban water). The contractor was paid nine million Euro (8.1% of the contract sum) by 31<sup>st</sup> December 2022. The contract period is from 26<sup>th</sup> July 2021 to 25<sup>th</sup> July 2024 i.e. duration of three years.

The scope of work involves construction of a pump house, installation of the solar panels, pump and all other electro mechanicals, transmission and distribution lines, laying of lazer drip/spray irrigation tapes in 5ha of land.



**Pumping station of Rugarama SSI System in Rubirizi District**

The works delayed to start for a period of one year. As at 31<sup>st</sup> December 2023, 21 irrigation schemes were under construction. The irrigation schemes beneficiaries are individual farmers.

The monitoring team visited five sites to verify performance: Lutente in Kalungu District, Miti Ebiri in Kyotera District, Mpumudde in Lwengo District, Orutooma in Kiruhura District, and Rugarama Rubirizi District. Overall, works were progressing at a slow pace less than 10% physical progress.



**Column studs for installation of solar array for Orutooma SSI system in Kiruhura District; and for installation of reservoir tank for Miti-Ebiri SSI systems in Kyotera District**

**Challenges faced by the NEXUS GREEN Project**

- i) At the beginning, the project lacked a feasibility study which is key in project approvals and ultimately timely implementation.
- ii) Inadequate capacity of the contractor consequently only 21 sites out of the planned 190 in the FY were ongoing. The progress averaged between 5-10% at the various sites visited yet the works contracts ends in July 2024.

**Recommendations**

- i) The MFPED Development Committee should ensure the successor project follows the Public Investment Management System (PIMS) procedure of project approval by having a feasibility study in place.
- ii) The contractor should fast-track the project implementation to cope up with the timing.



### iii) Micro-scale irrigation schemes developed

The MAAIF and LGs are implementing the Micro-Scale Irrigation Program, with support of the World Bank - Uganda Intergovernmental Fiscal Transfer (UgIFT). The aim of the program is to support farmers to purchase and use individual irrigation equipment. The program targets to support at least 5,000 smallholder farmers in the selected 40 DLGs to purchase and use micro irrigation equipment every financial year.

By 31<sup>st</sup> December 2022, the project had registered 1,191 farmers expressing interest on the Irri-Track App, with 567 successful farm visits carried out. A total of 64 farmers who made their co-payment had their systems installed, while other 85 installations were ongoing in the monitored districts. Examples of farmers for whom, installations were done is presented in **Table 3.15**. The irrigation systems types installed were mainly drag horse pipe compared to all the other types. Majority of the installations were functional. Overall the beneficiary farmers found the drag horse laborious and not appropriate.

**Table 3.15: Performance of UgIFT beneficiaries as of 31<sup>st</sup> December 2022**

Name	District	Parish	Irrigation system type	Purpose of the system	Status	Remarks
Mr. Ssekyondwa Mugumu Willy	Masaka	Kabonera	Drag horse pipe method	Horticulture	Functional	He shifted his garden from the swampy area to his home, and also realized higher yields from his vegetable garden. He has no challenges with the system so far.
Mr. Omonyini Steven	Tororo	Malaba TC	Drag horse pipe method	Crop farming	Not functional	The source ran dry after two months of installation pointing to poor siting. Consequently, the project was abandoned as it was expensive to develop a new water source.
Mr. Kalulu Peter	Jinja	Bugobya parish	Drag horse pipe method	Horticulture	Functional	The pipes supplied with the system were quite short to serve his garden of one and a half acres.
Mr. Mukasa Jimmy	Mubende	Busaale	Drag horse pipe method	Horticulture	Not functional	Incomplete installations. The contractor did only 20% of the works and left saying that he never received money from MAAIF to complete the work.
Mutazindwa Julius	Bushenyi	Numba	Drag horse pipe method	Horticulture and coffee	Functional	The pipes supplied with the system were quite short to serve his garden of 1.9 acres. He none the less realized more yields from his horticulture garden attributable to ability to plant crops all year round, and the coffee was flourishing.
Kibirige Nicholas	Mubende	Minjuwa	Sprinkler method	Coffee, Banana and Pineapple plantation	Functional	The co-funding was expensive for his counter parts. He realized more yields from his garden which he wished every farmer is able to access these water for production intervention.
Wanya Gabriel	Mbale	Bukhumwa	Drag horse pipe	Horticulture and banana	Functional	He recorded higher yields from his tomato and cabbage gardens. His contract was signed late almost after a year since expressing interest.
Amanya Grace	Mbale	Khomoto	Drag horse pump	Horticulture and banana	Functional	He got more yields from his garden. He was satisfied with the system.

*Source: Field Findings*



**L - R: Drag horse installed at Mr. Julius Mutazindwa’s farm in Numba Parish, Bushenyi District; Sprinkler system installed at Mr. Nicholas Kibirige’s farm of 1.5 acres in Mijunwa Parish Mubende Municipality**

### **Key challenges**

- i) Late release or provision of prequalified list of suppliers by MAAIF.
- ii) Inadequate capacity of contractors exacerbated taking on many contracts.
- iii) High poverty levels that inhibit timely contributions for the co-funding.

### **Recommendation**

MAAIF should timely release prequalified list of suppliers to support timely recruitment.

### **General implementation challenges the Water for Production Department**

- i) Resettlement Action Plan including land valuation disputes, absentee land lords, and customary land tenure-ship constraints.
- ii) Inadequate funding for the planned schemes both under donor and GoU resources.
- iii) Poor coordination between the Agro-Industrialization Secretariat (MAAIF) and MWE in planning, implementation and reporting of outputs.

### **Recommendations**

- i) The MWE, MAAIF and other Agro-industrialization agencies should secure land before implementation of the project works.
- ii) The MWE, MAAIF and other Agro-industrialization agencies should seek for partnerships outside government in the promotion and development of water for production initiatives.
- iii) The lead of the Programme Working Group should be reassigned to other Ministry, Department or Agency to ensure that Programme Working Group is reactivated.

## **3.2.8 Aquaculture production increased**

### **Introduction**

This PIAP output involves activities aimed at promoting aquaculture, Administrative and Support Services; Aquaculture Promotion; Infrastructure Development and Management; Quality Assurance and Control for fisheries; Water Resources Management

The planned outputs for FY2022/23

- i) Aquaculture promoted
- ii) Aquaculture parks developed



### **i) Aquaculture promoted**

As at 31<sup>st</sup> December 2022, MAAIF through its Promoting Environmentally Sustainable Commercial Aquaculture (PESCA) project promoted aquaculture fish and fish products, giving priority to locally-developed environmentally-sustainable practices and focusing on smallholder and rural livelihoods and the formation of gender responsive producer groups.

PESCA intended to establish 120 producer organizations (POs), however (1) % of producer organizations were formed with women and youth in their membership, at least 30% of women and youth as members of the producer organizations with deliverable reports, the construction of 50 ponds and supply of fingerlings to the youth groups in Nakaseke was also supported. Similarly, 10 fish cages were set up in Kalangala District in December 2022 as shown in the photo below.



**Fish cages (5mx5mx3m) in Mwena Village, Kalangala District**

### **ii) Aquaculture parks developed and fishing communities supported**

The support to fishing communities remains low focused on establishment of fish production and handling infrastructure by NAADS and fish ponds and Aqua Parks by MAAIF and the DLGs.

Civil works for construction of fish handling shades at Hamukungu on Lake George and Katwe Kabatoro TC on Lake Edward were ongoing (80% complete). Thirty (30) fish cages were delivered and installed in 8 crater lakes in Kichwamba, Busiro, Ruteete and Kasenda sub-counties in Kabarole District; they were stocked with fish fingerlings (90,000 tilapia & 20,000kgs of feed) in Kabarole District.

An Aquaculture Management Information System (AQUAMIS), configured in two parts, was in advanced stages of completion. One part was to act as an internal repository for all information on the aquaculture value chain for line government ministries, while the other is for data collection expected to be used by the District Fisheries Officer to regularly submit relevant information along the aquaculture value chain.

In addition, the physical one-stop shop at Entebbe was substantially complete (renovation and remodelling works of old building) and installation of ICT systems was ongoing. This is act as a resource center and interaction space for investors and local actors in the aquaculture value chain.



**The One-Stop Aquaculture Shop at Ministry of Agriculture, Animal Industry and Fisheries in Entebbe**

Development of aqua parks in Mwena Kalangala and Tarogali, Apac District were behind schedule; works stalled in Mwena while in Apac the works had not commenced. There were general delays in the design and build works contracts brought about by the absence of key experts on the side of the contractors as provided for in the contract under clauses 16 &17 of the general conditions. The unwillingness of the contractors to adhere to the proposed timelines by the MAAIF technical and site meeting missions’

The Government conducted civil works for design and build of the Water Based Cage Aquaculture Park at Mwena, Kalangala District and civil works for design and build of a land based Aquaculture Park at Taragoli in Apac District. However the contractor for the land based park submitted drawings and a revised schedule of works for approval before the commencement of works, whereas the contractor for the water based park in Kalangala was uncooperative despite agreeing on specific timelines and targets which were aimed at ensuring successful implementation of the action, most of the specific timelines were not respected, only the foundation was laid and materials delivered on site, construction works were halted in September 2022 at 5%, this was mostly attributed to land wrangles involving three parties among other issues



**An abandoned site for fish hatchery and feed store at the aquaculture park in Mwena Village, Kalangala District**

As at 31<sup>st</sup> December 2022, the works at Mwena, Aquaculture Park in Kalangala were behind schedule and had stalled at 5% physical progress, while the works at Taragoli in Apac District had not commenced. The works were mainly affected by land compensation issues and other related land wrangles between the District Local Government and the developers.

### **3.2.9 Disease diagnosis and control capacity and facilities developed and equipped**

#### **Introduction**

The planned interventions focused on developing and equipping facilities for controlling pests, vector and disease epidemics. Key activities included construction and equipping of animal holding grounds and quarantine stations and distribution of vaccines to control the spread of epidemics and ensuring that all established infrastructures are maintained.

The planned outputs included:

- i) Animal holding grounds quarantine stations and animal check points established
- ii) Animal vaccines procured and distributed



**i) Animal holding grounds quarantine stations and animal check points established**

The MAAIF under the under Agriculture Value Chain Development Project (AVCDP) set out to construct two zonal animal disease control centres in Lyantonde and Nwoya districts.



**Completed animal disease control centre in Nwoya District**

As at 31<sup>st</sup> December 2022, the works at GOT APWOYO Zonal Animal Disease Control Centre located in Bar-lyec Parish, Got Apwoyo Sub-county, Nwoya District were 100% completed except for a few snags which were being addressed in the defect liability period. Completed works included junior and senior staff quarters; administrative block plus laboratory; three stance and two stance toilets; foot and tyre wash; cattle crush and spray race; pump house, barbed wire fencing and water tank installation. There was a time over-run in project execution due to financial challenges faced by the contractor. The project completion date was extended from 8<sup>th</sup> August 2022 to 6<sup>th</sup> December 2022.

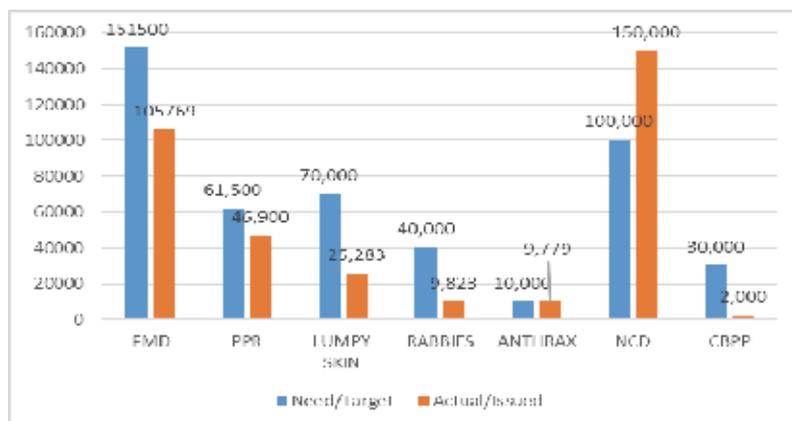
The key challenges were: Non-payment of workers by the contractor resulting in a complaint being filed with the parish chief; wild animals (elephants) that often vandalize the fencing materials/ barbed wires and the persistent snags in the works – some roads were not well graveled; murrum still missing on the packing yard; and missing floor traps in the three stance VIP.

**ii) Animal vaccines procured and distributed**

As at 31<sup>st</sup> December 2023, MAAIF had procured and distributed 349,554 (75%) of the targeted 463,000 doses of assorted vaccines. **(Table 3.16)** The greatest unmet need for vaccines was recorded under Contagious Bovine Pleuropneumonia (CBPP). Rabies and lumpy skin diseases. **(Figure 3.5)**. Those that exceeded or nearly met the vaccine need were Newcastle Disease Vaccine (NCD), and anthrax. This was partly occasioned by increased efforts to address outbreaks that occurred during the reporting period in the selected districts.

The beneficiaries decried the unmet need for vaccines and the reactionary approach to vaccination of animals by MAAIF other than proactively provide key vaccines especially trade diseases before out breaks to sustain gains of timely prevention.

**Figure 3.5: Performance vaccines request and issuance (No) as 31<sup>st</sup> December 2022**



*Source: Field Findings*



**Table 3.16: Performance vaccines request and issuance (No) as 31<sup>st</sup> December 2022**

Vaccine Type	Foot and Mouth Disease(FMD)		Peste des Petits Ruminants (PPR)		LUMPY SKIN		RABBIES		ANTHRAX		Newcastle Disease Vaccine(NCD)		Contagious bovine Pleuropneumonia (CBPP)		GRAND TOTAL		% of Actual/Target
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	target	Actual	
Kiboga	30,000	22,189	10,000	10,000	10,000	10,000	20,000	-	-	-	-	-	-	-	70,000	42,189	60.3
Bukedea	25,000	19,650	10,000	500	1,000	1,100	2,000	1,100	-	-	-	-	-	-	57,000	22,250	39.0
Jinja	7,000	4910	-	-	7,000	5,783	7,000	1,453	-	-	-	-	-	-	21,000	12,146	57.8
Mbale	-	-	-	-	-	-	-	-	10,000	9,779	-	-	-	-	10,000	9,779	97.8
Masaka	19,500	4,020	1,500	400	13,000	1,500	2,000	270	-	-	-	-	-	36,000	6,190	17.2	
Ssembabule	20,000	30,000	30,000	30,000	-	-	-	-	-	-	-	-	-	-	50,000	60,000	120.0
Kayunga	10,000	10,000	5,000	5,000	5,000	5,000	-	-	-	-	-	-	-	20,000	20,000	100.0	
Masindi	40,000	15,000	5,000	1,000	15,000	2,000	6,000	4,000	-	-	100,000	150,000	30,000	196,000	174,000	88.8	
Tororo	-	-	-	-	-	-	3,000	3,000	-	-	-	-	-	-	3,000	3,000	100.0
<b>Total</b>	<b>151,500</b>	<b>105,769</b>	<b>61,500</b>	<b>46,900</b>	<b>70,000</b>	<b>25,283</b>	<b>40,000</b>	<b>9,823</b>	<b>10,000</b>	<b>9,779</b>	<b>100,000</b>	<b>150,000</b>	<b>30,000</b>	<b>463,000</b>	<b>349,554</b>	<b>75.5</b>	



MAAIF responded to disease outbreaks in various districts accordingly depending on need and urgency of the vaccines required, although this was done, for some district there was late response given to their need to control the out breaks characterized by insufficient vaccine supply.

### Key issues

- i) Late response and insufficient supply of vaccines. In *Omor District an outbreak of black quarter disease caused fatalities in cattle due to delayed feedback from MAAIF since there was no vaccine in Entebbe at the time of the outbreak. In Mbale District, the anthrax vaccines requested for were inadequate by 30% and supplied 3 months late.*
- ii) *Poor cold chain system.* Most districts including Masaka, Mukono, Mbale, and Jinja were using inappropriate refrigerators (food grade refrigerators) for vaccine storage instead of the recommended pharmacy grade fridges with temperature monitors required for vaccine efficiency; while others had no cold chain at all and so sought help from the District Health Offices where they had more than one refrigerator for storage of the vaccines (which could threaten both human and animal health).
- iii) *Power outages worsened by lack of power backup for the available cold chain systems and so ice had to be purchased to keep the vaccines safe which was costly and unsustainable.*
- iv) Lack of restraining materials, operational funds and transportation means for the District Veterinary Officers.

### Recommendations

- i. The MAAIF should provide operation and transportation costs to veterinary officers.
- ii. The MAAIF should provide the required cold chain system to preserve vaccines.
- iii. The MAAIF should carry out routine livestock disease surveillance.

### 3.2.10 Assorted sets of Agriculture mechanization equipment acquired and deployed

#### Introduction

This PIAP output involves establishment and operationalization of the mechanization service centres and farm access roads, acquisition of mechanized equipment.

The planned outputs for FY2022/23 include:

- i) 240 tractors and implements delivered and distributed by MAAIF
- ii) 13 tractors and implements delivered and distributed by NAADS/OWC
- iii) Mechanization centres established

#### i) 240 tractors and implements delivered and distributed by MAAIF

As at 31<sup>st</sup> December 2022, the MAAIF under the department for agriculture mechanization and water for production acquired and distributed 40 tractors with matching implements including the trailers, disc plough, disc harrow and post hole diggers in the Lot 1 to Nwoya, Apac, Buyende, Masaka, Nakasongola, and Kayunga.

Additional 200 tractors of New Holland brand with varying horse power ranging between 75Hp to 135Hp were procured and training was ongoing for the beneficiary groups. Walking tractors



were also delivered and distributed to varied beneficiaries in Katakwi, Soroti, Bukedea, and Kole districts, while others were yet to be distribute farmer groups and were temporary kept at Namalele National Referral Mechanization Workshop.



**Clockwise: Tractors, implements; and excavator/dredging equipment at Namalele National Referral Mechanization Workshop**



**i) 13 tractors and implements delivered and distributed by NAADS/OWC**

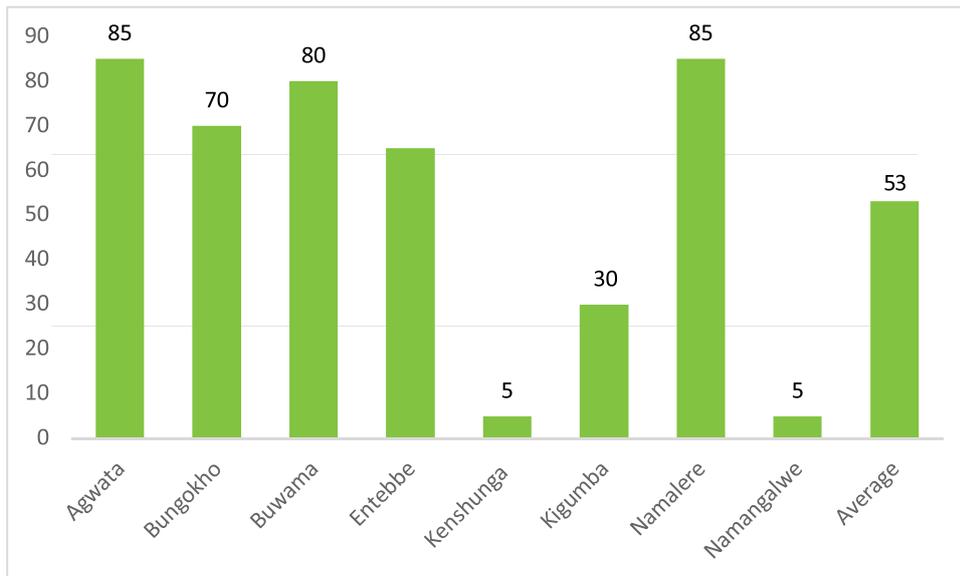
As at 31<sup>st</sup> December 2022, NAADS/OWC with funding from Ministry of Local Government (MoLG) for the Agriled interventions in Rwenzori region procured and delivered 13 tractors with the matching implements to various districts in Rwenzori region. Bunyangabo and Kitagwenda districts each got five tractors, while Kamwenge got 3. The tractors were operational, the operators were trained in operation and basic maintenance of the tractors.

**ii) The 5 regional centres in Bushenyi/Kiruhura, Mbale, Kiryadongo, Agwata and Buwama and Namalere National Referral Agriculture Mech Center constructed and equipped**

Overall progress averaged at 53% as at 31<sup>st</sup> December 2022 at the different sites. The percent progress varied with Buwama in Mpigi at 80% completion, Mbale-Bungokho at 70%, Keishunga at 5%, Kigumba 30%. Renovation works at the National Referral Agriculture Centre in Namalele in Wakiso at 85% and the Agwata station in Dokolo was 85% completed (**Figure 3.6**). The installed shutters at Buwama were not of quality as they were hollow doors imported from China and were not expected to last for a reasonable period.



**Figure 3.6: Progress of mechanization establishment (%)**



**Source: Field Findings, MAAIF Progress Report**

The works at Mbale-Bungokho, and Buwama stalled and the contractors were off site. This was attributed to delayed payments to the service providers. Mobilization of the contractor was low at Kenshunga station and had only completed bush clearance. MAAIF however deployed tractors intended to be hosted at Sanga Mechanization Workshop before commencement of works and were in the time being stationed at Sanga NAGRC& DB Field Station.



**Mechanization workshop in Mbale with some of the materials redundant on site**



**Mechanization workshop in Buwama in Mpigi District near substantial completion**



### 3.2.11 Enhanced efficiency in inputs distribution

#### Introduction

This PIAP output involves production of inputs for coffee production, coffee productivity management, inputs distribution among others.

#### The planned outputs for FY2022/23 included:

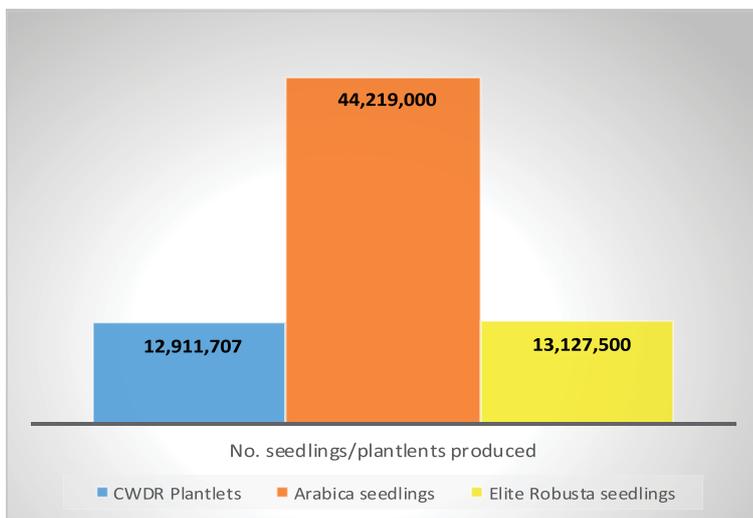
- i) Coffee plantlets generated and distributed
- ii) Inputs procured and distributed

#### Performance

##### i) Coffee plantlets generated and distributed

As at 31<sup>st</sup> December 2022, UCDA, through nursery operators had generated 12,911,707 Coffee Wilt Disease Resistant (CWDR) plantlets, 44,219,000 Arabica seedlings, 13,127,500 Elite Robusta seedlings in Northern Uganda were raised and ready for planting. 11,517,340 CWDr plantlets were procured under a Cabinet Directive and distributed in 6 regions of Rwenzori, South–Western, Central, Greater Masaka, Eastern, and Western (**Figure 3.7**) Distribution of coffee plantlets was under the directive to nursery operators to supply on credit. Similarly, Arabica coffee seedlings were distributed under a Cabinet Directive to two regions of South Western and Rwenzori. The UCDA supported nursery operators and famers with 653 pruning saws, and 844 bow saws.

**Figure 3.7: Coffee plantlets generated and distributed by type across all regions as at 31<sup>st</sup> December 2022**



Source: UCDA

#### Some of the examples of nursery operators who participated in the generation/ production of coffee seedlings and plantlets:

**Mr. Robert Rwabubare** a nursery operator from Igorora Cell, Mazinga Ward, Nyakabirizi Division, Bushenyi District produced 30,000 CWDR plantlets in FY2022/23 which he distributed to coffee farmers on credit as per the directive from UCDA. He also had arrears of 117,000 coffee plantlets supplied in the previous financial years. The arrears slowed down his business in part due to interruptions of the cash flows. For instance, he could not afford to procure an irrigation system for his nursery bed and repair the screen house since most of his capital was locked up in GoU outstanding payments for the supplied plantlets



Similarly, **Ms. Sylvia Tumusimire** a nursery operator from Lyembogo Cell, Mazinga Ward, Nyakabirizi Division, Bushenyi District generated/produced 51,500 CWDR plantlets, distributed 40,000 plantlets to UCDA on credit, she had previously distributed 34,000 plantlets on credit as well, and she lost about 5,000 plantlets due to the substandard nursery shade. This non-payment had greatly affected her business growth, *“if I were paid my arrears, I would renovate my coffee nursery bed shade and make a modern screen house,”* she said.



L-R: Nurseries for Robert Rwabubare from Igorora Cell, Mazinga Ward, Nyakabirizi Division; and Sylvia Tumusimire from Lyembogo Cell, Mazinga Ward, Nyakabirizi Division both from Bushenyi District

## ii) Inputs procured and distributed

By 31<sup>st</sup> December 2022, of the planned 350,000 macadamia and Hass avocado seedlings, NAADS had delivered and distributed 30,488 seedlings of macadamia to establish 304 acres for 50 farmer out growers/associations in 11 DLGs under the NAADS-Nucleus farmer partnership strategy for promotion and scaling up macadamia, also delivered and distributed 123,792 Hass Avocado seedlings to 201 farmer out growers to establish 773 acres in 26 DLGs under the NAADS-Nucleus farmer partnership strategy for promotion and scaling up Hass Avocado.

Low performance was attributed to the usage of the initially budgeted funds for macadamia and Hass Avocado seedlings for procurement of seed for the emergency food security intervention in Karamoja sub region. The procured seed included; cowpeas, simsim, terperly beans, green gram, and Maize seed for farmer groups supported by the Regional Farm Service centre in Nakaseke in season 2022B.

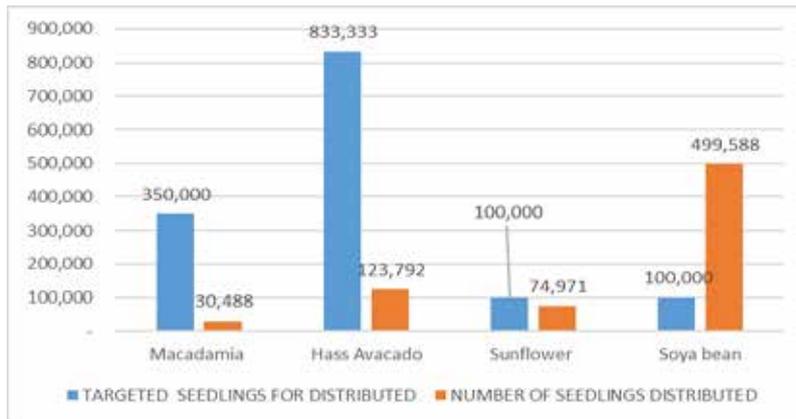


**Justine Babirye** from Buyongo Village, Nsala Parish, Rwamata Sub-county, Kiboga District for 750 macadamia seedlings that were received late when the rains had stopped. She hopes to plant the seedlings in march when the rains resume. Her main challenge is watering the seedlings until they're transferred to the main garden

Similarly, out of the planned 100,000kg of sunflower and soya seed, NAADS procured and distributed 74,971kgs of sunflower seed targeting 7 large scale farmers and 29 Farmer Cooperatives in the districts of Acholi and Lango sub-region, one large scale farmer in Nakapiripirit and a farmer cooperative in Bulambuli District, and distributed 499,588kgs of soya bean targeting 24 large scale farmers and 23 farmer cooperatives in Acholi and Lango sub region, as shown in the **figure 3.8**.



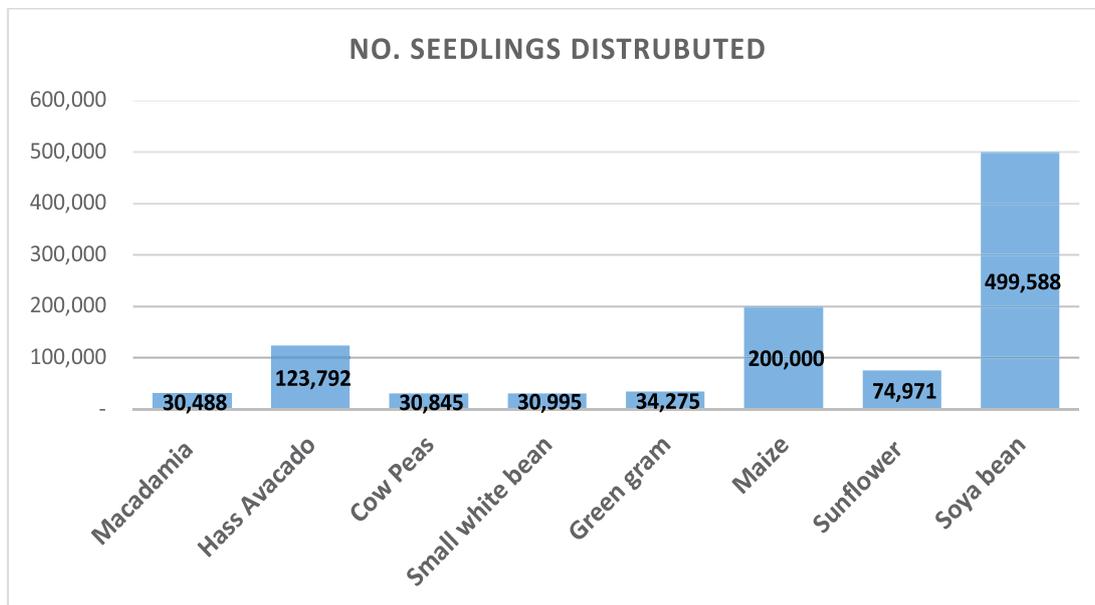
**Figure 3.8: Comparison of target and actual seedlings distributed**



Overall the soya beans dominated the seedling distributed as at 31<sup>st</sup> December 2022 with the least being macadamia. (Figure 3.9)

Source: Field Findings

**Figure 3.9: Inputs procured and distributed by NAADS as at 31<sup>st</sup> December 2022**



Source: Field findings; NAADS

Similarly, CDO in collaboration with Uganda Ginners & Cotton Exporters Association (UGCEA), distributed 2,449Mt of cotton planting seed to farmers in 72 cotton farming districts in Busoga, Bukedi, Bugisu, Teso, Lango, Acholi, West Nile, Mid-West & Central and Rwenzori Regions which was planted in 2022. Of the 2,449 Mt of seed, 105 Mt were distributed in the 10 hard-to-reach districts (Amuria, Katakwi, Abim, Napak, Koboko, Karenga, Adjumani, Moyo, Yumbe and Obongi, of which about 55 Mt of seed were distributed to members of the 350 women groups and 200 youth groups.

By 31<sup>st</sup> December 2022, CDO had distributed a cumulative total of 7,144,173 one-acre units of pesticides, 2,489 spray pumps, 323 Mt of fertilizers to farmers including women & youth. A total of 44 pumps, 60,583 units of pesticides, 141 Mt of fertilizers and 750 litres of herbicides were supplied to the 10 hard-to-reach districts.

For efficiencies of the inputs distributed, over 135,000 cotton farmers were trained on pesticide application, on-farm storage & disposal of packaging bottles. However, cotton farmers were faced with challenges of; a) late delivery of pesticides to all the regions, farmers had lost most of the



crop to pests; b) low seed germination in June-July season due to dry spells, districts of Pakwach, Nebbi, Gulu and Kasese among others were greatly affected; c) inadequacy of extension staff; c) Fluctuating cotton prices, among others.

**Examples of input distribution to the farmers under the different interventions including NAADS/OWC, CDO, UCDA among the visited districts is presented in Table 3.17.**

Overall by 31<sup>st</sup> December 2022, distribution of priority and strategic agricultural inputs to farmers and farmer groups across the country was done. There were some key constraints that included: a prolonged dry spell that affected germination of the seedlings; untimely delivery of inputs; inadequate transport means; inadequate quantities received than allocated especially for food security items; pests and diseases, inability to meet the emerging and ever-increasing demands and expectations by farmers due to declining funding to the organization; this has resulted into procurement and distribution of limited quantities of seed and seedlings to farmers.

Climate change, which has come with unpredictable weather patterns for instance delayed and erratic onset of rains for Season 2022B hence affecting the procurement, delivery and distribution cycle for agricultural inputs to farmers in various parts of the country and reluctance of some targeted beneficiary farmers to contribute/ co-fund 30% (NAADS) of the seed cost for the seed and seedlings provided for sunflower, soybean, macadamia and Hass avocado and poor attitude of farmers to undertake farming as a business. This was mostly implemented by several programmes: NAADS, CDO and UCDA among others. A summary of inputs accessed is presented in table 3.17.

**Table 3.17: Access to agricultural inputs by farmers as of 31<sup>st</sup> December 2022**

Beneficiary	Location	Programme	Inputs accessed	Remarks/Challenges
Dr. Omono	Village: Arana Parish: Nyamukino Sub-county: Lunyulu District: Nwoya	NAADS	Macadamia: 9,000 seedlings	Most of the seedlings received were of a good quality with an exception of few which had over grown. However he lost about 250 seedlings due to the adverse dry spells and pests.
Richard Onoba	Village: Ngagalo Lower Parish: Parwa Sub-county: Parombo District: Nebbi	CDO	Cotton seed: 90 kgs Pesticides: 200 units	The cotton seed was of good quality. However, his production was lower than he anticipated. This was attributed to the drought. Also the pesticide was delivered very late by CDO when he had lost most of the crop to pests.
Mrs Joy Mukaire (Kamuli Avocado Farmers' Cooperative Society )	Village: Nakakabara Parish: Kiyunga Sub-county: Mbulamuti District: Kamuli	NAADS	Hass Avocado: 4,010 seedlings.	The seedlings distributed were of a good quality, however they were distributed late in December 2022, and most farmers had not planted at the time of monitoring in January 2023. We also noted that the cost of production for this crop is very high and it takes long to yield (about three years).
Mrs Justine Babirye	Village: Buyongo Parish: Nsala Sub-county: Rwamata District: Kiboga	NAADS	Macadamia: 750 seedlings	Seedlings were received late when the rains had stopped. She hopes to plant the seedlings in march when the rains resume. Her main challenge is watering the seedlings until they're transferred to the main garden.



Beneficiary	Location	Programme	Inputs accessed	Remarks/Challenges
Mr Apuuli Binagajo	Village: Waaki Parish: Waaki Sub-county: Kihugya District: Bulisa	CDO	Cotton seed: 3kg Pesticides: 4 units	CDO delivered pesticides late. He expected to harvest 800kg but due harsh weather conditions and late spraying he is likely to harvest not more than 600kg. His main challenge is the unstable cotton market price.
Ayesiga Wycliff	Village: Kakora Parish: Bugana Sub-county: Bulisa District: Bulisa	CDO	Cotton seed: 150kg Pesticides: 100 units	He expected to harvest 22 tons of cotton, but is likely to harvest only 7 tons of cotton. Low production was attributed to drought and late delivery of pesticides by CDO. He lost 40% of the crop to pesticides at the time of delivery.
Prof Oswald	Village: Kitete Parish: Kasangula Sub-county: Namungo District: Mityana	NAADS	Macadamia: 300 seedlings.	He received all the seedlings in a very good condition. His main challenge was that this crop needs too much land. For instance only one acre accommodates 80 seedlings
Twikirize Racheal	Village: Lyemigobora Parish: Mazinga Sub-county: Nyakabirizi District: Bushenyi	UCDA	Coffee: 150 CWDR seedlings	She was appreciative of UCDA. However, her main challenge was rampant pests.
Masereka Ronald	Village: Kidungu Parish: Kabirizi Sub-county: Lake Katwe District: Kasese	CDO	Cotton seed: 45kg Pesticides: 10 units	His production was lower than what he expected. Low production was greatly attributed to pests. The pesticides received were <i>of very poor quality thus not effective. "Farmers that purchased pesticides from local shops have better gardens"</i> he said
Nanteza Yvonne	Village: Twoje Parish: Namugombe Sub-county: Nairambi District: Buvuma	NOPP	Farming input seedlings: Cabbage, Tomatoes Egg plant Carrots	Her garden was doing very well with an exception of the cabbages that had dried due to pests (black lot). The farming had helped her in food security and cater for other domestic needs after selling her produce.
Namwande Judith	Village: Twoje Parish: Namugombe Sub-county: Nairambi District: Buvuma	NOPP	Farming input seedlings: Cabbage, Tomatoes Egg plant Carrots, Onions	The inputs received were of good quality. She had started harvesting at the time of monitoring in January 2023, this helped her in maintaining food security in her home and also sold the rest at a local market.

**Source: Field Findings**



### 3.2.20 Oil palm seedling nursery in Buvuma established (ha)

#### Introduction

This PIAP outputs involves oil palm value chain development and promotion mainly through the National Oil Palm Project (NOPP) overall objective of the project is to contribute to poverty reduction and economic growth in Uganda through enhanced productivity and commercialization of agriculture. The project targets to reach an estimated 30,800 households with an outreach of 154,000 beneficiaries of which 30% are women and 40% are youth.

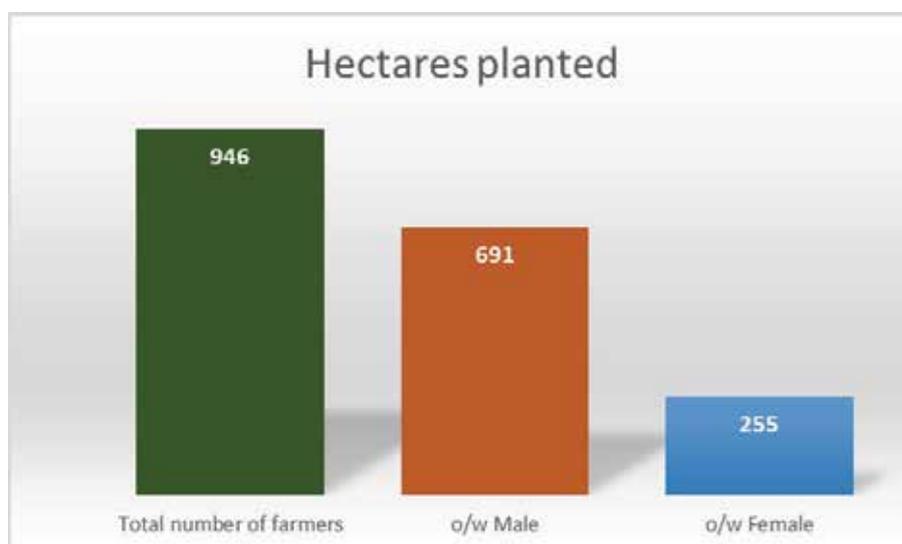
The planned outs for the FY2022/23 included:

- i) Hectares of oil palm planted by small holder farmers.
- ii) Oil palm value chain developed by the private sector operator.
- iii) Households not directly participating in oil palm development supported in alternative livelihood.

#### i) Hectares of oil palm planted by small holder farmers

As at 31<sup>st</sup> December, 2022, the total oil palm planting by smallholder outgrowers stood at 949.43 hectares in Buvuma District, this was planted by 396 farmers (31% women). (**Figure 3.10**). The smallholders planting target of 500 hectares was not achieved over the first half of 2022 as a result of the prolonged delay in reimbursement of land clearing and maintenance funds to farmers which affected more pledges of farmland and off-take of seedlings from the nursery.

**Figure: 3.10: Farmers participating in oil palm development and hectares planted (No)**



*Source: Field Findings*

#### ii) Oil palm value chain developed by the private sector operator

As at 31<sup>st</sup> December 2022, the private sector operator established the targeted 1,650ha of nucleus estate and the nursery bed has 555,000 seedlings. A total of 12 hectares were identified as the site for the oil palm processing mill in Busamuza Sub-county.

**Oil palm plantlets in nursery at the nucleus estate in Buvuma****iii) Households not directly participating in oil palm development supported in alternative livelihood**

As at 31<sup>st</sup> December, 2022, NOPP had promoted activities along the apiary value chain in Buvuma (**Table 3.18**). The project had facilitated the training of 178 farmers (132 men and 46 females) in the management of honeybees and use of bee gear. Eight bee-keeping groups from the 178 farmers were formed and integrated with the Village Savings and Loans Associations (VSLAs).

**Table 3.18: Summary of Apiary trainings in Buvuma**

Sub County	Females	Males	Total	o/w Youth	Meeting purpose
Buwooya	02	07	09		Beekeeping Promotion training
Buwooya	00	06	06		Management of honeybees and use of bee gears
Buwooya	09	05	14	06	Management of honeybees and use of bee gears
Nairamibi	02	09	11		Beekeeping Promotion training
Nairamibi	01	05	06		Management of honeybees and use of bee gears
Nairamibi	04	12	16		Beekeeping Promotion training
Nairamibi	03	11	14		Management of honeybees and use of bee gears
Nairamibi	03	06	09		Beekeeping Promotion training
Nairambi	06	09	15	09	Beekeeping Promotion training
Busamuzi	01	08	09		Beekeeping Promotion training
Busamuzi	02	13	15		Management of honeybees and use of bee gears
Busamuzi	04	10	14		Beekeeping Promotion training
Busamuzi	01	12	13	03	Beekeeping Promotion training
Buvuma TC	03	08	11		Beekeeping Promotion training
Buvuma TC	05	11	16	05	Beekeeping Promotion training
<b>Total</b>	<b>46</b>	<b>132</b>	<b>178</b>	<b>23</b>	

*Source: Field Findings and NOPP Progress Report*

**3.2.21 Quality inputs on the market****Introduction**

This PIAP output involves animals and animal products promotion; coffee production; facilities and equipment management; quality assurance systems of all agriculture inputs



### The planned outputs for the FY2022/23 included:

- i) Cotton inputs procured and distributed
- ii) Coffee players inspected for compliance to standards
- iii) Coffee proficiency testing done

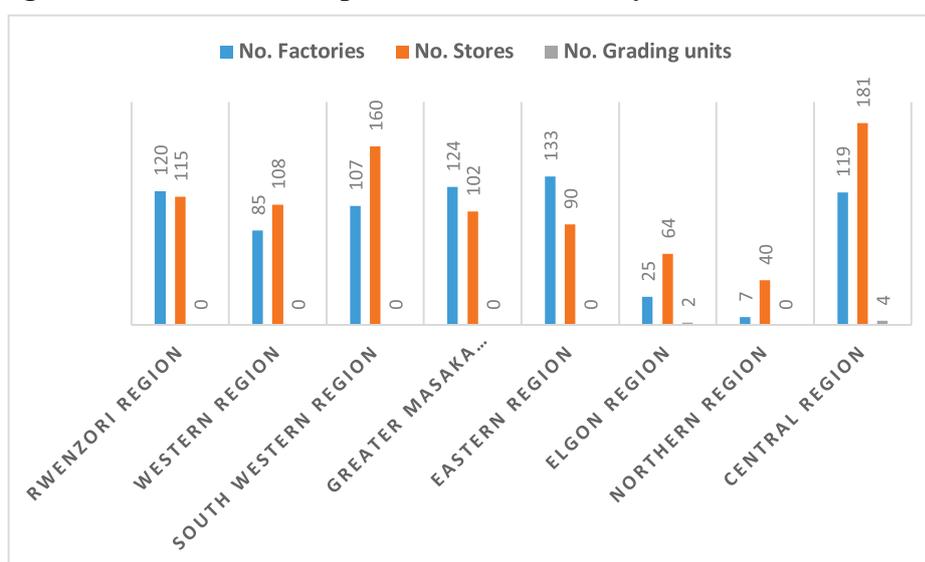
#### i) Cotton inputs procured and distributed

As at 31<sup>st</sup> December, 2022, cumulatively, 22,249 Mt of cotton planting seed, 10.153 one acre units of pesticides and 32,685 spray pumps as targeted had been distributed to farmers

#### ii) Coffee players inspected for compliance to standards

By 31<sup>st</sup> December 2022, UCDA had met its targets as 720 factories and 922 stores; 35 roasteries; wet mills and 6 grading units were inspected. **(Figure 3.11)**. However, of the above facilities inspected, 27 factories (20 in Greater Masaka, 2 in central, 5 in south-western) were suspended for various malpractices.

**Figure 3.11: Factories inspected and licensed by UCDA as at 31<sup>st</sup> December 2022**



**Source: UCDA**

In addition, UCDA had conducted a quality enforcement mission in Rwenzori Region, Kasese District ensuring required quality and standard for stores and primary processing factories. Of which some were sealed off due to non-conformance. Awareness and sensitization workshops for 380 value chain actors (F=95, M=285, Y=200) on coffee quality assurance practices, Coffee Regulations, Coffee Act, 2021, Food Safety and Standards in 4 coffee growing regions of Busoga, Bugisu, Rwenzori and Kigezi regions in collaboration with Uganda Coffee Quality Traders and Processors was also conducted

#### i) Coffee proficiency testing done

UCDA participated in a Coffee Proficiency Testing Program for physical and biochemical parameters as a requirement for ISO 17025 recognition and accreditation in collaboration with UNBS. It was established that the quality of coffee was greatly still being affected with defects, for instance the Robusta (Busoga) had high percentage of chalky whites and discolored beans; adulteration of Robusta with Arabica especially in the Rwenzori region and low outturn.



## Challenges

- i) Lack of field operational tools and equipment such as Global Positioning System (GPS) and weather forecast tools for work in local governments
- ii) Inadequate extension service access due to under staffing and limited transport means for the available staff.
- iii) Lack of field operational tools and equipment such as GPS and weather forecast tools for work in local governments. Especially in the hard to reach areas (islands)
- iv) Delays with operationalization of the e-payment gateway limiting end-to-end connection in the M-Cash System. As a result, there were delays in automatic transfers of funds from the project account to farmer's e-wallet as per the project design.
- v) Most people and farming communities not aware about the recent NAADS interventions and inputs such as macadamia and Hass avocado among others

## Recommendations

- i) The MAAIF should strengthen internal collaboration between its associated agencies to improve extension delivery at the LG level.
- ii) The MFPED and MAAIF should review and revise the budget ceiling for extension services to cater for increased staff recruitment and their operational expenses at the LG level.
- iii) The MFPED, MoPS, MAAIF and LGs should prioritize recruitment and equipping more extension workers.
- iv) The MAAIF and NITA-U should do E-Voucher System testing for sustainability and adaptability before use and fast track operationalization of the e-payment gateway.

## Conclusion

The Production and Productivity Sub-programme was good at 75% attainment of the semi-annual targets. The output performance varied with generation of agriculture technologies performing better than the rest of the outputs. Overall, the poor attainment of outputs was recorded under Water for Production interventions and aquaculture where most of the works were behind schedule.

Enhancing forward and backward linkages is necessary for improved attainment of outputs and eventual contribution to the programme goals. The key binding factors included poor prioritization, weak procurement and contract management system, inadequate staffing particularly under extension.

## Recommendations

- i). The MFPED Budget Desk Officers should strengthen analysis of the Budget Framework Papers and other relevant documents during the budgeting cycle to ensure that critical areas that spur national development are prioritized for funding by the MDAs. This will in turn reduce supplementary budget requests.
- ii). The MFPED should issue sanctions to accounting officers who fail to timely initiate procurements.
- iii). The MFPED should ensure that MAAIF and LGs provides for recruitment of extension workers as these are key to successful implementation of the PDM.



### 3.3 Storage, Agro-Processing and Value Addition Sub-programme

#### 3.3.1 Introduction

The sub-programme aims to improve post-harvest handling, storage and increase agro-processing and value addition in Uganda. In FY2022-23, the sub-programme was allocated Ug shs 62.120 billion translating into 4% of the Agro-Industrialization budget. Monitoring focused on six outputs under the PIAP output of storage and post-harvest handling facilities established at PDM level.

#### Performance

Overall performance of Storage Agro-Processing and Value Addition Sub-programme was good at 74% achievement of semi-annual targets. The performance of the sub-programme was mixed. The Cotton Development Organization (CDO) component of operationalization of the cotton seed dressing station and production of cotton products particularly under Fine Spinners Uganda Limited using the Lint Buffer Stock Fund registered good performance.

Conversely agro-processing and value addition under the Uganda Development Corporation (UDC) poorly performed with majority of funds still lying idle on the UDC bank accounts mainly due to delays in conclusion of valuations and final investment decision for institutions where government was to acquire shares. Allocation of funds to ventures which are not investment ready also explains the poor performance. (*Financial analysis of agro-processing industries is presented under the Agricultural Financing/Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity Sub-programme of this report*).

Acquisition of agro-processing equipment performed better than the installation, testing and commissioning part with majority (70%) of the facilities not operational due to lack of grid electricity. Non-operational facilities were also occasioned by partial deliveries under both the Agriculture Cluster Development Project under MAAIF and Agri-led interventions implemented by National Agriculture Advisory Services on behalf of MoLG.

**Detailed performance by outputs is presented subsequently. Refer to Annex 4 for details of sub-programme and intervention, and outputs performance.)**

#### 3.3.2 Storage and post-harvest handling facilities established at a Parish level

##### Introduction

This PIAP output aims at improving post-harvest handling and enhance storage of agro produce including value addition to facilitate marketing of agricultural exports.

The planned outputs for FY2022/23 included;

- i) Cotton seed dressing station operationalised.
- ii) Lint buffer stock procured using the Revolving Fund.
- iii) 170 matching grants facilities under cohort 3 completed and commissioned under the Agriculture Cluster Development Project.
- iv) Value addition supported through financing of Factories through acquisition of equity/ shareholding/ direct funding for the subsidiaries under the Uganda Development Corporation
  - a. Mabale Growers Tea Factory
  - b. Mpanga Growers Tea Factory
  - c. Mutuma Commercial Agencies Ltd



- d. Yumbe Fruit Factory completed with support from NAADs and equity/shareholding acquired by the UDC in Yumbe Fruit Factory
  - e. Soroti Fruit Factory
  - f. Bukona Agro-Processors Ltd
  - g. Budadiri Arabica Coffee Ltd
  - h. Kaaro Koffi Ltd
- v) 1,000 MT fertiliser store, with farmers meeting hall, in Buvuma District constructed.
  - vi) Value additional equipment delivered in completed ancillary infrastructure under Agri-led support.

**i) Cotton seed dressing station operationalised**

Operations continued during the assessment period. As at 14<sup>th</sup> February 2023, the Cotton Seed Dressing Station in Akwara Village, Pajule Sub-county, Pader District had received 2,170 tonnes of fuzzy cotton from ginner and prison farms of which 899.861 tonnes were delinted and processed. A total of 359.686 tonnes of seed cotton and 704 bales of cotton lint were produced.



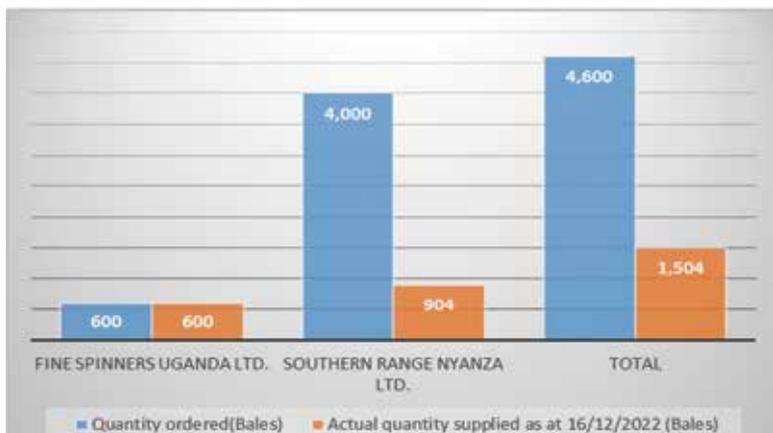
**Dressed cotton seeds dried under the sun due to ineffective dryers at Cotton Seed Dressing Station in Pader District**

**ii) Lint buffer stock procured using the Revolving Fund**

The Lint Buffer Stock Fund was established with an objective of promotion of domestic value addition to lint through ensuring constant supply of lint to local textile manufactures, consequently enabling local manufacturers to compete globally and contribute to stabilization of farm gate price as a result of increased returns from value addition to lint.

As at 31<sup>st</sup> December 2022, CDO had procured and supplied lint to Fine Spinners Uganda Limited, and Southern Range Nyanza Limited a total of 1,504 bales to support value addition. Overall the supply did not meet the demand as only 32% of the quantity ordered was met. Comparatively Fine Spinners Uganda Limited received 100% of the request, while Southern Range Nyanza Limited got 23% of the request partly because of a wider range of products manufactured by the former industry (**Figure 3.12**).

**Figure 3.12: Bales received from the lint buffer stock (No)**

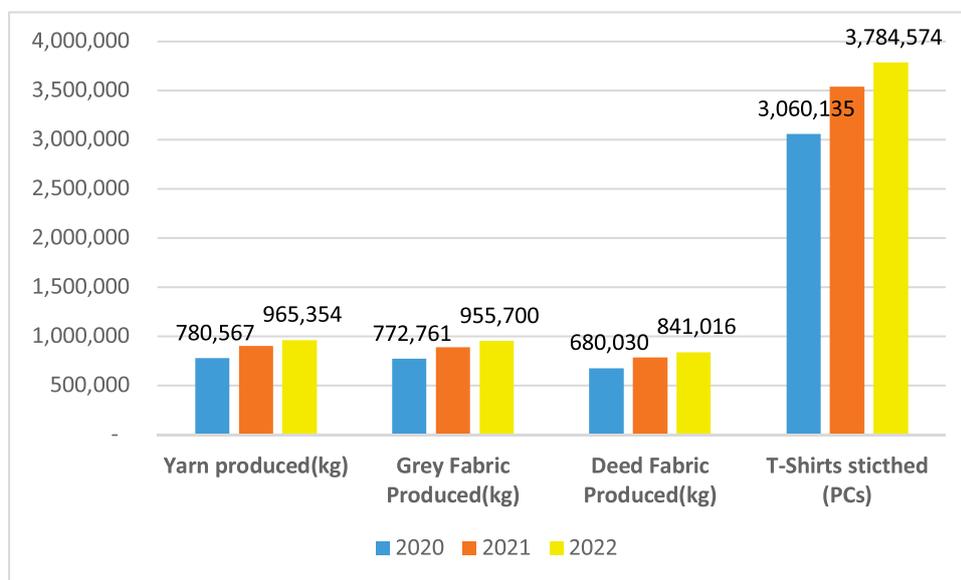


**Source: Field Findings, Cotton Development Organization**



In terms of production, a three-year production trend along the value chain for Fine Spinners Uganda Limited was reviewed. Findings indicated an estimated 24% increase between 2020 and 2022 for the different production outputs. **(Figure 3.13)**. The positive trend in production particularly at Fine Spinners underscores the positive impact of the Lint Buffer Stock Fund and the resultant outcomes of increased employment opportunities. As at 31<sup>st</sup> December 2022, a total of 1,535 staff were employed at Fine Spinners **(Table 3.19)**.

**Figure 3.13: Trend of Production statistics by output category as at 31<sup>st</sup> December 2022**



*Source: Field Findings, Fine Spinners*

**Table 3.19: Employment statistics by gender and education level**

Education Level	Number	Gender	Number
Primary one to seven	850	Male	580
Senior one to six	610	Female	955
University Graduates	75		
<b>TOTAL</b>	<b>1535</b>		<b>1535</b>

**i) Value addition supported through financing of factories through acquisition of equity/ shareholding/ direct funding for the subsidiaries under the Uganda Development Corporation**

The Uganda Development Corporation (UDC) was re-established under the Uganda Development Corporation Act, 2016 as the investment and development arm of the GoU. Its primary objective is to promote and facilitate industrial and economic development in Uganda. This is to be met through: i) establishment of subsidiary and associated companies, ii) enter into Public Private Partnerships (PPPs) with other enterprises, and iii) promoting and facilitating research into industrial development.

By 31<sup>st</sup> December 2022, the UDC was at varying stages of capitalizing nine companies to promote agro-industries, namely: Soroti Fruit Factory (Teso); Kigezi Highland Tea Factories (Kigezi); Mabale Tea Factory (Tooro); Mutuma Commercial Agencies (Eastern); Atiak Sugar Factory (Acholi); Kayonza Tea Factory (Western); Mpanga Tea Growers Factory (Tooro); Bukona Agro-Processors Ltd (Northern); and Kaaro Koffi Ltd (Western). Six additional project investments were in the pipeline to process anti-tick vaccines, coffee, cassava, tea and fruits.



**Most projects were under-performing or operating at a loss or stalled due to inadequate working capital, channeling funds into projects that were not investment ready, and poor governance as discussed below.** Examples of the factories/investments supported or earmarked for support are presented hereafter:

### **Bukona Agro-Processors Ltd**

Bukona Agro-Processors Ltd in Coo-rom Parish, Koch Goma Sub-county, Nwoya District was capitalized by UDC with Ug shs 11.957bn starting May 2021 to manufacture ethanol from cassava, maize and sorghum and cook stoves that use ethanol. The plant capacity for ethanol production is 40,000 litres per day. However, due to low supply of raw materials (cassava and maize) from farms, the plant was producing 12,000 litres (30%) per day which was below capacity.

In partnership with ViVO Energy, the company had fulfilled one export order of 2.5 million litres of ethanol to Kenya by 31<sup>st</sup> December 2022. It had a second order of 2.8 million litres for delivery by April 2023, however, the company needed a working capital/loan to procure the required volumes of raw materials. The Uganda Development Bank (UDB) declined to provide capital of Ug shs 5.5bn. By 17<sup>th</sup> January 2023, the UDC had approved a shareholders' loan (Ug shs 5.5bn) for the company and the documentation was under review by the Solicitor General.

In partnership with NARO, the company was producing energy saving ethanol cooking stoves that were under testing. The cost of purchase and using the stoves was high for an ordinary household attributed to the high cost of raw materials. The unit cost of a single burner was Ug shs 175,000 and for a double burner Ug shs 275,000. One litre of ethanol burns for four hours, unit cost of litre was Ug shs 4,400. A subsidy in producing the stoves was needed to make them affordable to ordinary households.

The cost of production was increased by use of diesel as main source of energy as the power line was not yet commissioned. In 2022, Ug shs 970 million was spent on diesel generator power. This made the business unprofitable. Other major challenges were the high prevalence of pests and diseases at farm level leading to increased mortality of crops, and the poor quality of cassava delivered to the factory.

To increase the viability of the company, the following are recommended: commissioning and connecting power to the facility; partnership between the company and MAAIF and agencies to establish a nucleus farm/out grower model to ensure a steady supply of materials and to strengthen research and extension services at farm level.

### **Soroti Fruit Factory**

In FY2022/23 it was planned that the processing capacity of the factory, distribution network, sales and the outlet stocking of brands would be improved to enhance growth in product consumption.

As at 31<sup>st</sup> December, 2022, a weigh bridge had been installed to improve weighing of fruits and reduce wastage at the reception point. Three trucks were procured and helped in improving distribution of products to the outlets. The primary products produced were: mango pulp, orange concentrate, ready to drink juice, fruit blend of orange and mango and to a limited extent lemon concentrate. The processing capacity of the factory remained low due to limited markets for the products, inadequate supply of raw materials associated with poor farming practices and pests and diseases that affected about 65% of the crop; supply by farmers of fruits of low quality with



inadequate sugar and juice content; insufficient working capital and lack of an automated product packaging machine (**Figure 3.14**).

The utilized processing capacity was averaging at 15% (0.9Mt) of installed capacity (6Mt/hour). The factory had 80,000kgs of fruit concentrate worth Ug shs 1.3bn stored in the cold room since 2019 due to lack of a market as most juice processors did not have cold chains; and competition from cheaper imported fruit pulp and concentrates.

Whereas the farmers in the areas near the facility produced five million Mt of orange fruits during the season, the factory procured 150 Mt (3%) for processing. On the other hand, although there was high demand for mango pulp, farmers were only able to supply 10% of the raw materials demanded by the factory demand.

The juice sales declined during the period (Figure 1) following the increase in retail product prices to cater for the rising costs of key production inputs such as fuel, sugar and packaging materials. The process of analyzing fruit quality was slow due to lack of modern fruit testing equipment.

There is need to strengthen collaboration and partnerships between Soroti Fruit Factory, NAADS, NARO, MAAIF, LGs and farmers to strengthen research and extension services, quality management and assurance, pest and disease control, laboratory services and product development along the entire fruit value chain value. An enabling law to restrict importation of fruit pulp and concentrate would enhance the operational capacity and profitability of the factory products.

### Mabale Growers Tea Factory

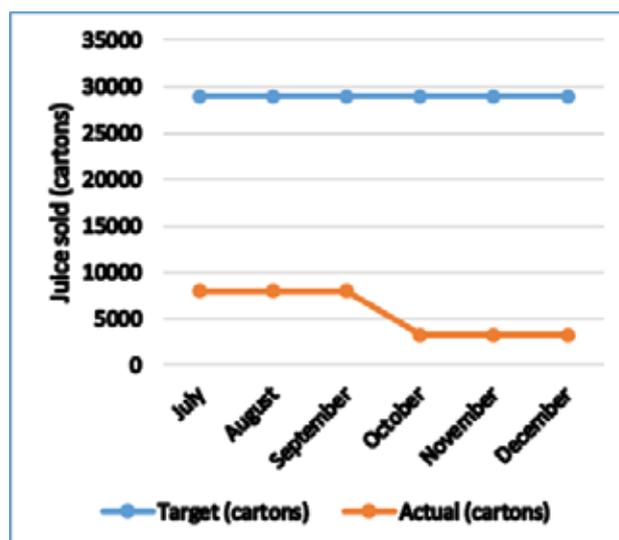
As at 31<sup>st</sup> December 2022, the Government had disbursed Ug shs 5.3bn as shareholder loan in September 2022 bringing the cumulative investment to Ug shs 25.3bn distributed as indicated in **Table 3.20**. The Ug shs 11bn as shareholder loan from UDC maintains the ineptness of Mabale Growers Tea Factory a similar position they were prior to the UDC intervention and more friendly financing options could be ventured into.

**Table 3.20: Distribution of GoU disbursements to Mabale Growers Tea Factory**

Year	Amount	Funding Category
2020	6,380,000,000	Shareholder loan
2020	13,620,000,000	Ordinary shareholding
2022	5,300,000,000	Shareholder loan
	<b>25,300,000,000</b>	

*Source: Field Findings, UDC, Mabale Growers' Tea Factory*

**Figure 3.14: Trends in volumes of juices sold against target by Soroti Fruit Factory by 31<sup>st</sup> December 2022 (cartons)**



*Source: Field findings*



Upon business recovery after UDC’s investment, production levels started rising to normal seasonal cycles influenced by rain pattern. The monthly green leaf production was systematically higher throughout all the months of 2021 compared to 2020 with 79% of the production target being achieved in 2021. (Figure 3.15).

**Figure 3.15: Green leaf production over the years at Mabale Grower’s Tea Factory**



This however declined in 2022, suffering the challenge (crisis) of credit rating on Credit Reference Bureau (CRB) with the associated inability to secure seasonal working capital. *The GoU investment through UDC though useful, the results remain suboptimal as the credit rating remains low and ultimately leaves the factory nearly in the same unfavourable position.* Table 3.21 shows performance of loans.

**Table 3.21: Loan Amortisation (Billion Shillings) as December 2022**

S/N	Loans	FEB. 2020	UDC 1st Phase - 2020	Operations To-date	UDC 2nd Phase - 2022	Reconc'n / Interest Accruals	Balance Oct 2022
1	KCB Loans	17.47	(9.61)	(1.48)	(1.60)	0.80	5.58
2	Shared Interest	1.84	(0.20)	(0.10)	(0.68)	0.11	0.97
3	UDC		6.38		5.30	-	11.68
<b>Total</b>		<b>19.30</b>	<b>(3.43)</b>	<b>(1.58)</b>	<b>3.02</b>	<b>0.92</b>	<b>18.23</b>

**Source: Field Findings**

**Key issues**

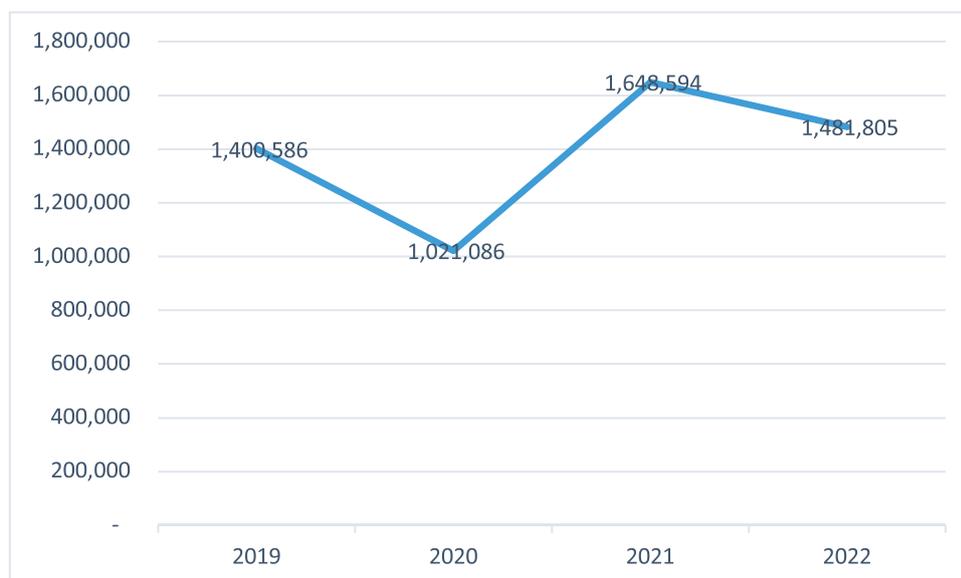
- i) *Inability to access credit due poor credit rating by the CRB.*
- ii) *Lack of tea policy and attendant regulation to support quality control and management.*
- iii) *An estimated Ug shs 500 million as outstanding obligation with URA which was computed during nearly the shut down time of the factory is perceived unfair worthy to waived to further support the factory return to its course of investment.*

**Mpanga Growers Tea Factory Limited:** As at 31<sup>st</sup> December 2022, UDC had acquired 51% shareholding and provided Ug shs 4.34bn in 2021 as equity. The company paid off part of the Centenary Bank loan arrears (Ug shs 2.21bn), partially covered the farmers’ salary and wage arrears, used Ug shs 400m for utilities and Ug shs 700m was injected into green leaf purchase.



In September 2022, an additional Ug shs 6.9bn was provided as shareholders loan which facilitated operations of the factory. As at December 2022, Ug shs 6.7bn was spent with majority of the funds (Ug shs 1.629bn) spent on green leaf purchase, followed by loan repayments of Ug shs 0.799bn, Ug shs 0.593bn on legal fees, salaries of Ug shs 0.537bn, and Ug shs 0.495bn on tea processing machinery. Overall the GoU investment supported operations of the factory evidenced by the improvement in production of made tea between 2022 and 2019 by 6%. **(Figure 3.16).**

**Figure 3.16: Production trends of made tea for Mpanga Tea Factory (kg)**



**Source: Field Findings**

**ii) One hundred and seventy (170) grantees under cohort 03 under Agriculture Cluster Development Project (ACDP) supported to establish post-harvest handling and storage infrastructure( ACDP matching grants<sup>7</sup>)**

In FY2022/23, the MAAIF committed to disburse Ug shs 12,100,000,000 to the successful farmer organizations under the matching grant. As at 31<sup>st</sup> December 2022, only Ug shs 1,320,423,019 (11%) had been disbursed to 23 grantees for the period.

The low disbursement was attributed to delayed delivery, installation, testing and commissioning of value addition equipment by the suppliers partly due to COVID-19 disruptions; and delayed enrolment of 10 farmer organizations on the on government e-payment system (IFMIS). Cumulatively a total of 205 sites were yet to have the process of delivery, installation, testing and training of machinery operators done.

Overall, 286 storage and agro-processing facilities of the 358 sites (80%) were selected, of which 33% were not operational with 11% not done **(Figure 3.18)**. The non-functionality of the 33% was mainly because of lack of access to electricity and or lack of appropriate to electricity voltage to power the machinery for areas that had a single phase connection other than the three phase required to power the value addition equipment.

<sup>7</sup> Utilization of funds at the Farmer Organizations do not follow the financial years hence the monitored activities relate to the expenditures for FY2022/23.



Some suppliers such as Musa Body University of Science and Technology for Bushenyi District had incomplete deliveries citing lack of electricity as the main cause of incomplete deliveries. Though this remained unchanged even when some selected area cooperatives such as Buyanja Tukore Growers Cooperative located in Buyanja Parish, Kyeizoba Sub-county, Bushenyi District where coffee huller equipment was delivered in part.



Partial components of Coffee huller delivered to Buyanja Tukore Growers Cooperative located in Buyanja Parish Kyeizoba Sub county, Bushenyi District

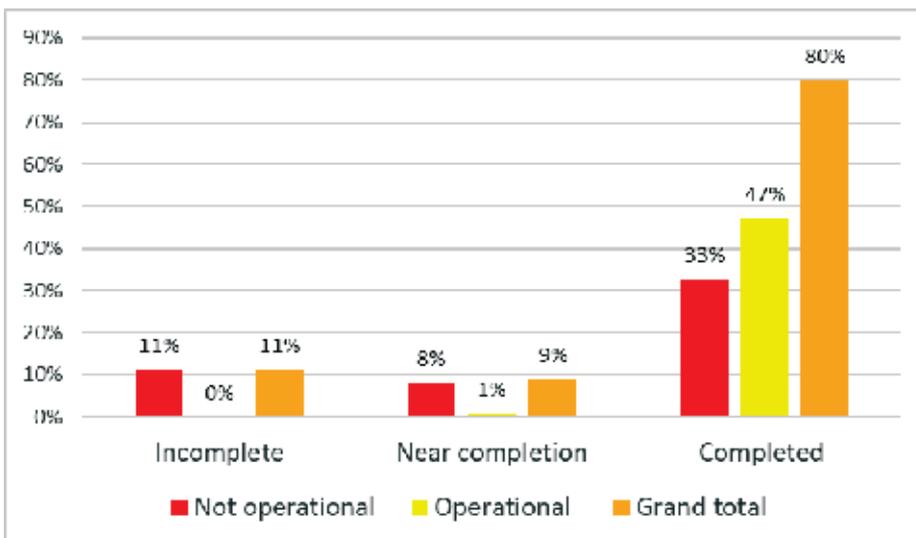
The visited beneficiaries who lacked connection to the grid noted that whereas Ministry of Energy and Mineral Development (MEMD) and MAAIF staff had visited these sites and promised to work out modalities of grid extension or intensification; the promise was yet to be fulfilled and continued to exist as white elephants.

The cooperatives that belonged to the 47% completed and operational category (Figure 3.17) such as Kabura Kwekuza Growers Cooperative located in Kyegombe Parish, in Kyabugimbi Sub-county boasted

in its ability to store and add value to coffee, improved prices to farmers after value addition, reduced distance to the value additional facility as would previously take the unprocessed coffee to Kabwohe, enhanced access to coffee husks which were utilized as fertilizers.

The area cooperative however decried of the high power tariff and power outages that affected processing of the coffee. It should be noted that the majority (95%) cooperatives that had functional equipment was supplied by China Hungapai and not Musa Body University of Science and Technology.

Figure 3.17: Physical progress of the matching (%) as at 31<sup>st</sup> December 2022



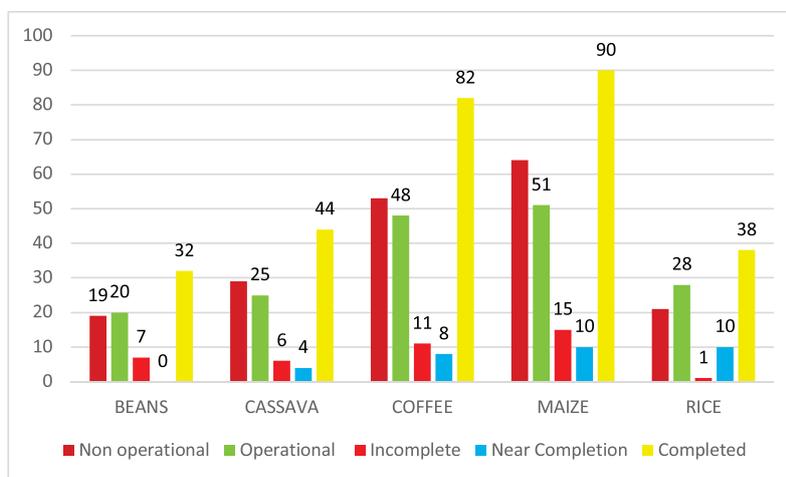
Source: Field Findings and ACDP Progress Report



The completed functional sites were systematically higher among all the targeted commodities (Figure 3.18). The operational storage and value additional facilities were systematically lower for three commodities with rice and beans category showing a reversal.

Installed and operational coffee huller at Kabura Kwekuza Growers Cooperative located in Kyegombe Parish, in Kyabugimbi Sub-county

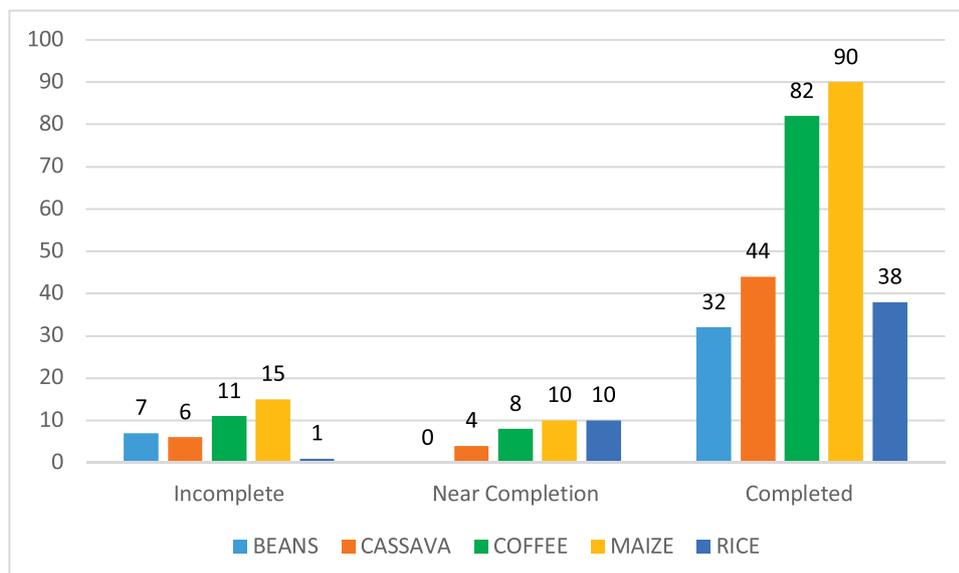
Figure 3.18: Physical performance of storage and value additional facility by commodity (No)



Source: Field Findings, ACDP Progress Report

In terms of completion status of the storage and value addition facility by commodity, maize and coffee were the most leading, with beans lagging behind (Figure 3.19).

Figure 3.19: Completion status of storage and value addition facilities by commodity (No)

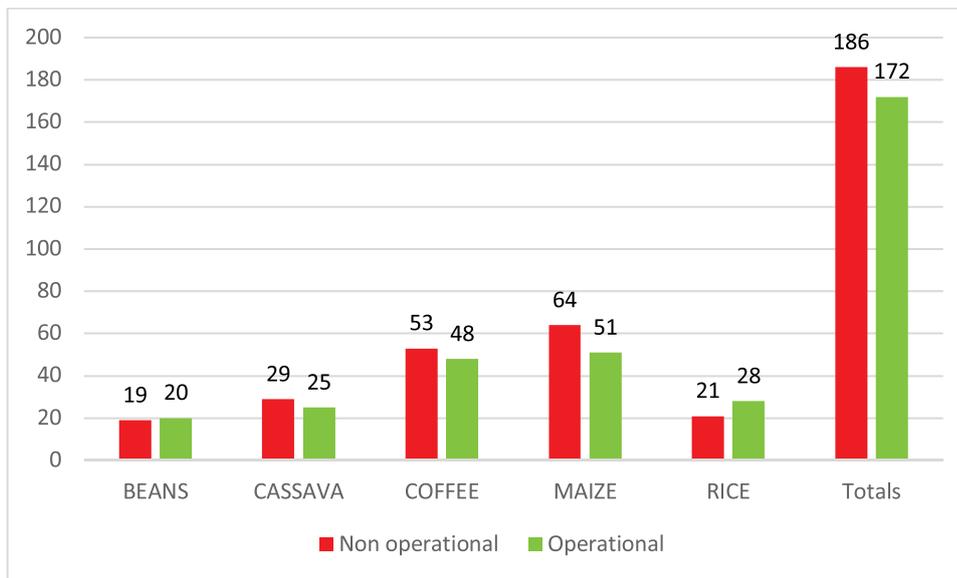


Source: Field Findings, ACDP Progress Report



In as much as the completion status was highest for the cooperatives intending to add value to maize and coffee respectively, further analysis indicated that the same category had the largest number of nonoperational value addition equipment respectively. **(Figure 3.20)**. Implying that the majority of the cooperatives were more inclined to adding value to either coffee or maize thus the need to fast track operationalization of the value addition equipment to ensure value for money but also benefit the majority of the participating farmers.

**Figure 3.20: Functionality of the value addition facility by commodity(No)**



*Source: Field Findings, ACDP Progress Report*

**iii) 1,000 MT fertiliser store, with farmers meeting hall, in Buvuma constructed**

As at 31<sup>st</sup> December 2022, procurement for a contractor to construct a 1,000 MT fertilise store was at initial stages having received approval of the project from the Funder-International Fund for Agriculture Development. The National Oil Palm also submitted the Environmental Social Impact Assessment (ESIA) to National Environmental Management Authority by the 31<sup>st</sup> December 2022 and awaited final report and recommendations.

**iv) Value additional equipment delivered in completed ancillary infrastructure under agri-led support**

The targeted value addition facilities in Western Uganda were established by the OWC with support from the MoLG in form of feed and maize mills among others in districts of Kyegegwa, Kasese, Kitagendwa (3), Kamwenge, Kasese which remained nonfunctional due to lack of grid electricity and in cases where there was connectivity, it was single phase which was not appropriate as the value addition facilities which required three phase power. Similarly, the coffee hulling facilities in Kyenjojo (2), Bundibugyo (2), Kitagwenda (3), mini dairy processing units in Fort Portal and Kamwenge remained nonfunctional for similar reasons. Details of performance is presented in **Table 3.22**.

**Table 3.22: Performance of the agri-led interventions**

Facility	Number of facilities	Status/ Functionality
Grain Milling facilities	Carried out civil works for construction of structures five (5) maize mills; two (2) feed mills (Kasese, Kyegegwa, Kitagwenda & Kamwenge). Delivery and installation of seven (7) maize and two (2) feed processing equipment for Kasese, Bunyangabu, Kamwenge, Kitagwenda, and Kyegegwa districts as well as one set of rice processing equipment for Buyangabu was ongoing.	Construction works of most facilities completed but not yet equipped nor handed over. with an exception of Kasese facility whose works are ongoing at 90% progress
Establishment of grain stores	5 grain stores of 300MT capacity each established in Kasese (2), Kyegegwa (1), Kitagwenda.	Construction works of most facilities completed but not yet equipped nor handed over with an exception of Kasese facility whose works are ongoing at 90% progress.
Establishment of milk bulking centres	Delivery and installation of 12 units of containerised milk coolers and matching generators with total capacity of 38,000 litres for Kamwenge, Kitagwenda, Kyenjojo and Kyegegwa districts ongoing.	Delivered but not installed.
Establishment of mini dairy processing facilities	<ul style="list-style-type: none"> <li>i) Delivery and installation of one set of UHT milk processing equipment (1,000 litres/hr) for Tooro Dairy Cooperative in Fort Portal city is expected to be completed in quarter one FY 2022/23.</li> <li>ii) Delivered milk processing and packaging equipment (250 litres /batch) for Nema Mixed Farm in Kamwenge and installation is ongoing.</li> </ul>	The mini dairy processing equipment were delivered, however not yet installed.
Coffee processing facilities	<ul style="list-style-type: none"> <li>i) Civil works for construction of 7 coffee processing/hulling facilities in Bundibugyo, Kyenjojo and Kitagwenda districts completed.</li> <li>ii) Delivery and installation of seven (7) coffee hullers for farmer cooperatives in Bundibugyo, Kyenjojo and Kitagwenda districts is expected to be completed in quarter one FY 2022/23.</li> <li>iii) Delivered and installed 57 motorised coffee pulpers (800kg of Cherie per hour) for 57 coffee wet processing stations under Bukonzo Organics farmers' Cooperative Union &amp; Mt Rwenzori farmers' Cooperative union in Kasese District.</li> </ul>	<p>Construction completed, process for power connection and installation of equipment underway.</p> <p>Construction works completed awaiting connection of 3-phase power to the site.</p> <p>Motorised coffee pulpers delivered and are operational at all the 57 beneficiary sites.</p>
Water for agricultural production	Construction of Nyamishekye Mini Irrigation Scheme (to cover at least 45 acres) for Kahunge & Nkoma SCs in Kamwenge, and construction of Nyakakindo Mini Irrigation Scheme to serve Hima TC in Kasese (targeted to cover 163 hectares).	Construction had not begun.
Establishment of fish production & handling infrastructure	<ul style="list-style-type: none"> <li>i) Civil works for construction of fish handling shades at Hamukungu on Lake George and Katwe Kabatoro TC on Lake Edward are ongoing (80% complete).</li> <li>ii) Delivered and Installed 30 fish cages for 8 crater lakes in Kichwamba, Busiro, Ruteete &amp; Kasenda SCs in Kabarole and stocked them with fish fingerlings (90,000 tilapia &amp; 20,000kgs of feed) in Kabarole District.</li> </ul>	<p>Construction works were ongoing at practical completion level.</p> <p>Fish cages delivered</p>

Source: NAADS/ Field Findings



Government through the National Agriculture Advisory Services (NAADS) carried out civil works for construction of structures of maize mill shelters, and most of them were completed and a few pending completions. These shelters were however, not equipped and not allocated to any farming cooperative group yet. For instance, the maize mill in Katente Village, Kyegegwa District as shown in the next pictures.



**L-R: Maize Mill Shelters in Khokya Village, Nyakabingo Parish Kasese District and Katente Village Kyegegwa District**

### 3.3.3 Conclusion

Overall performance of the Storage Agro-Processing and Value Addition Sub-programme was good at 74% achievement of semi-annual targets. The performance of the sub-programme was mixed.

The Cotton Development Organization component of operationalization of the cotton seed dressing station and production of cotton products particularly under Fine Spinners Uganda Limited using the Lint Buffer Stock Fund registered good performance.

Conversely agro-processing and value addition under the Uganda Development Corporation (UDC) poorly performed with majority of funds still lying idle on the UDC bank accounts mainly due to delays in conclusion of valuations and final investment decision for institutions where government was to acquire shares. Allocation of funds to ventures which are not investment ready persists and is self-defeating as the fiscal space continues to narrow. Similarly, the investments under the Agriled implemented by the NAADS on behalf of MoLG remains mainly idle due to limited availability of complementary services such as electricity.

Key constraints included: partial independence of the UDC technical arm demonstrated by GoU committing funds to projects that are not investment ready, partial deliveries and installations, lack of electricity partly due to limited collaborations among the programme players. There is need to fast track holistic planning to ensure that the entire value chain is operationalized at the same pace to avoid post-harvest losses.

### Recommendations

1. The UDC technical arm should be provided with additional capacity building and enhance their independence to ensure that funds are only allocated to projects that are investment ready and met the criteria for funding.
2. The MAAIF should strengthen collaboration among programme players to ensure that complementary services such as electricity are provided to the needy agro-ecological zones and ensure value for money of the agriculture investments.



## 3.4 Agricultural Market Access and Competitiveness Sub-programme

### 3.4.1 Introduction

The GoU aims to increase market access and competitiveness of agricultural products in domestic and international markets through various PIAP outputs discussed subsequently under performance.

The key implementing agencies for this sub-programme included: Uganda National Bureau of Standards (UNBS); Ministry of Local Government (MoLG); Ministry of Agriculture, Animal Industry and Fisheries (MAAIF); Uganda Coffee Development Authority (UCDA); Dairy Development Authority (DDA), and Cotton Development Organisation (CDO).

#### Overall performance

The performance of Agricultural Market Access and Competitiveness Sub-programme was poor at 42% attainment of outputs. The poor performance was driven by the incomplete road chokes, while others were yet to commence under the Agriculture Cluster Development Project despite the project extensions. Promotion of priority agriculture products in the domestic and international markets continued including regulation activities to ensure adherence to quality standards and construction of quality management laboratories however fairly performed. These components were constrained by delayed payments and inadequate funding. Farmers therefore continued to face post-harvest losses due to lack of reliable markets, poor road network and inadequate quality control and certification. **Detailed performance is presented hereafter. Refer to Annex 5 for details of sub-programme and intervention, and outputs performance.)**

### 3.4.2 Certification laboratory facilities renovated, built and equipped

#### Introduction

This PIAP output is linked to enforcement of product certification; regulation of cross border informal trade in agro-products. Renovation, construction and equipping certification laboratory facilities in various strategic locations; and training farmers and manufacturers on sanitary and phyto-sanitary standards. It contributes to the objective of increasing market access and competitiveness of agricultural products in domestic and international markets. During the FY2022/23, the budget output code to operationalize it was marketing and value addition.

#### The planned outputs for FY2022/23 included:

- i) Certification laboratory facilities renovated, built and equipped.
- ii) National Seed Testing and Certification Laboratory constructed and rehabilitated at Kawanda.
- iii) National Dairy Analytical Laboratory (NDAL) rehabilitated at Lugogo.
- iv) Food safety surveillance plan, policies, regulations, laws and standards developed and reviewed.
- v) Certification permits for products, firms issued and traders, primary processors, roasters, brewers, exporters, importers and other business licensed and inspected.
- vi) Calibrated equipment in 4 labs at UCDA offices on Jinja Road, Lugogo, Bushenyi and Iganga.



Semi-annual monitoring monitored four out of the six planned outputs for the FY2022/23. The findings are presented as follows:

**i) Certification laboratory facilities renovated, built and equipped**

In FY2022/23, works at the **National Metrology Laboratory at the UNBS headquarters** located in Butto Village, Kira Municipality in Wakiso District were reviewed. Construction of the Metrology Laboratory at the Uganda National Bureau of Standards (UNBS) headquarters was under implementation by MAAIF with donor support under the Agriculture Value Chain Development Project (AVCP).

As at 31<sup>st</sup> December 2022, physical progress was slightly behind schedule at 84% against the target of 91% planned progress and 91%-time progress. The project received two extensions with the second extension ending on 3<sup>rd</sup> April 2023.



**L-R: MAAIF financed National Metrology Laboratory under construction, installed water tank which was one of the variations at the UNBS Headquarters in Wakiso District**

Works slowed down during the COVID-19 pandemic period and the subsequent scope variations leading to time extension of the project end date from 1<sup>st</sup> June 2022 to 1<sup>st</sup> November 2022 and subsequently to 3<sup>rd</sup> April 2023. It was unlikely that the works would be completed by the new end date, given the pending works coupled with the project challenges that included:

- i). Delayed payments to contractors that affected cash flows of the contractors with delays lasting between 18 days to 64 days.
- ii). Delayed approval of variations/additional works that lasted between 10<sup>th</sup> October 2021 to 27<sup>th</sup> September 2022 when approvals were made.
- iii). Delays in deemed VAT approval by Uganda Revenue Authority especially the applications for the revised scope.
- iv). Scarcity of cement Portland Pozzolanic cement PPC CEM-2; that affected the quarry tiles activities and other masonry finishes for the site.



## ii) National Seed Testing and Certification Laboratory constructed and rehabilitated at Kawanda with support from Agriculture Cluster Development Project



### National Seed Testing and Certification Laboratory under remodeling and renovation under ACDP

Overall the works were behind schedule mainly due to scarcity of roofing materials (clay tiles from Uganda Clays Uganda Limited) and late site hand over associated with COVID-19 effects. The contractor received site in March 2022 for a contract which was signed on May 2021.

As at 20<sup>th</sup> February 2022, the physical progress was estimated at 60% against 30% financial progress. The works involve remodeling and renovation works including, electrical and mechanical works. There is a risky of the project not meeting the closure date of the project if the current pace of project implementation is not hastened.

### 3.4.3 Certification permits for products and firms issued

#### Introduction

This PIAP output aims at improved quality control through inspection, issuance of certificates of compliance to local and international standards. The planned outputs include:

- i) Coffee and coffee products inspected and certified
- ii) Marketing and Value addition undertaken

#### i) Coffee and coffee products inspected and certified

As at 31<sup>st</sup> December 2022, UCDA had inspected and certified 2,907,107 bags(60kg) for export to various global destinations (Arabica- 543,575 bags and Robusta-2,398,358 bags, 5,738 export grade coffee samples 28,690 cups) were liquored which was below the target by 21.6% due to price fluctuations, compounded by fewer loading instructions from coffee buyers, also seasonal variations which lead to ripening.

Conducted a quality enforcement mission in Rwenzori region Kasese District (7 stores and two primary processing factories sealed off due to non-conformance to the National Coffee Act 2021).

#### ii) Marketing and value addition

- i) UCDA promoted coffee consumption at sixteen local events including the 28<sup>th</sup> National Agricultural show in Jinja where it emerged the best exhibitor, and at the Public Procurement and Disposal of Public Assets Authority (PPDA) Business Expo in Kololo, Kampala.
- ii) UCDA conducted - the Best of the Pearl Robusta competition for the fine Robusta in collaboration with the Uganda Coffee Federation (UCF), barista training course for 46 sector players in the brewing technics (barista skills), and three capacity training for roasters in Kampala, Mbarara, and Kasese.



- iii) UCDA promoted and marketed Uganda coffee at three international exhibitions, (Vietnam, Turkey and USA) to show case and interest buyers in Ugandan coffee.
- iv) In partnership with the European Union, UCDA promoted and facilitated four private sector players (Nile Chocolates, Bwamba Cooperative, Native Group of Companies, and AINE and Sons Bundibugyo Limited in the cocoa sector to market the Uganda specialty cocoa and chocolates at the Salon du Chocolate Expo in France.
- v) Participated in one coffee proficiency testing programme for physical and biochemical parameters as a requirement for ISO 17025 recognition and accreditation in collaboration with UNBS.
- vi) Conducted one (1) comprehensive ISO17025 internal audit in preparation for UCDA ISO 17025 accreditation by the Kenya Accreditation Services (KENAS).
- vii) Trained 66 participants including exporters, traders, and farmers in the Kasese District including 46 males, and 20 females.

### **Challenges**

- i) The quality of coffee is still affected with defects, for instance the Robusta (Busoga) had high percentage of chalky whites and discolored beans; adulteration of Robusta with Arabica especially in Rwenzori region and low out turn.
- ii) Shortage of containers presenting a logistical challenge for export business of coffee.
- iii) Limited space at the Lugogo laboratories to handle increased export samples.
- iv) Travel restrictions for China representative office staff.

### **3.4.4 Ugandan coffee profiled and branded for specialty markets**

#### **Introduction**

This PIAP output involves access to regional and international markets; coffee value addition services; and activities that support improved competition on the access to regional and international markets, education and skills development; support to coffee value chain stakeholders.

#### **The planned outputs during the FY2022/23 included:**

- i) Inspections and certification for export conducted
- ii) Value addition trainings conducted

#### **Inspections and certification for export conducted**

By 31<sup>st</sup> December, 2022, UCDA Inspected and certified targeted 2,907,107 bags (60 kgs) for export to various global destinations with EU taking a major share followed by Sudan (Arabica – 543,575 bags and Robusta – 2,398,358 bags), 5,738 export grade coffee samples (28,690 cups) were liquored which was below the target by 21.6%. This was attributed to price fluctuations, compounded by fewer loading instructions from coffee buyers, also Seasonal variations which led to late ripening.



## Value addition trainings conducted

As at 31<sup>st</sup> December, 2022, UCDA had conducted various targeted training in different areas, that included value addition to adopt appropriate technologies at primary and secondary levels in Bukomansimbi District, barista training, capacity building among others as shown in table 3.23.

**Table 3.23: Training on coffee value addition and generic promotion as of 31<sup>st</sup> December 2022**

Training type	Total number of trainees	o/w Male	o/w Female
Barista training	42	28	14
Capacity building training	39	27	12
Value addition training	17	12	5

*Source: UCDA*

### 3.4.5 Modern agricultural markets constructed in strategic locations and infrastructure to facilitate their effective performance built

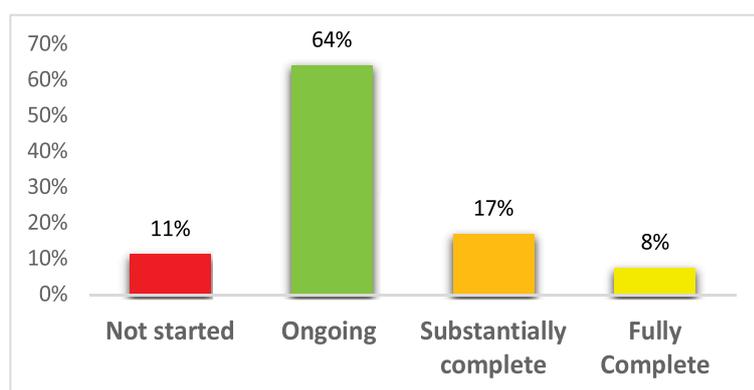
This PIAP output involves implementation of funded budget codes aimed at establishment of markets and roads infrastructure that open up markets of agriculture produce. The planned outputs for FY2022/23 included:

- i) Road chokes<sup>8</sup> constructed under the Agriculture Cluster Development Project
- ii) Access roads opened up in partnership with the National Oil Palm Project
- iii) Markets established under Agriled interventions by NAADS on behalf of MoLG

#### i) Road chokes constructed under the Agriculture Cluster Development Project

As at 31<sup>st</sup> December, 2022, physical progress averaged at 53% of road chokes implemented aimed at enhancing farm and market access among the 57 benefiting districts<sup>9</sup>. Performance generally varied among the beneficiary districts with some fully complete, others substantially complete while others had not commenced (Figure 3.21).

**Figure 3.21: Performance of road chokes under ACDP as at 31<sup>st</sup> December 2022**



The reasons for the late commencement of works included procurement delays, non-responsiveness of bidders and weak capacity of contractors to under major works in the different local governments under a given cluster. Examples of districts where works had not commenced included Mpigi, Kyegegwa, Butaleja, Tororo, Oyam, and Madi-Okollo.

<sup>8</sup> These are essentially road construction works aimed at easing access to markets from high production centres to boost commercial agriculture for the small holder farmers. The chokes are the hitherto barriers to easier and faster transportation. It can be lack of a bridge, lack of an access road or a road in very poor condition that are being addressed.

<sup>9</sup> Amuru, Apac, Arua, Bugiri, Bugweri, Bukwo, Bunyangabu, Bushenyi, Butaleja, Butaleja, Butebo, Dokolo, Gulu, Hoima, Iganga, Isingiro, Kabale, Kabarole, Kabarole, Kagadi, Kakumiro, Kalungu, Kamwenge, Kapchorwa, Kasese, Kassanda, Kibale, Kikuube, Kiryandongo, Kitagwenda, Kole, Kumi, Kwania, Kyegega, Kyenjonjo, Kyotera, Lira, Maracha, Masaka, Masindi, Mbale, Mpigi, Mubende, Namatumba, Nebbi, Ntungamo, Nwoya, Omoro, Oyam, Pakwach, Pallisa, Rakai, Rubanda, Rukiga, Serere, Soroti, Tororo, Yumbe



The completed or substantially opened roads opened up the out farm sites and eased access to markets for the farm produce. There were however issues related to operation and maintenance of the completed roads with those earlier completed requiring regular maintenance which was not provided for in the mainstream district budget (**Annex 7**).

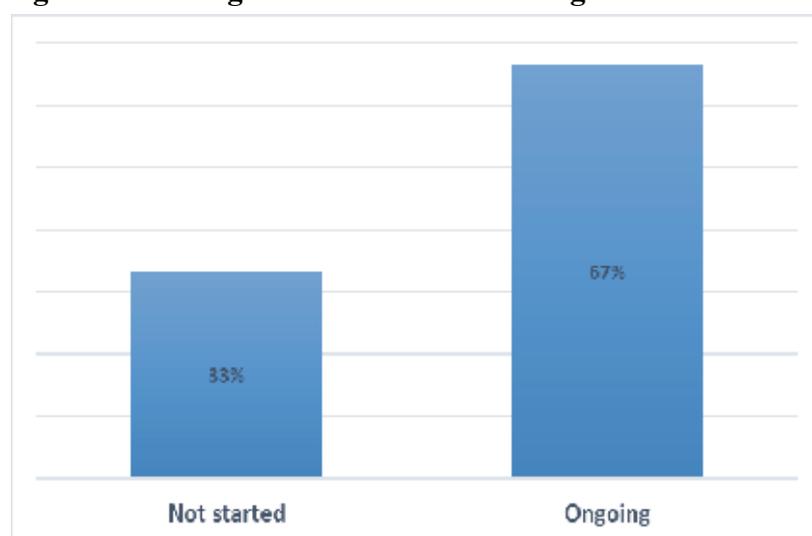
### ii) Access roads opened up in partnership with the National Oil Palm Project

As at 31<sup>st</sup> December 2022, MAAIF maintained ten (10km) of the targeted 50km of farm access roads in Kalangala, and rehabilitated 10km of the targeted 30km of farm access roads in Buvuma District.

### iii) Markets established under Agriled interventions by NAADS on behalf of MoLG

As at 31<sup>st</sup> December 2022, 67% of the agriculture produce markets were ongoing though behind schedule while the rest were yet to commence (**Figure 3.22**).

**Figure 3.22: Progress of construction of agricultural markets (%)**



*Source: Field Findings*

The key challenges included delayed site handover, changes in scope accessioned by demands from the beneficiaries. **Table 3.24** shows the performance of the selected markets in Rwenzori region.

**Table 3.24: Summary performance of Markets implemented under Agriled by NAADS**

Output	District	Cost (Ug shs)	Status
Busunga Town Council (TC) border market constructed	Bundibugyo	2,690,224,416	Works ongoing.
Roadside market at Nyakigumba TC	Bunyangabu	306,356,703	Works procured, handover of site delayed due to stakeholder engagement to harmonize scope of works in the 1st phase of construction
Rwaihamba market constructed	Kabarole	1,163,669,234	Works ongoing.
Construction of Kamwenge Central Market Phase 1	Kamwenge	1,262,901,496	Works procured, however experienced delay in commencement due to stakeholder encouragements. Works had commenced.



Output	District	Cost (Ug shs)	Status
Two (2) Rural Agricultural Markets (Kasangali - Kajolly market and Ezron Mbethe - Kinyamaseke main Market) constructed	Kasese	1,184,532,768	Works ongoing
Rwensasi Cattle and General Merchandise Market at Ruyonza S/County upgraded and Stalls, Lock ups, Restarant, Agrovet Shop, Loading Bay constructed	Kyegegwa	257,707,970	Works were yet to commence.
Construction of Kyegegwa Central and General Merchandise Market in Kyegegwa TC	Kyegegwa	927,202,780	Works ongoing
Kyenjojo Central Market constructed	Kyenjojo	1,713,728,371	Works procured, commencement of works pending approval of revised designs, following change of site from Kyenjoj TC to Mukunyu TC
Civil works for upgrading of KACULEETA Farmers Market	Fort Portal City	2,104,588,940	Works ongoing



**Lockups under construction in Kyegegwa Town Council Business Centre**

*The works were of fair quality. The sanitary facilities under construction were gender and equity insensitive as they lacked assistive devices for persons with disabilities. The female wing also lacked a curtain wall to ensure privacy of the female users.*

### 3.4.6 Conclusion

The performance of Agricultural Market Access and Competitiveness Sub-programme was poor at 42% attainment of outputs. The poor performance was driven by the incomplete road chokes, majority of which remained incomplete while others were yet to commence under the Agriculture Cluster Development Project despite the project extensions. Similarly, the other components did achieve as much as they were similarly behind schedule except for interventions of marketing of coffee and coffee products and some quality controls under the UCDA and the metrology laboratory at UNBS whose performance was constrained by inadequate or delayed funding. Farmers therefore continued to face post-harvest losses due to lack of reliable markets, poor road network and inadequate quality control and certification.

### Recommendations

- i) The MAAIF Accounting Officer should review the turnaround time for honoring payments for certified works to hasten project implementation as the payment delays constrain the cash flows of the contractors.



- ii) The MAAIF, and NAADS should review project implementation including cancellation of contracts for the non performing contractors.
- iii) The MAAIF should strengthen quality controls and certification of agro-produce with an aim of meeting international market standards.

### 3.5 Agricultural Financing/Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity

#### 3.5.1 Introduction

The Government aims to increase the mobilization, equitable access, and utilization of agricultural finance for farmers, agro-processing firms and farmer groups. During FY2022/23, the Agriculture Financing Sub-programme was dropped and funds previously disbursed under the sub programme were budgeted and disbursed under Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity Sub-programme under the Private Sector Development Programme.

Semi-annual monitoring covered three outputs under Capitalization of Government owned Institutions and other Financing Schemes PIAP output focusing on the Agricultural Credit Facility (ACF), Uganda Development Corporation (UDC) and Agriculture Insurance actions.

#### Performance

The performance of Agricultural Financing/Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity Sub-programme was good at 73%. The good performance was driven by the ACF that averaged at 93% attainment of outputs and outcomes. The UDC interventions poorly performed averaging at 39% attainment of outputs and outcomes. The low performance was attributed to delayed disbursement of funds to the agro-processing industries.

The bulk of funds remained unspent including funds carried forward from previous financial years. Its urgent that the UDC restructures the operational plans to improve absorption especially amidst the constrained fiscal space. Available data reveals that access to agriculture insurance and knowledge about the government programme remains low and the modalities for accessing claims remains unclear to many farmers. **Detailed field findings are presented hereafter: Refer to Annex 6 for details of sub-programme and intervention, and outputs performance.)**

#### 3.5.2 Capitalization of Government owned Institutions and other Financing Schemes<sup>10</sup>

##### Introduction

This output involves capitalization of partially GoU-owned value addition industries and private players engaged in agriculture production and productivity; storage, aggregation and bulking, agro-processing and value addition entities. It also involves capitalization of Agro-Consortium and the Insurance Regulatory Authority (IRA) to support Agriculture Insurance. The annual planned outputs were:

- i. Farmers supported with agriculture credit under Agriculture Credit Facility of the Bank of Uganda

<sup>10</sup> PIAP output is under the Strengthening Private Sector Institutional and Organizational Capacity Sub-programme under Private Sector Development Programme



- ii. Factories financed through acquisition of equity/shareholding/direct funding for the subsidiaries under the Uganda Development Corporation
- iii. Agro-Consortium funded to support Agriculture Insurance in Uganda

### Performance

#### i. Farmers supported with agriculture credit under Agriculture Credit Facility of the Bank of Uganda

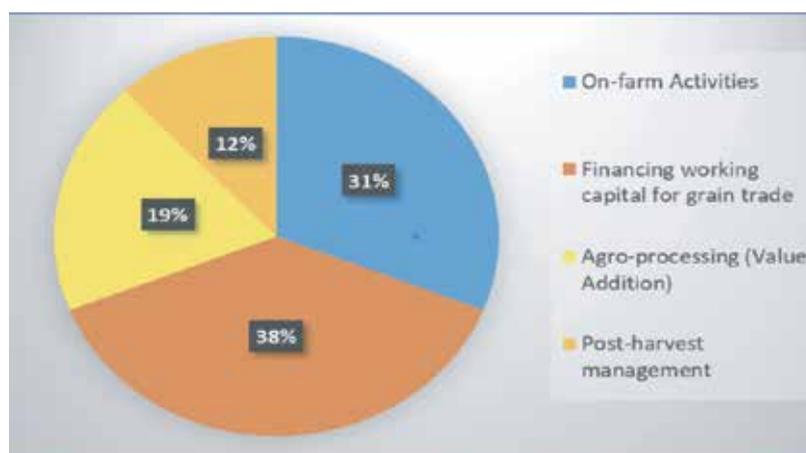
The ACF is a risk sharing public-private partnership that provides medium and long-term financing since 2009 to farmers to undertake agricultural projects, agro-processing and grain trade at subsidized interest rates. The ACF leverages resources of Participating Financial Institutions (PFIs) to bridge the financing gap, interest chargeable being 12% per annum with exception of working capital for grain trade that is chargeable 15% per annum. Block allocations of Ug shs 20 million are provided to micro-borrowers who often lack collateral.

As at 31<sup>st</sup> December 2022, the BoU had cumulatively received 3,350 loan applications from the PFIs with a total value of Ug shs 1.16 trillion, of which a total of 2,970 loan applications were processed and funded (89%) to the tune of Ug shs 751.33bn with the BoU contributing Ug shs 380.667bn while the PFIs contributed Ug shs 370.663bn. The funds were extended to on-farm activities, agro-processors and large off-takers that provide small-scale farmers with market access, inputs and post-harvest handling facilities.

Further analysis revealed that whereas the majority of projects funded were focused on on-farm improvement activities (87%), the bulk of lending was working capital for grain trade (38%) with post-harvest management and agro-processing attracting the least funding at 12% (**Figure 3.23**).

This trend implies that the ACF funds are mostly supporting the lower levels of the value chain to enhance agricultural production and productivity and are less focused on addressing the higher levels of the value chains of improving post-harvest handling and agro-processing. This trend does not holistically support progressive movement towards agro-industrialization and increased competitiveness for both local and international markets.

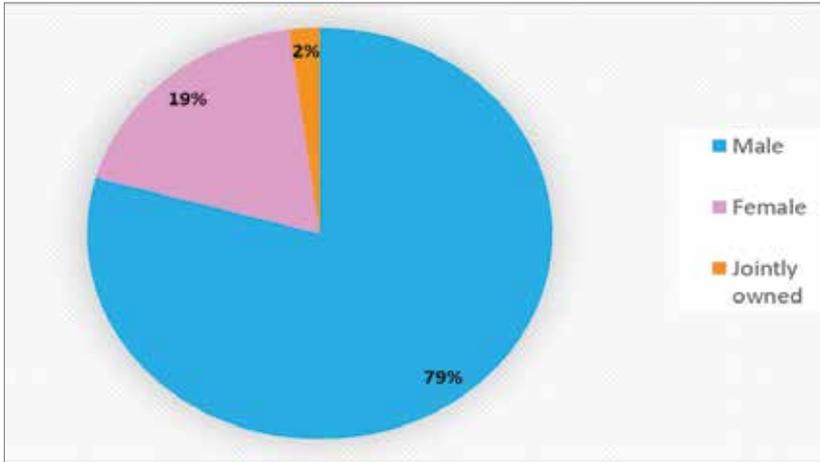
**Figure 3.23: Share of disbursed funds (%)**



*Source: Field Findings*



**Figure 3.24: Gender analysis of ACF loan disbursements as at 31<sup>st</sup> December 2022**

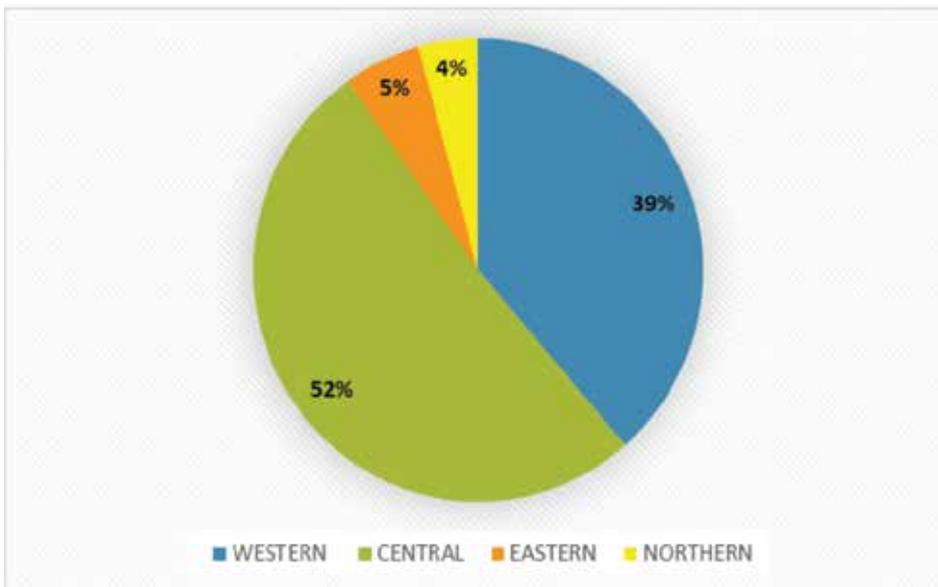


*Source: Field findings*

Gender analysis revealed male dominance in access to the ACF, a situation that has persisted over the previous years. **(Figure 3.24).**

The limited access to funds among female proprietors was associated with limited information access, lack of collateral, lack of working capital to support capital investments, and few women being currently engaged in commercial farming and value addition.

**Figure 3.25: Regional Distribution of ACF Beneficiaries by 31<sup>st</sup> December 2022**



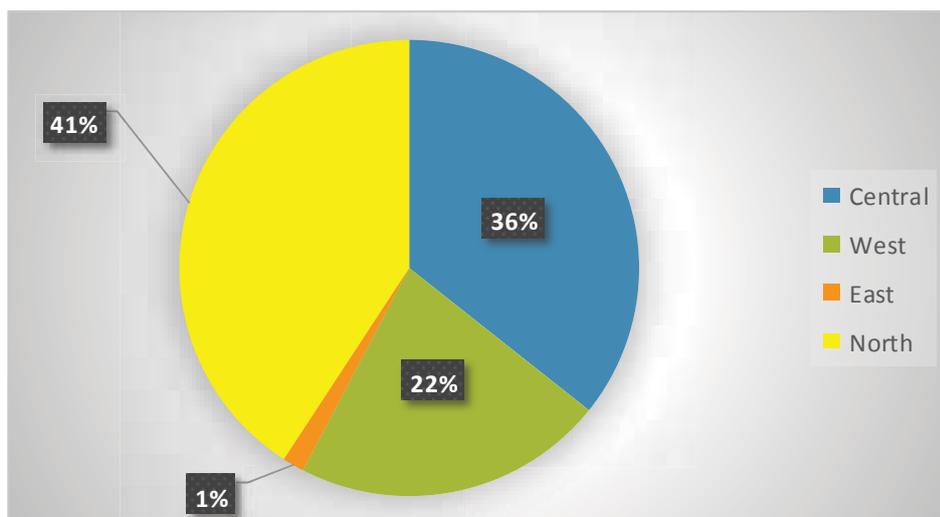
*Source: Field Findings*

Equity analysis in access to ACF revealed regional inequality in access to the ACF as at 31<sup>st</sup> December 2022. Access to ACF was highest in Central Uganda and lowest in Eastern and Northern Uganda **(Figure 3.25).**

The disparity in Northern and Eastern Uganda was partly due to low awareness within the population about the ACF; low availability of the scheme in the banking sector within these regions; low presence of financial institutions; and lack of collateral as most land is communally owned.



**Figure 3.26: Regional Distribution of ACF Beneficiaries under affirmative action by 31<sup>st</sup> December, 2022**

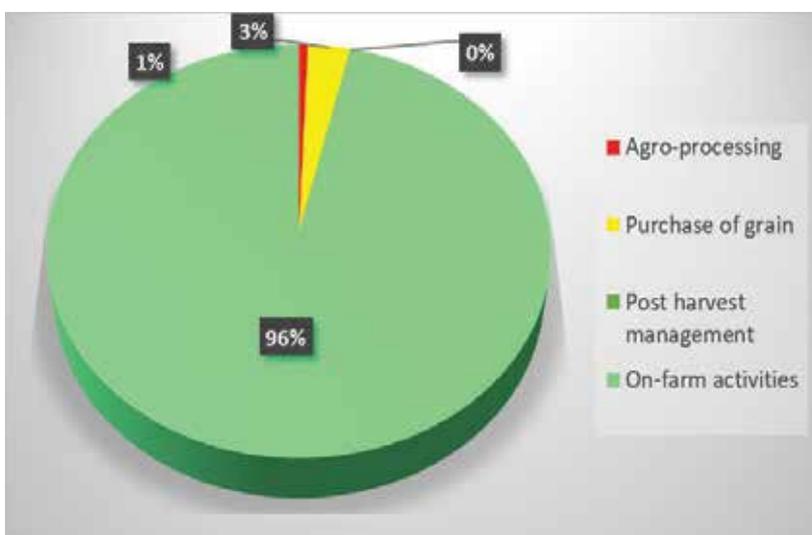


As part of affirmative action to increase access to smallholder farmers, including women and youth, the GoU introduced block allocations to farmers who lack collateral, to enhance financial inclusion by unlocking access to credit for the micro, small and medium enterprises (MSMEs).

Consequently, by the end of 31<sup>st</sup> December, 2022 there was evidence of improvement in access to credit by one of the formerly marginalised regions. Majority of the beneficiaries under the block allocation were from the Northern Region followed by the Central Region which came first without the affirmative action. (Figure 3.26)

Financing to farmers in this block allocation category was extended to four main areas: agro-processing, purchase of grain; post-harvest management; on-farm activities. The limited usage of funds on post-harvest management was attributed to low value of funds received under the block allocation that could not support large scale aggregation, bulking and storage. Consequently, block allocation just like the ACF without affirmative action mainly supported lower levels of the value chain. (Figure 3.27)

**Figure 3.27: Utilisation of Funds by value chain activity under block allocation (%) as at 31<sup>st</sup> December 2022**

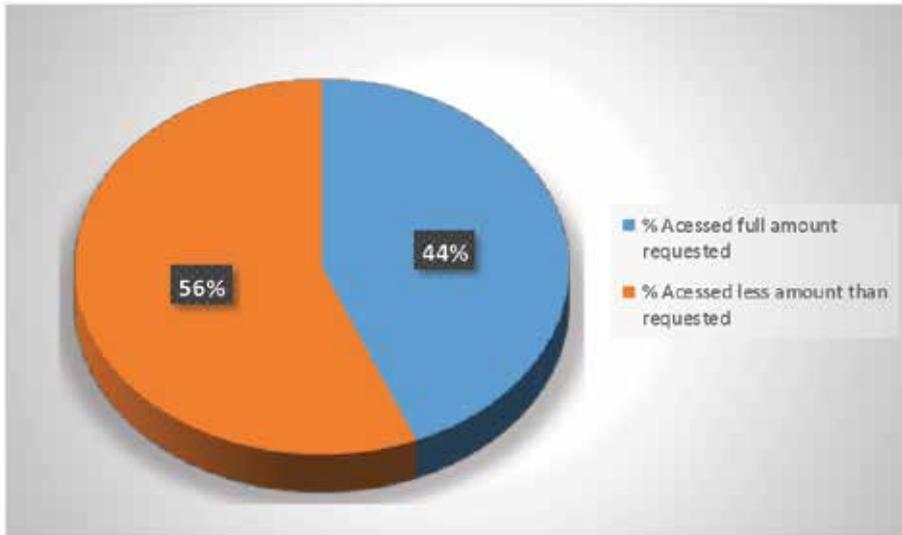




All the beneficiary farmers monitored as at 28<sup>th</sup> February, 2023 confirmed receipt of the funds as reported by Bank of Uganda (BOU). Majority of the visited beneficiaries used the credit for farm improvement.

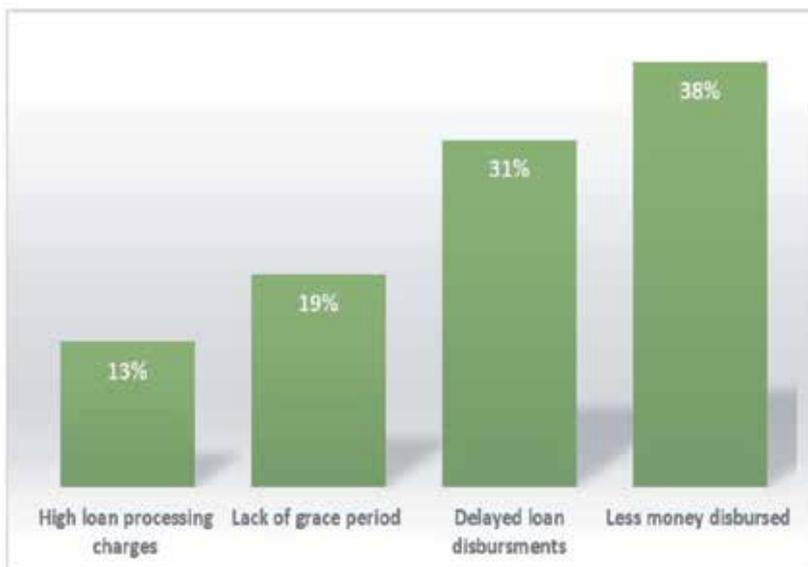
The majority of the beneficiaries however complained of inadequate and late disbursements of funds, only 44% of the famers/projects accessed all the funds as requested. **(Figure 3.28)**. The inadequate disbursements were mainly attributed to insufficient collateral among the visited beneficiaries.

**Figure 3.28: Proportion of beneficiaries that accessed funds as at 31<sup>st</sup> December 2022**



The key challenges of the ACF included: inadequate and late disbursements of funds, while others observed that the loan processing charges on the ACF were very high. In addition, lack of a grace period particularly for ACF beneficiaries engaged in perennial agriculture as they needed more time to harvest and use the proceeds to amortize the loan **(Figure 3.29)**. The delayed disbursements greatly affected farmers in grain production since prices had increased at the time when the loan was disbursed since they are seasonal crops.

**Figure 3.29: Shortcomings in access of funds from visited beneficiaries**





Consequently, there were some cases of beneficiary diversion of funds from the intended purposes for which the credit was initially sought, thus worsening the performance of the loan including ability to pay back. **Table 3.25** updates the case studies of ACF beneficiaries as at 31<sup>st</sup> December 2022.

**Table 3.25: Performance of ACF beneficiaries as of 31<sup>st</sup> December 2022**

Name	Parish	District	% Loan requested	% receipt of loan	Actual Use of the received funds	Remarks
Odong Joe	Barlowelo South	Apac	100	100	Procured a truck.	His tractor is in good condition, uses it to plough the land and also hires it out at a fee.
Obete Denis	Temogo	Apac	100	33	Purchased produce (Grain).	He received less money than he had requested, hence his targets were not met.
Mr. Atuhaire Gerald	Buhimba	Hoima	100	100	Purchased 9 dairy cattle	Market price was higher than he had anticipated. He therefore acquired less of his targets. His main challenge was that he wasn't given a grace period.
Fredrick		Jinja	100	100	Procured a truck.	Acquiring a truck enabled him to reduce costs of production, however, loan processing delayed by 5 months.
Kapero Micheal		Kapchorwa	100	100	Purchased produce (Grain).	Delayed loan processing period, so at the time of loan disbursement maize prices had gone up due to changing seasons. No grace period was given yet it is a seasonal based enterprise.
Ogwang Joe	Railway Quarters	Lira	100	65	Purchased produce (Grain).	He purchased less produce than he had planned due to less funds disbursed. This was attributed to inadequate collateral security.
Mrs. Asimwe Robert	Kiteredde	Masaka	100	80	Purchased grain	Long loan processing period, so at the time of loan disbursement maize prices had gone up due to changing seasons.
Mrs. Kyosimire Sylvia	Kinyara	Masindi	100	100	Procured two trucks	There was a delay in loan processing. He also noted that there is less awareness about this facility by the farmers.
Subuma Hamza	Kinyara	Masindi	100	100	Procured two trucks	There was a delay in loan processing, and he found the loan processing fee too high.



Name	Parish	District	% Loan requested	% receipt of loan	Actual Use of the received funds	Remarks
Matsiko Nicholas	Kamushoko	Mbarara	100	100	Procured Agricultural equipment	The loan processing period was so long (3 months' delay), which affected the dollar rate since he was importing the equipment.
Dr Mugasira Cranimer	Bwizi - Bwera	Mbarara	100	66.6	Purchased 18 bulls, paddocked, fenced, constructed a deep well, Dam and improved the banana plantation.	His project was doing fairly well. However he was faced with a challenge of losing his livestock to tick bone diseases, this is attributed to the counterfeit acaricides on the market.
Mr.Sejjemba Deogracious	Kabyuma	Mubende	100	50	Constructed; shallow well, planted pastures, fenced and purchased 35 bulls.	He only achieved 50% of his planned targets because the money advanced to him was not enough. This left his business hanging and struggling. The key challenge was the low project profitability due to the inadequate credit that was disbursed.
Mrs. Yiga Beatrice	Seeta	Mukono	100	66	Only a skeleton structure was constructed	There was low project profitability due to the inadequate credit that was disbursed. She intended to construct a warehouse, however she was given less money yet construction materials were more expensive on the market than planned. Works stalled at 45%.
Gaboi Nicholas	Maziba	Mukono	100	43.8	Purchase of an irrigation equipment and pineapple farm expansion	He only expanded the pineapple farm and bought agricultural inputs and deferred the irrigation system due to insufficient money disbursed.
Oyola Charles	Soroti City East	Soroti	100	50	Purchased produce (Grain).	He was appreciative of ACF. After milling his produce he was able to acquire 6 plots of land @ 30x100.
Mr. Ndege Benson	Kakiri	Wakiso	100	66.6	Purchased dairy cattle	He purchased less cattle than he had planned due to inadequate funds extended to him.

**Source: Field Findings**



## ii. Factories financed through acquisition of equity/shareholding/ direct funding for the subsidiaries under the Uganda Development Corporation

By 31<sup>st</sup> December 2022, the UDC was at varying stages of capitalizing nine companies to promote agro-industries, namely: Soroti Fruit Factory (Teso); Kigezi Highland Tea Factories (Kigezi); Mabale Tea Factory (Tooro); Mutuma Commercial Agencies (Eastern); Atiak Sugar Factory (Acholi); Kayonza Tea Factory (Western); Mpanga Tea Growers Factory (Tooro); Bukona Agro-Processors Ltd (Northern); and Kaaro Koffi Ltd (Western). Six additional project investments were in the pipeline to process anti-tick vaccines, coffee, cassava, tea and fruits.

As at 31<sup>st</sup> December 2022, 49% of the approved budget was released. Cumulatively 65% of the available funds were spent. Agro-processing industries that recorded least absorptions included; Zombo and Luwero Tea Factories and Busoga Sugar Factory where works were persistently behind schedule. (Table 3.26). *The funded agro-industries are discussed in the section of Storage, Agro-Processing and Value Addition Sub-Programme of this report.*

**Table 3.26: Disbursement performance of GoU financing to partial Government owned and private entities**

Description	Total Funds <sup>11</sup> Ug shs Million	Amount Spent Ug shs Million	Balance On Total Cash Ug shs Million	Amount Not Yet Released Ug shs Million	% release <sup>12</sup>	% spent <sup>13</sup>
<b>Recurrent Funds and Development Projects</b>						
UDC (Wage and Operations)	15,392	5,171	10,220	6,149	55	34
Soroti Project	11,331	2,750	8,581	-	100	24
Tea Factories Project (Mabale)	16	-	16	-	0	0
Sheet Glass	819	195	624	-	0	24
Feasibility Studies & Business Plan	2,916	1,276	1,639	1,147	43	44
Zombo Tea Factory	1,673	29	1,644	10,000	0	2
Luwero Fruit Factory	9,054	277	8,776	6,000	0	3
Moroto Cement Plant	2,241	443	1,798	-	0	20
Lake Katwe Salt Plant	359	7	351	-	0	2
Atiak Sugar Factory (Horyal)	207,967	204,057	3,909	174,110	36	98
Kabale Tea Growers	644	405	238	-	0	63
Mutuma Commercial Agencies Ltd	1,813	1,813	-	-	0	100
COVID-19 Funds	56,088	11,674	44,413	-	0	21
Nwoya Fruit Factory	5,568	-	5,568	-	0	0
Munyonyo Convention Centre	86,400	38,045	48,354	-	100	44
Busoga Sugar Factory	2,500	-	2,500	3,500	42	0
East African Medical Vitals	5,000	-	5,000	10,000	33	0
Bukona Agro Processors Ltd	1,213	-	1,213	-		
Budadiri Arabica Coffee Ltd	3,950	3,945	5	-	0	100
<b>Sub Total</b>	<b>414,951</b>	<b>270,094</b>	<b>144,857</b>	<b>210,907</b>	<b>49</b>	<b>65</b>

*Source: Field Findings*

<sup>11</sup> Total funds include funds allocated and released this FY2022-23 and unspent balances for the previous Financial Years

<sup>12</sup> The percentage release is in relation to the Approved Budget for FY2022-23 and excludes the funds received in previous financial years.

<sup>13</sup> The percentage spent is in relation to the total available funds including the funds received in previous financial years.



### iii. Agro-Consortium funded to support Agriculture Insurance in Uganda

*The performance of the agriculture insurance could not be derived as the required data for analysis of the intervention between July to December 2022 was not provided despite the repeated efforts to obtain information from Agro-Consortium, the implementer of the Agriculture Insurance. Its recommended that the Auditor General audits operations of agriculture insurance as the reasons for non-disclosure of information to the monitoring team were not clear. The analysis hereafter is based on relatively old literature for the previous financial years that was accessed.*

**About the Scheme:** The Uganda Agricultural Insurance Scheme (UAIS) is a Public Private Partnership (PPP) arrangement in which the Government subsidizes Agricultural Insurance Premiums for farmers. This was established starting FY2016/17 as a 5-year pilot project whose main objective was to ensure that farmers in Uganda are protected against agricultural risks associated with losses arising from natural disasters; and also to attract additional financing to agricultural sector. GoU provided an annual contribution of Ug shs 5bn as a premium subsidy to agriculture insurance as a way of encouraging farmers to take up insurance cover for their crops and livestock.

However, after the 5-year period, it was deemed necessary to extend the UAIS for another 4 years from 2021/2022 to 2024/2025 to consolidate gains made under the first phase including bringing on board crops and animals expected under the PDM and to further rollout Agriculture Insurance to all regions of the country. Consequently, the memorandum of operationalization of UAIS was amended.

For its effectiveness, the scheme is implemented through financial institutions, direct farmer interface in their cooperatives, SACCOs, Area Cooperative Enterprises; and insurance companies' country wide. Uganda Insurers Association the private partner implementer of the scheme through the Agro Consortium insures the farmers. UAIS offers a variety of insurance products such as crop weather index insurance, livestock insurance, multi-peril crop insurance, poultry insurance aquaculture and plantation fire insurance. The Agro-Consortium uses an innovative satellite technology jointly with the districts average area yield determined over several years as a benchmark, to monitor farmers and the conditions affecting them. This country-wide scheme provides insurance premium subsidies to farmers of 50% for small scale farmers and 80% for the disaster prone areas (**Table 3.27**).

**Table 3.27: Premium subsidy allocation per farmer category**

Scale	Subsidy Provided
Small-scale farmers	50%
Large scale farmers	30%
Small and large scale farmers in highly risky and prone areas	80%

*Source: IRA*

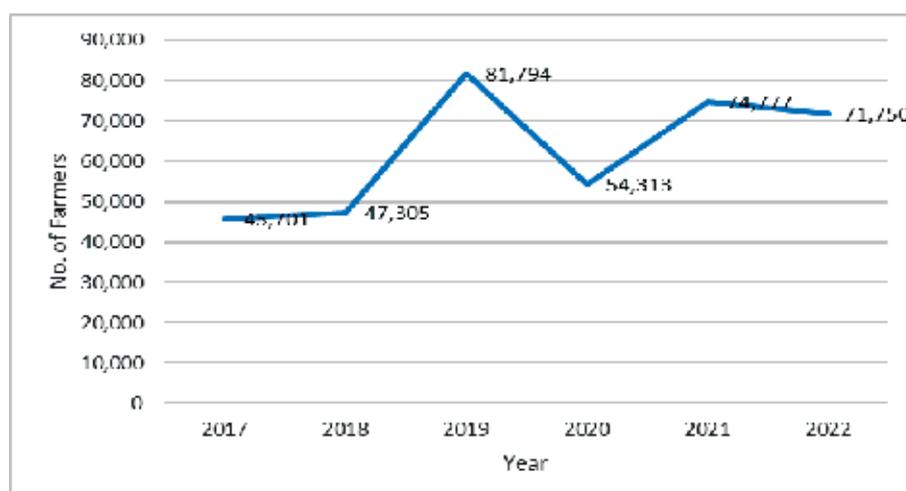
#### Performance

Overall enrolment of farmers to agriculture insurance fluctuated during the six-year period. There was systematic increase in uptake of agriculture insurance between 2017 and 2019.

The increase between 2017 and 2019 alone was by 36,093 farmers. The sharp decline in farmers enrolled onto agriculture insurance in 2020 was partly attributed to COVID-19 effects (**Figure 3.30**).



**Figure 3.30: Farmers enrolled for Agriculture Insurance**



A number of sensitization and awareness activities were carried out across all regions of the country, within the communities and partner financial institutions. For instance, Post Bank and Centenary Bank staff in various districts including Kitgum, Kapchorwa, Gulu among others were trained on agricultural financing, field farmer school network in Anaka were trained.

*The analysis of performance agriculture insurance between July and December 2022 was not done as information required from the agro-consortium and Insurance Regulatory Authority (IRA) was not readily available. Efforts to obtain the most up-to-date information were in vain.*

Claims were highest in 2021 and lowest in the earlier years partly because of limited knowledge about the operations of the scheme. **These however progressively increased with the highest claims recorded in 2021 (Table 3.28).**

**Table 3.28: Summary performance**

Year	2017	2018	2019	2020	2021	Jun-22	Total
No. of Farmers Insured	45,701	47,305	81,794	54,313	74,777	71,750	375,640
Sum Insured (Billions)	259	259	393	252	443	933	2
Premium (Billions)	5	8	12	11	19	15	73
Claim (Billions)	1	1	1	5	7	6	24
<b>Claims Ratio(%)</b>	<b>34%</b>	<b>20%</b>	<b>14%</b>	<b>49%</b>	<b>38%</b>	<b>38%</b>	<b>33%</b>

*Source: AIC Reports*

In relation to claims per product, most farmers who claimed were highest under Multi-Peril Crop Insurance, followed by Crop Weather Index Insurance partly due to high dependence on rainfall in season to support water for agricultural production. This category of claim was mainly under the farmers who accessed credit from financial institutions<sup>14</sup>. The lowest claim was recorded under farmers engaged in poultry. **(Table 3.29)**

<sup>14</sup> Received agriculture insurance based on the acquired agriculture a loan from financial institutions



**Table 3.29: Claim paid per product as at 30<sup>th</sup> June 2022**

Product	Claim Amount Paid ( Ug shs Billion)	% age of Claims Paid
Crop Weather Index Insurance	3,057,516,010	34
Livestock Insurance	346,580,988	4
Multi-Peril Crop Insurance	4,172,993,570	46
Poultry	49,314,132	1
Plantations	1,373,865,161	15
Total	9,001,269,860.34	100

Source: AIC Reports

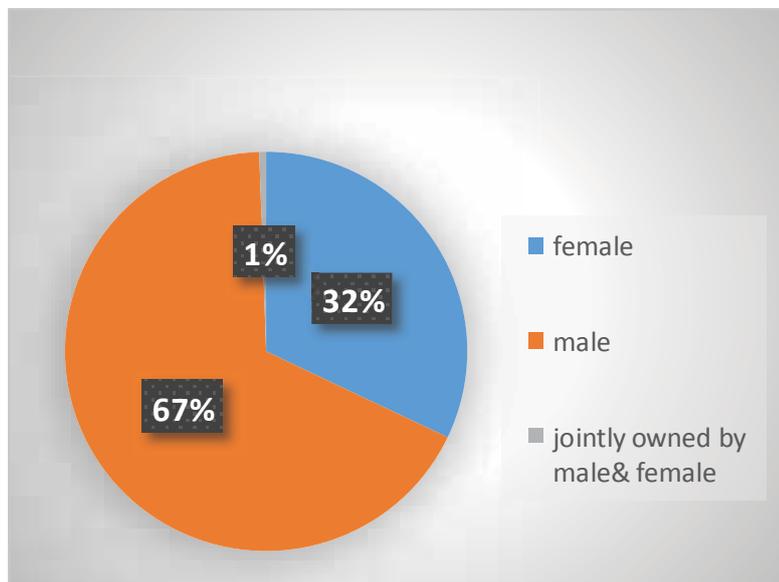
Equity analysis revealed that the farmers from the Western Uganda benefitted more from agriculture insurance compared to other regions with the least recorded in Central Uganda. (Table 3.30)

**Table 3.30: Regional Distribution of Agriculture Insurance Beneficiaries**

Region	Sum Insured	Premium	%age of premiums	No of Farmer	% age of farmers
Central	258,728,535,583	6,578,422,214	23.99	23,061	20
East	92,761,808,072	6,160,621,567	22.46	30,676	26
North	58,829,692,431	4,208,687,043	15.35	29,441	25
West	814,773,987,338	10,478,934,412	38.21	33,238	28
Total	1,225,094,023,424	27,426,665,236	100.00	116,416	100

Source: AIC Reports

**Figure 3.31: Gender analysis of insurance uptake as at June 2022**



Source: Author’s Analysis of IRA Data

Gender analysis revealed that the males had higher uptake of insurance than females and those jointly owned by male and females combined (Figure 3.31). This is attributed to low attendance of women in trainings.

Field findings revealed mixed results with some beneficiaries noting that the agriculture insurance improved their welfare due to compensation while others felt cheated mainly due to limited understanding of the operations of agriculture insurance. (Table 3.31)

**Table 3.31: Summary of the three case studies sampled for Agriculture Insurance**

Name	Location	Access modality	Remarks
<b>Mr. Chebet Milton</b>	Worya Village, Ngenge Sub-county in Kween District	Direct farmers interface from an agent in Sebei farmers Sacco	Planted 15 acres of maize but only insured 3 acres against drought and paid a premium of 4,900 Ug shs per acre. He however harvested 12 bags each of 100kg compared to the expected 60bags from the insured 3 acres due to drought.  <i>Despite making loses Mr. Chebet was not compensated. Key challenges were there was no farm inspections done before he paid the premium and after making loses and therefore didn't know how much his compensation would be.</i>
<b>The Youth Transformative Network</b>	Kween, Buko, Bulambuli and Kapchorwa	SACCO interface with the insurance agent	A total of 200 farmers subscribed under the weather index insurance. Farmers were majorly growing maize and beans. Farmers paid 20,500 per acre. Farmers made losses of 75% in season A and B, for both season A and B, farmers received their compensation of up to Ug shs 61 million and 83 million respectively.
<b>Wagagai Farmers Sacco</b>	Kasereem Village in Kapchorwa District	SACCO interface with Excel Insurance Company.	A total of 85 farmers were subscribed under the Weather Index Insurance.  There was no compensation for farmers despite making loses because AIC through its satellite readings inferred that farmers had a good season with bumper harvests.

**Source: Field Findings**

Relatedly, a number of farmers visited were engaged in other government programmes such as the ACF and UDC among others did not know about the agriculture insurance suggestive of how ineffective the marketing of the intervention has been.

### Challenges

- i. Limited awareness of the Agriculture Insurance Scheme.
- ii. Increased unpredictability of climatic conditions and weather.
- iii. Low involvement of women in the scheme.

### Recommendation

Mobilization of women engaged in agriculture needs to be done so as to make them aware of the benefits of agriculture insurance.

### 3.5.3 Conclusion

The performance of Agricultural Financing/Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity sub-programmes was good at 73%. The good performance was driven by the ACF that averaged at 93% attainment of outputs and outcomes. The UDC interventions poorly performed averaging at 39% attainment of outputs and outcomes. Access to agriculture insurance and knowledge about the government programme remains low and the modalities for accessing claims remains unclear to many farmers. Gender and equity disparities persist with the male benefiting more than females and Western and Central regions getting a bigger share of the interventions of agriculture financing compared to the North and Eastern Uganda respectively. *Access to data for analysis of performance of the agriculture insurance was not readily availed to the monitoring team.*



## Recommendations

- i) The MFPED and BoU should further restructure the block allocation to make it more intentional to ensure that the marginalized groups and regions benefit from the interventions.
- ii) The IRA, Agro-Consortium, and MFPED should review and restructure the marketing strategy for the product to ensure increased awareness including but not limited to devolving the insurance offices up to parish level.
- iii) The Office of Auditor General should carry out forensic and Value for Money (VFM) audits of the agriculture insurance implemented by the Agro-Consortium.

## 3.6 Institutional Strengthening and Coordination Sub-programme

### 3.6.1 Introduction

The sub-programme aims to strengthen institutional coordination for improved service delivery. Monitoring focused on the implementation of the Parish Development Model (PDM) under Public -Private dialogue guidelines developed (Parish Development Model) PIAP output.

### Performance

The Institutional Strengthening and Coordination Sub-programme performed poorly with only 27% of the planned targets achieved. The poor performance was occasioned by poor implementation of the PDM demonstrated by inadequate funding, partial completion of trigger processes especially enterprise selection and farmer selection d) lack of clear instructions and changing guidelines from different ministries, departments and agencies. In some districts, officers misunderstood the guidelines and spent funds in areas that were not authorized, leading to arrest and detention. Detailed performance is presented hereafter. *Refer to Annex 7 for details of sub-programme and intervention, and outputs performance.*)

### 3.6.2 Public -Private dialogue guidelines developed (Parish Development Model)

#### Introduction

The focus was on promoting Local Economic Development (LED) services through the development of guidelines and implementation of the PDM. The PDM is a GoU strategy for accelerating wealth creation and improving the quality of life of Ugandans through interventions in seven pillars: 1) Production, Storage, Processing and Marketing; 2) Infrastructure and Economic Services Development; 2) Financial Inclusion; 4) Social Services; 5) Mindset Change; 6) Parish Based Management Information System; and 7) Governance and Administration.



## Performance

Poor performance of the PDM implementation was noted. **As at 31<sup>st</sup> December 2022, full implementation of the PDM was not achieved by all parishes and inputs were not purchased** primarily due to: a) inadequate funding received by SACCOs; b) MFPED guidelines that deterred spending until further guidance; c) partial completion of trigger processes especially enterprise selection and farmer selection d) lack of clear instructions and changing guidelines from different ministries, departments and agencies. In some districts, officers misunderstood the guidelines and spent funds in areas that were not authorized, leading to arrest and detention.

A total of 6,197 (58.49%) parish chiefs out of the targeted 10,594 personnel were filled and recruitment for the remaining 4,370 positions was ongoing. Formation of Enterprise Groups and PDM Savings and Credit Cooperative Organization (SACCOs) was concluded. This involved disbursement of the Parish Revolving Funds to 7,019 (66.24%) PDM SACCOs out of 10,595 SACCOs across the country. Of these 5,457 PDM SACCOs were also set-up on the IFMIS.

**Readiness for implementation at all levels of the LG was estimated at 75%:** On average, each SACCO had received Ug shs 35 million<sup>15</sup> (35%) against the target of Ug shs 100 million. About 2 to 10 SACCOs in most parishes had either not received any funding or had got partial disbursement due to challenges associated with misspecification of SACCO names and account numbers.

Some SACCOs (2%) however did not receive their funds due to inconsistencies of the SACCO bank account names and those submitted to MFPED. Some visited districts (25%) scheduled piloting of the financial inclusion pillar using two PDM SACCOS from Urban and Rural areas.

By 31<sup>st</sup> December 2022, implementation was initiated only for two out of the seven pillars: Pillar 1) Production, Storage, Processing and Marketing and Pillar; 2) Financial Services. Funds were disbursed to districts and parishes under Pillar 1 and SACCO formation, setting of Governance structures and enterprise selection were largely completed under Pillar 2. Various versions of guidelines for implementing the PDM were disseminated with key stakeholders by the key implementing agency MoLG and other sector ministries.

None of the PDM SACCOS had extended credit to the qualifying PDM SACCO members as at 31<sup>st</sup> December 2022 as all the visited LGs were yet to introduce the approved signatories to the commercial banks. In addition, the training and eventual enrolment of members on to the Parish Development Model Management (PDM MIS) Information System; a precondition for the final access of funds by the qualifying PDM SACCO members has not commenced. *Further inquiry from the Ministry of ICT indicated that the ICT team awaited funding from MFPED to support the training and final roll out of the sixth Pillar of Parish Based Management Information System.*

In terms of utilization of implementation of the operational activities. Some districts such as Mubende disbursed funds for the Parish Development Committee through the sub-counties while others were yet to disburse the funds. Overall the visited districts provided trainings to PDM SACCOs in enterprise selection throughout the agriculture value chain, governance and accountability, conducted PDM SACCO first general meetings, and special general meetings among others.

<sup>15</sup> The Ug shs 35 million includes funds received in previous FY2021/22 and the Ug shs 25 million disbursed as at 31<sup>st</sup> December 2022 for this FY2022-23



**Key risks identified that may derail the programme:** a) possibility of misuse and mis-allocation of funds by SACCOs by implementing activities that are not PDM compliant due to unclear guidelines and lack of supervision mechanisms; b) possibility of high post-harvest losses after large harvests at farm level due to lack of storage, value addition and agro-processing facilities; c) possibility of farmers undertaking uneconomic or very small projects that do not address income and food security concerns due to the limited funding disbursed by parish. This could result also from the lack of clarity on processes and criteria for selecting beneficiary farmers, including how much each farmer should receive.

## Challenges

- i). Majority of farmers selected short term enterprises that required a low capital outlay and would fit within the PDM allocations. This disadvantaged prioritization of high value long term enterprises such as coffee, cocoa and tea which are among the country's strategic commodities.
- ii). Only two pillars (1 and 3) of the PDM were under implementation. Critical to prioritize the Parish Management System (Pillar 6) to enable the parish chiefs to collect data on the beneficiaries.
- iii). Inadequate knowledge and understanding of the PDM operations by majority of stakeholders due to rapidly changing guidelines and instructions from several MDAs. The focus of SACCOs was on spending the PDM funds and not spending as a revolving savings fund.
- iv). The PDM not integrated fully in district work plans and guidelines.
- v). Inadequate operational funds at district and SACCO levels to implement and supervise the PDM interventions.
- vi). Weak linkages between PDM and other supportive interventions such as irrigation, research and extension.
- vii). Lack of focus on the value chain approach for the enterprises that were prioritized.
- viii). Lack of operational funds to facilitate the District Production and Marketing Office to effectively implement the PDM activities. The funds disbursed to the District were appropriated for the Parish Development Committees leaving the DPOs office without funds for monitoring inspection and supervision. Worse still even the allocation for the PDC was noted to be meagre as it translated into Ug shs 250,000 per quarter.
- ix). The training and eventual enrolment of members on to the Parish Development Model Management (PDMMIS) Information System has not commenced and yet it's a precondition for the final access of funds by the qualifying PDM SACCO members. *Further inquiry from the Ministry of ICT indicated that the ICT team awaited funding to support the training and final roll out of the sixth pillar of Parish Based Management Information System.*
- x). The requirement to scan and attach documents on the PDMMIS including by-laws, resolutions, certificate of incorporation, minutes of the First Annual General Meeting was noted to be cumbersome for semi-literate majority members of the PDM SACCOs.
- xi). Inconsistencies in the data requirements affected performance of the PDM. The PDMMIS requires that leaders and members have a National Identification Number (NIN) and telephone contact which was NOT a must during the first data collection exercise. This implies a new



profiling and Kayunga which was ahead of the DLGs visited had re-profiled 22 out of the 71 PDM SACCOs. The key concerns were that some PDM members lacked NINs while others lacked mobile phones.

### 3.6.3 Conclusion

The performance of the Institutional Strengthening and Coordination Sub-programme was poor at 27% achievement of outputs. The poor performance was driven by the failed issuance of credit to the beneficiaries which left the funds idle on the PDM SACCO accounts. The key binding constraints relate to delayed roll out of the PDMMIS, inadequate funding.

#### Recommendations

- i). The MoICT should fast-track training and support enrolment of members on to the Parish Development Model Management Information System (PDMMIS) to facilitate access of funds to beneficiaries.
- ii). There is urgent need to devolve NIRA services to the sub-county to fast track accessing of the NIN.
- iii). The MFPED and PDM Secretariat should prioritize funding of the district PDM operational activities to support timely monitoring, inspection and supervision.
- iv). The grace period should be part and parcel of the PDM credit especially for the members involved in the primary agriculture/ Production and Productivity to allow for planting and harvest.



## CHAPTER 4: CONCLUSION AND RECOMMENDATIONS

### 4.1 Programme Conclusion

The performance of the Agro-Industrialization Programme was fair at 58% attainment of semi-annual targets. There was mixed performance, with two out of the five sub-programme falling below the 50% mark.

Specifically, the interventions related to the Parish Development Model attained a dismal 27% of the set targets. This was attributed to inadequate funding received by SACCOs; guidelines that deterred spending until further guidance; partial completion of trigger processes especially enterprise selection and farmer selection; lack of clear instructions and changing guidelines from different MDAs. In some districts, officers misunderstood the guidelines and spent funds in areas that were not authorized, leading to arrest and detention.

Access to agriculture markets both locally and internationally remained constrained respectively by poor road network amidst delayed completion of road infrastructure and poor post-harvest handling resulting into high levels of aflatoxins in the agriculture produce that do not meet international market standards.

The sub-programmes that exhibited good performance were led by the Agricultural Production and Productivity at 75%, followed by Storage, Agro-Processing and Value Addition at 74% and Agricultural Financing/Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity at 73%. The good performance was attributed in part to the availability of external financing and other activities such as agriculture research and technology generation whose execution depended less on the development budget which under performed as at 31<sup>st</sup> December 2023.

In relation to outcome attainment, the Agro-Industrialisation Programme attained on average 80% of the targets. The outcomes that recorded under performance included: percentage change in yield of priority agricultural commodities partly due to soil exhaustion, fake fertilizers on the market, and proportion of households' dependent on subsistence agriculture as a main source of livelihood (%). As at 31<sup>st</sup> December 2022, 39 percent of households (3.5 million) continued in the subsistence economy compared to 61 percent (5.4 million) in the non-subsistence economy in 2019/20. Of the 3.5 million households in the subsistence economy, 62 percent were engaged mainly in subsistence agriculture.

### 4.2 Overall Challenges

- i) Limited access to Water for Agriculture Production especially among the smallholder farmers.
- ii) Inadequate staffing especially extension workers in the lower local governments.
- iii) Gender and equity disparity in access and use of agricultural services in the programme, with males, the Central and Western regions respectively dominating their counterparts.
- iv) Limited infrastructure such as road network, ware houses, silos, markets among others to effectively and efficiently support proper post-harvest handling and resultant trade activities.
- v) Limited visibility and uptake of government programmes partly due to poorly designed marketing strategies including ineffective use of the mass media and the government available air time across all information networks.



### 4.3 Recommendations

- i) The MAAIF and MWE and other Agro-industrialization MDAs should fast-track implementation of Water for Production interventions through addressing the core binding constraints to access especially among the smallholder farmers.
- ii) The MAAIF and LGs should prioritize recruitment and equipping extension workers with transport and facilitation especially in the newly created administrative units (cities, districts and sub-counties).
- iii) Strengthen punitive measures for noncompliance to gender and equity commitments.
- iv) The MFPED should strengthen budget analysis and prioritization in the Agro-Industrialization Programme to ensure that the backward and forward linkages along the agriculture value chain are funded to avoid wastages that result from lack of complimentary services such as markets, roads, and silos among others.
- v) The Office of the President in collaboration with the Office of the Prime Minister should institute and implement a policy to carry out mass media campaigns including using the allocated government air time available across all information networks to market and publicize government programmes.



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## ANNEXES

### Annex 1: Planned Outputs in the PIAP that were monitored for the budget period FY 2022/23 Semi-Annual

	Sub-programme	Total Outputs in PIAP	No of Outputs in PIAP Monitored	Outputs monitored
1	Agricultural Production and Productivity	36	29	<ul style="list-style-type: none"> <li>• Demand driven agriculture technologies developed</li> <li>• Research-extension farmer linkages developed and strengthened</li> <li>• Animal breeding stock multiplied and distributed to farmers' country wide for cattle, poultry, goats, pigs, fish</li> <li>• Animal breeding, production, administrative units and research facilities constructed and equipped</li> <li>• Innovative Extension models service delivery models scaled up</li> <li>• New irrigation schemes constructed to completion.</li> <li>• 23 new irrigation schemes constructed.</li> <li>• Aquaculture production increased</li> <li>• Disease diagnosis and control capacity and facilities developed and equipped</li> <li>• Assorted sets of Agriculture mechanization equipment acquired and deployed</li> <li>• Coffee productivity enhanced</li> <li>• Commodity-based platforms/Forum and commercialization approaches established at different levels (National and district)</li> <li>• Dams and valley tanks for livestock watering constructed</li> <li>• Farm level production increased</li> <li>• Farmer organizations strengthened</li> <li>• Enhanced efficiency in inputs distribution</li> <li>• Farmers sensitized on productivity enhancement technologies</li> <li>• Medium-scale irrigation schemes and Dams and valley tanks for livestock watering constructed</li> <li>• Multi-purpose water development schemes including valley dams, valley tanks developed</li> <li>• New medium scale irrigation schemes and Dams and valley tanks for livestock watering constructed.</li> <li>• New medium-scale irrigation schemes, dams and valley tanks developed.</li> <li>• New multi-purpose water development schemes constructed.</li> <li>• Oil palm seedling nursery in Buvuma established (ha)</li> <li>• Practical training centres established</li> <li>• Quality inputs on the market</li> <li>• Small-scale irrigation systems constructed</li> <li>• Solar powered small-scale irrigation systems developed.</li> <li>• Solar powered water supply and small-scale irrigation systems developed. Sustainable management institutions for effective utilization of Dams and valley tanks established.</li> </ul>



	Sub-programme	Total Outputs in PIAP	No of Outputs in PIAP Monitored	Outputs monitored
2.	Storage, Agro-processing and Value Addition	6	6	<ul style="list-style-type: none"> <li>Value addition equipment acquired</li> <li>Capacity of cooperatives, communities, farmers and traders developed in post-harvest handling and storage including; business management; value addition; quality requirements and principles of cooperative movements</li> <li>Cooperative societies, communities supported with cleaning, drying, grading and processing equipment including fertilizer store</li> <li>Dairies and milk processing plants established</li> <li>Storage and post-harvest handling facilities established at a Parish level</li> </ul>
3	Agricultural Market Access and Competitiveness	15	9	<ul style="list-style-type: none"> <li>Certification laboratory facilities renovated, built and equipped</li> <li>Certification permits for products and firms issued.</li> <li>Coffee traders, primary processors, roasters, brewers, exporters inspected</li> <li>Ugandan coffee profiled and branded for specialty markets.</li> <li>Modern Agricultural markets constructed in strategic locations and infrastructure to facilitate their effective performance built</li> <li>Product markets for Uganda's key products mapped, profiled and market frameworks with countries of export interest negotiated</li> <li>More community access roads constructed/extended to productive areas</li> <li>Value chain actors and staff trained</li> <li>Warehouses standardized, incentivized for trading and awareness created under the WRS and the CE</li> <li>A national strategic food reserve established at the Regional Farm Service Centres</li> </ul>
4	Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity (Agricultural Financing)	5	4	<ul style="list-style-type: none"> <li>Government owned financial institutions capitalized<sup>16</sup></li> <li>A short term development credit window for MSMEs set up<sup>17</sup></li> <li>Credit guarantee scheme in place including Agriculture insurance</li> <li>Increased availability of borrower information</li> </ul>
5	Institutional Strengthening and Collaboration	19	3	<ul style="list-style-type: none"> <li>Institutional coordination &amp; management strengthened</li> <li>Public -Private dialogue guidelines developed</li> <li>Regular collection and dissemination of agriculture data undertaken</li> </ul>
<b>Total Outputs</b>		<b>81</b>	<b>51</b>	
<b>% of Total Outputs</b>			<b>63%</b>	

<sup>16</sup> PIAP output under the Strengthening Private Sector Institutional and Organizational Capacity sub programme under Private sector development

<sup>17</sup> This PIAP output belong to Enabling Environment sub programme under private sector development



## Annex 2: Districts and Entities Monitored for Semi-Annual FY 2022-2023

Sub Programme	Sub-Sub programme/ project	Sampled districts/ entities
Agricultural Production and Productivity	UgIFT (Uganda Intergovernmental Fiscal Transfer)	Masaka, Hoima, Kayunga, Bushenyi, Sembabule, Mukono, Jinja, Tororo, Butaleja, Mityana, Mubende, Kamuli, Iganga, Bukedea, Soroti
	AVCP (Agriculture Value Chain Development Project)	Kasese, Kyegegwa, Masindi Kamwenge, Sembabule, Buwama, UNBS (Uganda National Bureau of Standards)
	Large Scale Irrigation Systems	Regional offices-MWE (Ministry of Water and Environment) Mbale, Doho I, Doho II, Ngenge Irrigation Scheme, Rwenganju Irrigation Scheme, Mubuku Irrigation Scheme, Oyam Tochi Irrigation Cooperative Association, Acomai Irrigation Scheme - Bukedea
	NARO (National Agriculture Research Organization)	NARO (National Agricultural Research Organisation) secretariat, NALIRRI (National Livestock Resources Research Institute), NACORI (National Coffee Research Institute)-Kituzi, Rwebitaba ZARDI (Zonal Agricultural Research Development Institute) Kabarole; NALIRRI (National Livestock Resources Research Institute) and NACRRI (National Crops Resources Research Institute) Namulonge; Arua ZARDI (Zonal Agricultural Research Development Institute); Ngetta ZARDI (Zonal Agricultural Research Development Institute) Lira; Bulindi ZARDI (Zonal Agricultural Research Development Institute) Hoima; Mbarara ZARDI (Zonal Agricultural Research Development Institute), Kachwekano ZARDI (Zonal Agricultural Research Development Institute) Kabale, NARL (National Agricultural Research Laboratories) Kawanda; Maruzi Ranch-Apac, Lusenke Stock Farm –Kayunga, Mubende, Nshara Ranch, Sanga Field Station-Mbarara, NAGRC&DB (National Animal Genetic Resources Centre and Data Bank), Rushero Field Station-Mbarara
	CDO (Cotton Development Organization)	CDO headquarters-Midwestern Region-Kasese, CDO (Cotton Development Organisation)- Lira, Gulu, Nebbi, Pader
	UCDA (Uganda Coffee Development Authority)	NACORI (National Coffee Research Institute) Kituzi, Analytical laboratory-Lugogo, Bushenyi(South Western Region), Kabarole (Rwenzori region), Hoima (Western Region), UCDA headquarters, Gulu (Mid Northern Region) , Arua (West Nile Region) ,
	Feed and Seed	Aswa I Ranch-Pader, Lusenke Stock Farm- Kayunga, Bulindi ZARDI- Hoima, Rwebitaba ZARDI (Zonal Agricultural Research Development Institute), Mbarara ZARDI (Zonal Agricultural Research Development Institute), Nshara Ranch, Rushegyere Field Station, Arua ZARDI (Zonal Agricultural Research Development Institute)
	NAADS (National Agriculture Advisory Services)	Mityana, Gomba, Kyegegwa, Kyenjojo, Kasese Kiboga, Tororo, Nwoya, Kamuli, Luuka, Bukedea, Mbale
	AECS/PMG (Agriculture Extension Services)	Mubende, Mukono, Kyenjojo, Hoima, Masindi, Kalangala, Buvuma, Kayunga, Tororo, Gomba, Amuru, Nebbi, Arua, Yumbe, Mbale, Omoro Jinja, Kiboga, Masaka, Mpigi, Mityana, Kyegegwa, Kabarole, Bushenyi, Kasese, Sembabule
PESCA (Promoting Environmentally Sustainable Commercial Aquaculture)	Kalangala, Kajjansi, MAAIF	



Sub Programme	Sub-Sub programme/ project	Sampled districts/ entities
	NAGRC & DB (National animal genetic resources center and data bank)	Lusenke Stock Farm-Kayunga, Jinja, Masaka, Kiboga, MAAIF, NEC (National Enterprise Corporation) farm-Katonga, Mbarara ZARDI (Zonal Agriculture Research Development Institute), Nshara Ranch, Sanga Field Station, Ruhengyere Field Station, Kachwekano ZARDI (Zonal Agricultural Research Development Institute), Maruzi- Apac , Nwoya, Arua, Kasolwe Farm- Kamuli, Luuka, Njeru Stock Farm-Buikwe.
	Labour Saving Technologies	Namalere Mechanization shop, Mechanization center Buwama, Namulonge, Apac, Bukedea, Butambala
	NOPP (National Oil Palm Project)	Kalangala, Buvuma, MAAIF
	Meat Export Project	NEC (National Enterprise Corporation) farm Kyankwanzi, NEC Farm Katonga
	Goat Rollout Project	Mubende, Gomba, Nakaseke, Kyankwanzi, Nakasongola, Sembabule, Wakiso
	DDA (Diary development Authority)	Nema Mixed Farm- Kamwenge, Fort portal, NARILI (National Livestock Resources Research Institute) and NACORI (National Coffee Research Institute)-Namulonge
Storage, Agro-processing and Value Addition	ACDP (Agricultural Cluster Development Project)	UNBS (Uganda National Bureau of Standards), UDC Nwoya, CDO (Cotton Development Organisation) offices, Fine Spinners-Bugolobi, Nytil, Yumbe, Masindi, Mubende, Kyegegwa, Kyenjojo, Bushenyi, Hoima, Iganga, Butaleja, Buvuma, Kitagwenda, Kasese, Kawanda, Omoro, Amuru, Nebbi, Arua, Soroti, Mbale
	AVCP (Agriculture value chain development project)	UNBS, Kyegegwa, Kitagwenda, Western regional offices, Gulu, Oyam, Nwoya, Yumbe, Mbale, Bukedea
	UDC (Uganda Development Corporation)	Nwoya, Kabarole, Kyenjojo, Yumbe, Kabale, Luuka, Soroti
	CDO (Cotton Development Organization)	CDO-Pader, Fine Spinners-Bugolobi, CDO headquarters, CDO-Masindi, Southern Range Nyanza, Gulu, Lira, Iganga, North Eastern Regional Offices, Nytil
	UCDA ( Uganda Coffee Development Authority)	Bushenyi, NACORI ((National Coffee Research Institute)-Kituzi, Analytical Laboratory-Lugogo, Mbale
	NARO (National Agriculture Research Organization)	NALIRRI (National Livestock Resources Research Institute) and NACORI (National Coffee Research Institute)-Namulonge, Bulindi ZARDI (Zonal Agriculture Research Development Institute)- Hoima
	Livestock and Disease Control Project	Masaka, Jinja , Kiboga, Hoima, Masindi ,Tororo, Mbale, Kyenjojo, Nebbi, Mukono, Arua, Bukedea, Soroti
	NOPP (National Oil Palm Project)	Kalangala, Buvuma, MAAIF
Agricultural Market Access and Competitiveness	UNBS	Wakiso
	MAAIF	Kampala
	CDO	Kasese (South western), Gulu (East and West Acholi), Lira (West Nile), Hoima (Mid-west), Iganga (Busoga) CDO headquarters
	UCDA	UCDA headquarters, Analytical laboratory- Lugogo



Sub Programme	Sub-Sub programme/ project	Sampled districts/ entities
	MoLG	Masaka, Kayunga, Mpigi, Mukono, Kabale, Kasese, Masindi, Tororo, Gulu, Butaleja, Mityana, Mubende, Kyenjojo, Sembabule, Gomba, Omoro, Amuru, Arua, Luuka, Iganga, Bukedea, Soroti, Mbale, Kiboga, Jinja
Enabling Environment and Strengthening Private Sector Institutional and Organizational Capacity (Agricultural Financing)	ACF (Agriculture Credit Facility)	Bank of Uganda, Masaka, Mukono, Wakiso, Iganga, Butambala, Mbarara, Masindi, Apac, Lira, Soroti
	UDC	Kabarole, Rwenzori regional offices, Kabale
	Agricultural Insurance	(AIC) Agro Consortium. IRA (Insurance Regulatory Authority) Kapchorwa, Kween
Institutional Strengthening and Coordination	PDM	Masaka, Kayunga, Mpigi, Mukono, Kabala, Kasese, Masindi, Tororo, Gulu, Butaleja, Mityana, Mubende, Kyenjojo, Sembabule, Gomba, Omoro, Amuru, Arua, Luuka, Iganga, Bukedea, Soroti, Mbale Kiboga, Jinja

**Source: Author's Compilation**



### Annex 3: Performance of the Agricultural Production and Productivity Sub-programme as at 31st December 2022

Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Fish mirror carp seed produced (number)	20	19.3	100	12500	0.00	0.00	Target missed
50,000 fish seed (25,000 Labeo and 25,000 Barbus) procured for the aquaculture industry (number)	45	22.2	100	50000	8534	76.81	Fair progress
Training materials developed and farmers trained in Best Aquaculture Management practices (number of farmers)	570	12.9	62	250	100	100	Fully Achieved
Bush-clearing done on NAGRC&DB farms (number of bush clearing interventions)	21,549	100	74	17	14	82.35	Substantially achieved
Maize and soya seed and agro-chemicals procured and used and weeding operations undertaken on NAGRC&DB farms (number of interventions)	16,766	100	57	6	3	50.00	Partially achieved
Farm access roads constructed on NAGRC&DB farms (km)	6,402	100	78	65.80	59.22	90.00	Substantially achieved
30 F1 hybrid seeds of Robusta coffee constituted at NACORI (No of varieties)	10	100	100	30	36	100.00	Fully Achieved



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Coffee lotion and 2 creams teste for UNBS conformity at NACORI(No. of samples)	10	100	100	2.00	2.00	100.00	Fully Achieved
At least 2 DUS /NPT trials established in 5 locations at NaCCRI	137	100	100	2.00	2.00	100.00	Fully Achieved
Assorted seed technologies planted by NARO under the Food and Animal Feed Security Project (acres established)	15,531	100	40	10000	2560	25.60	Partially achieved
Residential staff houses constructed at NALIRRI Maruzi (number of units)	750	84.4	100	8.00	6.00	88.88	Partially achieved
Guest house/ hostel renovated at Abi ZARDI (number)	440	100	100	1.00	0.00	0.00	
Multi-purpose office blocks, Aflasafe Facility, Multi-Purpose Vaccine Facility, Calf Barn and Access Roads constructed and milk parlour rehabilitated at NALIRRI Nakyesesa (number of facilities)	16,133	147.5	79	6.00	5.40	61.03	Partially achieved
Water reticulation and extra works on mini offices at NALIRRI Maruzi (number of facilities)	1,780	97.5	51	2.00	1.36	69.71	Partially achieved



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Administration block constructed at NARL (number)	1,507	142.9	93	1.00	0.93	65.10	Substantially complete
The e-extension system rolled out and deployed in the 57 districts of the project area for use by farmers to access e-advisories under ACDP	553	100	17	57	21	36.84	Partially achieved in 21 out of the 57 districts
Trainings conducted in GAPS in 10 regions of Uganda (Number of trainings )	3,221	25.7	100	1344	672	100	Fully achieved
Capacity building trainings working with UCRA on National Coffee law at tertiary level conducted (Number of trainings )	12	23.1	100	10	3	100	Fully achieved
Training on value addition to adopt appropriate technologies at primary and secondary levels in 8 regions (Number of trainings )	7	27.6	100	8.00	4.00	100	Fully achieved
Capacity of cooperatives, communities, farmers and traders developed in post-harvest handling and storage (Number of trainings )	336	17.9	100	1500	750	100	Fully achieved



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Innovative Extension models service delivery models scaled up (Number of trainings )	493	56.3	100	4938		0	Target missed
Elementary Basic Quality Control (EBQC) trainings conducted for primary level players (Number of trainings )	14	29.1	100	5	1	68.77	Partially achieved
Farmers/farmer groups trained (Number of trainings )	965	55.9	81	148600	142428	100	Achieved
Farmer mobilized and sensitized for increasing production and quality (No. of Demo Plots/No. of Field visits/ Activities)	3,170	50.4	96	5920	5765	100	Fully achieved
Targeted extension services (No. of extension workers)	1,394	49.5	64	1439	1349	100	Substantially achieved
Facilitate 1,185 PCDAs for training of coffee farmers in 1,185 coffee parishes of Central, Greater Masaka, Eastern, South west , Western, Elgon, Rwenzori and Northern	568	-	-	1185	0	0	Target missed
Translate and print 4,938 training guides and/or charts for PCDAs to train farmers in Central , Greater Masaka, Eastern, South west, Western, Elgon, Rwenzori, Northern, Kigezi and West Nile.	493	56.3	100	4938	0	0	Target missed



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Construction of Irrigation scheme Acomai to enhance access to water and supervision undertaken	15,919	100	49	50	19	38	Partially done. Works ongoing
Aquaculture production increased- Construction of the Mwena Aquaculture Park fence in Kalangala commenced	535	100	100	1	0	0	Missed targets
Aquaculture production increased (Fish species - Nile Perch, Tilapia and small fisheries in the major and minor water bodies preserved. This will involve 50% youth, women and PWD ) (Assorted)	80	100	100	1.00	1.00	100	Fully achieved
Fisheries Quality Assurance Department Activities supported Number	89	100	100	10	10	100	Fully achieved
Assorted sets of Agricultural Mechanization equipment acquired and deployed(% progress)	34,500	44.9	90	100	40	89.03	Partially achieved



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Procure and distribute 666,667 CWDr mature plantlets distributed to farmers for establishment of large scale commercial farms & Mother gardens in South West, Western, Eastern, Greater Masaka, Rwenzori & Central.(Number of CWDR plantlets)	1,000	100	-	666,667	11,607,982	100	Fully achieved
Procure and distribute 3,070,000 Arabica coffee seedlings for establishment of medium and large scale commercial farms in South West (1,000,000); Rwenzori (1,000,000); Elgon (1,070,000) to coffee farmers with special consideration to disadvantaged groups like the disabled (Number of Arabica seedlings )	10,745	100	-	3070000	15992706	100	
Valley dams and valley tanks constructed(% completion)	4,000	43.3	35	100	40	92.44	Partially achieved
Macadamia seedlings procured and distributed (Number of seedlings )	2,695	42.9	100	350000	150000	100	Fully achieved



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical performance Score (%)	
Hass avocado seedlings procured and distributed (Number of seedlings )	7,083	40	100	833333	333000	100	Fully achieved
Sunflower seedlings procured and distributed (Kgs)	1,499	66.7	100	74971.00	50000.00	100	Fully achieved
Soya bean seedlings procured and distributed (Kgs)	1,248	100	100	499,588	499,588	100	Fully achieved
Procure seed dressing chemical - 146000 units of pesticides .(Number of units)	2,190	164.2	100	146,000	239,766	100	Fully achieved
Organize distribution of additional production inputs; 50 Mt of fertilizers (MT)	1	646	100	50	323	100	Fully achieved
Procure 1,000 pumps (Number of pumps)	50	251.9	100	1,000	2,519	100	Fully achieved
Oil palm seedlings procured (Number of seedlings)	2,549	100	100	60,000	70,000	100	Fully achieved
Hectares of smallholder oil palm planted in Buvuma District (Number of hectares)	5,097	100	100	75	159.89	100	Fully achieved
Farmers supplied with inputs under E-voucher of ACDP(No)	26,394	100	46	56,439	439,16	77.81	Partially achieved
<b>Average Output Performance</b>						<b>75.83</b>	<b>Good performance</b>



#### Annex 4: Performance of the Storage, Agro-processing and Value Addition Sub-Programme by 31st December 2022

Output	Financial Performance			Physical Performance			Remarks
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Land acquired and Fertilizer store established in Kavuma under the National Oil Palm Project(% completion)	5,000	42	100	100	30	71.43	Works ongoing. Await approvals from NEMA for Environmental Social Impact Assessment
Machinery acquired and maintained (generators, 1 switch gear & 1 gravity grader. 2. Monitor supply and delivery of generators, switch gear & gravity grader to support value cotton value addition under Cotton Development Organization (% completion)	1,710	34	28	100	50	100	Works substantially completed.
Landscaping and paving works at the Pader Station undertaken. Servicing and maintenance of 2 High-Volume Instrument (HVI) cotton testing machines at Cotton undertaken. (% completion)	177	33	90	100	80	100	Works substantially completed.
Value addition equipment for Beans procured, installed and commissioned with support from ACDP (% completion)	6,907	100	95	100	51	51	20 out of the 39 facilities were operational
Value addition equipment for cassava procured, installed and commissioned with support from ACDP (% completion)	11,073	100	80	100	46	46	25 out of 54 facilities were operational.
Value addition equipment for coffee procured, installed and commissioned with support from ACDP (% completion)	22,962	100	88	100	48	48	48 out of 101 facilities were operational



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget (Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Value addition equipment for maize procured, installed and commissioned with support from ACDP (% completion)	23,600	100	84	100	44	44	51 out of 114 facilities were operational
Value addition equipment for Rice procured, installed and commissioned with support from ACDP (% completion)	9,591	100	83	100	57	57	28 out of 49 facilities were operational.
Two coffee hullers for Harugale Cooperative society & Ntandi Cooperative society procured, Delivered and installed in Bundibugyo with support from NAADS under Agriled (% completion)	330	100	100	100	50	50	Delivery and installation incomplete due to lack of electricity
Two coffee huller shelters for Harugale and Ntandi Cooperative societies including wash rooms constructed in Bundibugyo with support from NAADS under Agriled (% completion)	591	100	100	100	100	100	Civil works substantially complete.
Two maize mills for Rubalika Bataka, Kakooga Satellite store) supplied and installed in Bunyangabu with support from NAADS under Agriled (% completion)	278	100	100	100	50	50	Equipment procured but not yet installed due to lack of shelter. The beneficiary group prefers to use existing structures for grain storage.
One Rice mill for Kakooga Rice growers supplied and installed in Bunyangabu with support from NAADS under Agriled (% completion)	85	100	100	100	50	50	Equipment procured but not yet installed due to lack of shelter. The beneficiary group prefers to use existing structures for grain storage.



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
2 milk coolers of 3000 liter capacity with backup generators procured and installed for Hakibaale and Ruteete cooperatives in Kabalore with support from NAADS under Agriled (% completion)	490	100	100	100	90	90	Equipment delivered, installed and commissioned. But not in use
2 slabs for installation of the 2 containerized milk coolers constructed for Hakibaale and Ruteete Cooperatives in Kabalore with support from NAADS under Agriled (% completion)	58	100	100	100	100	100	Civil and electro-mechanical works complete.
UHT long life machine for Tooro Dairy Cooperative Procure milk quality testing equipment - Lactometers, Lactoscans (Hakibaale and Ruteete) with support from NAADS under Agriled (% completion)	1,153	100	100	100	90	90	Equipment delivered, installed and commissioned. But not in use due limited working capital among the group beneficiaries
Maize mill structure for Nkoma Abateganda Farmers Group completed in Kamwenge with support from NAADS under Agriled (% completion)	244	100	100	100	90	90	Civil works substantially complete.
Maize milling Equipment for Nkoma Abateganda Farmers Group in Kamwenge with support from NAADS under Agriled (% completion)	139	100	100	100	65	65	Equipment procured awaiting installation partly due lack of access to grid electricity



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget (Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
3 milk coolers and matching generators - 3000 ltrs (Kamwenge Dairy Farmers in Kahunge Sub County, Kabaranga Dairy Farmers' Cooperative, Katembwe Dairy Farmers) supplied and installed in Kamwenge with support from NAADS under Agriled ( <b>% completion</b> )	736	100	100	100	80	80	Equipment delivered awaiting installation.
One (1) milk coolers and matching generator-5000Ltrs capacity supplied and installed for Bwitankanja Dairy Farmers in Nkoma Sub county with support from NAADS under Agriled ( <b>% completion</b> )	303	100	100	100	80	80	Equipment procured awaiting installation.
Milk processing and packaging Equipment for NEMA MIXED FARFM supplied in Kamwenge with support from NAADS under Agriled ( <b>% completion</b> )	454	100	100	100	90	90	Equipment delivered awaiting installation and subsequent commissioning
Maize mill shelter for Motomoto Group constructed in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	244	100	100	100	90	90	Civil works substantially complete.
One feed mill shelter constructed for Motomoto group in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	244	100	100	100	95	95	Civil works substantially complete.
Two maize storage facilities and Kiburara Millers and Motomoto Group sites constructed with support from NAADS under Agriled ( <b>% completion</b> )	622	100	100	100	90	90	Civil works substantially complete.
Fish handling shades at the landing sites of Hamukungu on lake George and and Katwe Kabatoro TC on Lake Edward completed with support from NAADS under Agriled ( <b>% completion</b> )	560	100	100	100	95	95	Civil works substantially complete.



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
One maize mill for Motomoto (one ton per hour processing line) in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	278	100	100	100	50	50	Equipment procured awaiting installation partly due lack of access to three phase grid electricity
One feed mill (half a ton per hour) Supplied, installed and tested in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	118	100	100	100	50	50	Equipment procured awaiting installation partly due lack of access to three phase grid electricity
57 motorized coffee pulpers (800kg of cherie per hour) procured, supplied, installed and tested in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	2,232	100	100	100	95	95	Delivered, installed and commissioned. The utilization was suboptimal due to seasonality of the crop.
2 Maize mill shelters for Nyakera Twimukye Group and Buhumuro Traders Association in Bukurungo T/C and Kanara Sub County constructed in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	489	100	100	100	90	90	Civil works substantially complete.
Structures for Coffee Hullers with modern solar dryers for Nganiko Coffee growers and processors in Nyabbani S/C, Kabujogera Coffee Farmers Group in Kabujogera T/C and Buhanda Coffee Farmers Group in Buhanda Sub-county constructed in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	887	100	100	100	90	90	Civil works substantially complete.



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget (Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
2 bulking stores for Nyakera Twimukye Group and Buhumiro Traders Association in Bukurungo T/C and Kanara Sub-county constructed in Kasese with support from NAADS under Agriled ( <b>% completion</b> )	622	100	100	100	90	90	Civil works substantially complete.
2 maize mills for Nyakera Twimukye Group in Bukurungo T/C and Buhumiro trader's association in Kanara Sub County constructed in Kasese ( <b>% completion</b> )	278	100	100	100	50	50	Equipment procured. Awaiting delivery, installation and commissioning.
Coffee hullers with solar driers for Nyabbani S/C, Kabujogera Coffee Farmers Group in Kabujogera T/C and Buhanda Coffee Farmers Group in Buhanda Sub-county delivered with support from NAADS under Agriled ( <b>% completion</b> )	495	100	100	100	50	50	Equipment procured. Awaiting delivery, installation and commissioning.
Maize Mill with sorting and grading facilities Kyegegwa Satellite Store with support from NAADS under Agriled ( <b>% completion</b> )	244	100	100	100	90	90	Substantially completed.
One feed mill shelter for Kyegegwa Satellite Store in Kyegegwa with support from NAADS under Agriled ( <b>% completion</b> )	244	100	100	100	90	90	Substantially completed.
One standard rodent free satellite storage facility in Kigambo constructed in Kyegegwa ( <b>% completion</b> )	311	100	100	100	90	90	Substantially completed.



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Maize Mill for Kamugenyi Kweterana SAACO in Kigambo and Tweheyo SACCO-Kyegegwa statelite store with support from NAADS under Agriled supplied and installed ( <b>% completion</b> )	278	100	100	100	50	50	Equipment procured. Awaiting delivery, installation and commissioning.
One feed mill (half a ton per hour) with support from NAADS under Agriled procured, supplied, installed and tested ( <b>% completion</b> )	118	100	100	100	50	50	Equipment procured. Awaiting delivery, installation and commissioning.
4 milk coolers/chilling facilities – 3,000ltrs Mirembe, Kayonza, Karwenyi, Mpara and Kasasa with support from NAADS under Agriled supplied and installed( <b>% completion</b> )	981	100	100	100	80	80	Equipment procured and installation was due to commence.
Construction of 4 slabs for the 4 containerized milk coolers with support from NAADS under Agriled ( <b>% completion</b> )	116	100	100	100	50	50	Works ongoing.
Construction of the coffee huller Shelter - Katooke with support from NAADS under Agriled ( <b>% completion</b> )	295	100.0	100	100	90	90	Civil works substantially complete.
Coffee huller Shelter - Bufunjo constructed in Kyenjojo with support from NAADS under Agriled ( <b>% completion</b> )	295	100	100	100	90	90	Civil works substantially complete.



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget (Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Coffee processing equipment (coffee huller) in Katooke and Bufunjo in procured and installed Kyenjojo with support from NAADS under Agriled (% completion)	330	100	100	100	50.00	50	Equipment procured and installation was due to commence.
<b>Total</b>	<b>96,186</b>	<b>95</b>	<b>88</b>				
<b>Average Output Performance</b>						<b>74.22</b>	<b>Good performance</b>

*Source: Field Findings*



Annex 5: Performance of Agricultural Market Access and Competitiveness Sub-programme by 31st December 2022

Output	Financial Performance				Physical Performance				Remark
	Annual Budget (Ug shs million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)			
29 km of road network in Kalungu constructed/rehabilitated (% completion)	2,469	100	97	100	98	98	Works substantially completed		
59.7 km of road network constructed or rehabilitated in Iganga & Bugweri (% completion)	2,917	100	89	100	95	95	Works substantially completed		
56.6 km of road network constructed or rehabilitated in Amuru (% completion)	2,170	100	87	100	95	95	Works substantially completed		
54.12 km of road network constructed or rehabilitated in Ntungamo (% completion)	3,095	100	84	100	70	70	Works ongoing but behind schedule		
44.6 km of road network constructed or rehabilitated in Nebbi and Packwach (% completion)	1,656	100	78	100	98	98	Works substantially completed		
29.4 km of road network constructed or rehabilitated in Kyotera (% completion)	1,014	100	30	100	100	100	Works complete and under the Defects Liability Period		
17.7 km of road network constructed or rehabilitated in Masaka (% completion)	915	100	-	100	100	100	Works complete and under the Defects Liability Period		
8km of road network constructed or rehabilitated in Mpigi (% completion)	936	100	-	100	0	0	Works are yet to commence		
48.5km of road network constructed or rehabilitated in Rakai (% completion)	722	100	-	100	100	100	Works substantially completed		
11km of road network constructed or rehabilitated in Kakumiro (% completion)	599	100	-	100	100	100	Works substantially completed		
26.7km of road network constructed or rehabilitated in Kasanda and Mubende (% completion)	1,725	100	30	100	40	40	Works ongoing but behind schedule		
14.5km of road network constructed or rehabilitated in Kibale (% completion)	1,170	100	27	100	60	60	Works ongoing but behind schedule		



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs million )	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
8.5km of road network constructed or rehabilitated in Kyenjojo and Kyegegwa ( <b>% completion</b> )	1,153	100	35	100	0	0	Works are yet to commence
10.8km of road network constructed or rehabilitated in Bugiri ( <b>% completion</b> )	967	100	-	100	30	30	Works ongoing but behind schedule
15.3km road network constructed or rehabilitated in Namutumba ( <b>% completion</b> )	800	100	-	100	50	50	Works ongoing but behind schedule
18.3km road network constructed or rehabilitated in Butaleja and Tororo ( <b>% completion</b> )	1,931	100	-	100	0	0	Works are yet to commence
28.3km road network constructed or rehabilitated in Butebo and Pallisa ( <b>% completion</b> )	1,593	100	-	100	80	80	Works ongoing but behind schedule
13.6km road network constructed or rehabilitated in Kapchorwa ( <b>% completion</b> )	958	100	35	100	20	20	Works ongoing but behind schedule
20.85km road network constructed or rehabilitated in Mbale ( <b>% completion</b> )	959	100	-	100	20	0	Works are yet to commence
11.6km road network constructed or rehabilitated in Bukwo ( <b>% completion</b> )	829	100	35	100	40	40	Works ongoing but behind schedule
29.1km road network constructed or rehabilitated in Serere and Soroti ( <b>% completion</b> )	1,650	100	-	100	30	30	Works ongoing but behind schedule
3km road network constructed or rehabilitated in Kumi ( <b>% completion</b> )	5,138	100	30	100	15	15	Works ongoing but behind schedule
22km road network constructed or rehabilitated in Gulu ( <b>% completion</b> )	999	100	30	100	15	15	Works ongoing but behind schedule
41.5km road network constructed or rehabilitated in Nwoya ( <b>% completion</b> )	1,043	100	-	100	22	22	Works ongoing but behind schedule



Output	Financial Performance				Physical Performance				Remark
	Annual Budget (Ug shs million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)			
26.9km road network constructed or rehabilitated in Omoro (% completion)	1,159	100	-	100	15	15	Works ongoing but behind schedule		
20.4km road network constructed or rehabilitated in Apac and Kwanja (% completion)	1,338	100	-	100	35	35	Works ongoing but behind schedule		
24km road network constructed or rehabilitated in Dokolo and Lira (% completion)	2,343	100	-	100	35	35	Works ongoing but behind schedule		
42.3km road network constructed or rehabilitated in Kole and Oyam (% completion)	2,343	100	-	100	35	35	Works ongoing but behind schedule		
21.5km road network constructed or rehabilitated in Bushenyi (% completion)	599	100	-	100	95	95	Works substantially completed		
13.3km road network constructed or rehabilitated in Isingiro (% completion)	1,884	100	-	100	75	75	Works ongoing but behind schedule		
21km road network constructed or rehabilitated in Rubanda (% completion)	731	100	-	100	30	30	Works ongoing but behind schedule		
3km road network constructed or rehabilitated in Rukiga (% completion)	911	100	30	100	25	25	Works ongoing but behind schedule		
27.1km road network constructed or rehabilitated in Bunyangabo and Kabalore (% completion)	1,482	100	-	100	45	45	Works ongoing but behind schedule		
37.6km road network constructed or rehabilitated in Kamwenge (% completion)	2,301	100	56	100	70	70	Works ongoing but behind schedule		
15.6km road network constructed or rehabilitated in Kitagandwa (% completion)	485	100	48	100	60	60	Works ongoing but behind schedule		
11.4km road network constructed or rehabilitated in Kasese (% completion)	965	100	35	100	60	60	Works ongoing but behind schedule		



Output	Financial Performance			Physical Performance			Remark
	Annual Budget (Ug shs million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
5.1km road network constructed or rehabilitated in Arua ( <b>% completion</b> )	833	100	-	100	25	25	Works ongoing but behind schedule
8.9km road network constructed or rehabilitated in Madi-Okollo ( <b>% completion</b> )	495	100	-	100	0	0	Works are yet to commence
4km road network constructed or rehabilitated in Maracha ( <b>% completion</b> )	1,008	100	-	100	10	10	Works ongoing but behind schedule
19.5km road network constructed or rehabilitated in Yumbe ( <b>% completion</b> )	1,076	100	-	100	7	7	Works ongoing but behind schedule
14.4km road network constructed or rehabilitated in Hoima, Kagadi and Kikuube ( <b>% completion</b> )	2,411	100	35	100	15	15	Works ongoing but behind schedule
34.1km road network constructed or rehabilitated in Kiryandongo and Masindi ( <b>% completion</b> )	1,744	100	35	0	0	0	Works are yet to commence
National Metrology Laboratory(NML) at UNBS- Phase-3 constructed under AVCP ( <b>% completion</b> )	14,881	100	65	100	86	86	Works ongoing but behind schedule
Quality, Standard and Accreditation by the UCDA ( <b>% completion</b> )	3,176	35	96	100	79	100	Targets substantially achieved by UCDA
Busunga Town council border market constructed in Bundibugyo under Agriled implemented by NAADS ( <b>% completion</b> )	2,690	100	30	100	25	25	Works ongoing but behind schedule
Roadside market at Nyakigumba TC in Bunyangabo constructed under Agriled implemented by NAADS ( <b>% completion</b> )	306	100	-	100	0	0	Works are yet to commence



Output	Financial Performance				Physical Performance			Remark
	Annual Budget ( Ug shs million )	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)		
Rwaihamba market in Kabalore constructed under Agriled implemented by NAAADS (% completion)	1,163	100	-	100	15	15	Works ongoing at 25% physical progress	
Kamwenge Central Market Phase 1 constructed under Agriled implemented by NAAADS (% completion)	1,262	100	30	100	10	10	Works were yet to commence due to delays in site handover.	
Two (2) Rural Agricultural Markets (Kasangali - Kajolly market and Ezron Mbethe - Kinyamaseke main Market) constructed in Kasese under Agriled implemented by NAAADS (% completion)	1,184	100	30	100	45	45	Works were ongoing at 15% physical progress	
Rwensasi Cattle and General Merchandise Market at Ruyonza S/County (Construction of the Stalls, lock ups, restaurant, Agrovet shop, loading bay ) upgraded in Kyegegwa under Agriled implemented by NAAADS (% completion)	257	100	-	100	10	10	Works ongoing at 10% physical progress	
Kyegegwa Central and General Merchandise Market in Kyegegwa TC constructed under Agriled implemented by NAAADS (% completion)	927	100	-	100	20	20	Works ongoing but behind schedule	
Kyerijojo Central Market constructed under Agriled implemented by NAAADS (% completion)	1,713	100	-	100	0	0	Works were yet to commence due to delays in site handover.	



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs million )	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Upgrading of Kaculeeta Farmers Market in Fortportal under Agriled implemented by NAADS (% completion)	2,104	100	-	100	0	0	Works procured, commencement of works pending approval of revised designs, following change of site from Kyenjojo TC to Mukunyu TC
Coffee Marketing undertaken by the UCDA (% completion)	503	6.6	8	100.00	3.00	45.58	Fairly achieved due to funding constraints
The National Seed Laboratory at Kawanda Renovated under ACDP (% completion)	1,900	100.0	-	100	55	55	Works ongoing but behind schedule
<b>Average Output Performance</b>						<b>42</b>	<b>Poor performance</b>

Source: Field Findings



### Annex 6: Performance of the Agricultural Financing-Enabling Environment and Strengthening Private Sector Sub-programme by 31st December 2022

Output	Financial Performance			Physical Performance			Remarks
	Annual Budget (Ug shs million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Soroti Fruit Factory Value addition activities undertaken ( <b>% completion</b> )	11,331	100	24	100	36	36	Value addition activities including infrastructure development partially done.
An Environmental Impact Assessment (EIA) study, Feasibility study, geotechnical survey and develop a master plan with the necessary infrastructure for the factory undertaken for Zombo Tea ( <b>% completion</b> )	1,673	100	2	100	25	25	Works behind Schedule
Tea planting with the private sector (Kigezi Highland Tea factory in Kabale and Kisoro) promoted ( <b>% completion</b> )	405	100	100	100	50	50	Tea plantations established. Majority not yet achieved maturity to supply to the factory for agro processing and value addition.
Equity stake/shareholding in Mutuma Commercial Agencies Ltd acquired ( <b>% completion</b> )	1,813	100	100	100	35	35	Equity acquired. Processing of cotton and cotton products continued.
Working capital provided and equipment provided for value addition to cassava chips ( <b>% completion</b> )	1,213	100	-	100	50	50	Working capital provided and value addition initiatives ongoing. Additional equipment under procurement was yet to be delivered.
Trucks procured at Mrs Kyosimire Sylvia's farm in Masindi District ( <b>Number</b> )	120	100	100	1	1	100	Achieved
Irrigation equipment procured, pineapple farm improved and agricultural inputs procured at Mr. Gaboi Nicholas's farm in Mukono District ( <b>Number</b> )	160	43.8	100	3.00	2.00	100.00	Achieved
Trucks procured at Mr Subuma Hamza's a farm in Masindi District ( <b>Number</b> )	120	100	100	1	1	100	Achieved



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget ( Ug shs million )	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Warehouse constructed at Mrs. Yiga's farm in Mukono District ( <b>% completion</b> )	1,500	66.7	100	100	45	67	Partially achieved
Dairy cattle purchased at Mr. Ndege Benson's farm in Wakiso District ( <b>Number</b> )	600	66.7	100	4	2	75	Partially achieved
Grain purchased by Mrs. Asimwe Robert in Masaka District ( <b>% completion</b> )	250	80	100	100	60	75	Partially achieved
Shallow well-constructed, Pastures planted, farm fenced, and 80 bulls purchased at Mr. Ssejamba Deogracious' farm in Mubende District ( <b>Number</b> )	300	50	100	80	35	87	Partially achieved
Agricultural equipment procured at Highmark Dairy Farm in Mbarara District ( <b>% completion</b> )	530	100	100	100	98	98	Substantially achieved
18 bulls purchased, farm paddocked and fenced, a deep well constructed and banana plantation improved at Dr. Mugasira Cranimer's farm in Mbarara District ( <b>% completion</b> )	90	66.7	100	25	18	100	Substantially achieved
Trucks procured at Mr. Odong joe'farm in Apac District ( <b>Number</b> )	110	100	100	1	1	100	Achieved
Grain purchased by Mr. Obete Denis in Apac District ( <b>% completion</b> )	300	33.3	100	1	1	100	Achieved
Grain purchased by Mr. Ogwang Joe in Lira District (MT) ( <b>Quantity in MT</b> )	200	65	100	100	70	100	Achieved
Grain Purchased by Mr. Kapero Michael In Kapchorwa District ( <b>Quantity in MT</b> )	200	100	100	1000	1000	100	Achieved
Grain purchased by Oyola Charles in Soroti District (MT) ( <b>Quantity in MT</b> )	200	50	100	200	106	100	Achieved
Trucks procured by Mr. Fredrick in Soroti District (MT) ( <b>Number</b> )	140	100	100	1	1	100	Achieved



Output	Financial Performance			Physical Performance			Remarks
	Annual Budget ( Ug shs million )	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Mr. Atuhaites Gerald's farm improved in Hoima District (% completion)	33	100	100	1	1	100	Achieved
<b>Total</b>	<b>21,529</b>	<b>93.5</b>	<b>42</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>Good performance</b>
<b>Average Outputs Performance</b>							
<b>Outcomes Performance</b>							
Outcome Indicator	Annual Target	Achieved	Score ( % )	Remark			
Proportion of farmers that access agricultural finance(%)	12.8	10	78				
Share of agricultural financing to total financing(%)	23%	12.2	53				
<b>Average Outcome performance</b>			<b>66.0</b>	<b>Fair performance</b>			
<b>Overall sub-programme Performance</b>			<b>73.3</b>	<b>Overall performance of sub-programme</b>			

#### Annex 7: Performance of Institutional Strengthening and Coordination Sub-programme by 31st December 2022

Output	Financial Performance				Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)		
Operational activities for PDM SACCOS undertaken in Masaka District (% progress)	18	50	25	100	25	50	Fair progress	
Revolving fund for PDM SACCOS in Masaka district accessed by beneficiaries (% progress)	1,800	25	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Kayunga District (% progress)	71	50	25	100	20	40	Good progress	
Revolving fund for PDM SACCOS in Kayunga District accessed by beneficiaries(% progress)	7,100	25	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Mpigi District (% progress)	56	50	25	100	25	50	Fair progress	



Output	Financial Performance			Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)	
Revolving fund for PDM SACCOS in Mpigi District accessed by beneficiaries(% progress)	5,600	25	-	100	0	0	Not achieved
Operational activities for PDM SACCOS undertaken in Mukono District(% progress)	88	50	25	100	30	60	Fair progress
Revolving fund for PDM SACCOS in Mukono District accessed by beneficiaries(% progress)	8,800	25	-	100	0	0	Not achieved
Operational activities for PDM SACCOS undertaken in Kabale District (% progress)	67	50	25	100	25	50	Fair progress
Revolving fund for PDM SACCOS in Kabale District accessed by beneficiaries(% progress)	6,700	25	-	100	0	0	Not achieved
Operational activities for PDM SACCOS undertaken in Kasese District(% progress)	197	50	25	100	30	60	Fair progress
Revolving fund for PDM SACCOS in Kasese District accessed by beneficiaries(% progress)	19,700	25	-	100	0	0	Not Achieved
Operational activities for PDM SACCOS undertaken in Masindi District (% progress)	46	50	25	100	40	80	Fair progress
Revolving fund for PDM SACCOS in Masindi District accessed by beneficiaries(% progress)	4,600	25	-	100	0	0	Not achieved
Operational activities for PDM SACCOS undertaken in Iganga District(% progress)	42	50	25	100	30	60	Fair progress
Revolving fund for PDM SACCOS in Iganga District accessed by beneficiaries	4,200	25.	-	100	0	0	Not achieved
Operational activities for PDM SACCOS undertaken in Tororo District(% progress)	155	50	25	100	35	70	Fair progress
Revolving fund for PDM SACCOS in Tororo District accessed by beneficiaries(% progress)	15,500	25	-	100	0	0	Not achieved



Output	Financial Performance				Physical Performance				Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)			
Operational activities for PDM SACCOS undertaken in Gulu District ( <b>% progress</b> )	47	50	25	100	35	70	Fair progress		
Revolving fund for PDM SACCOS in Gulu District accessed by beneficiaries( <b>% progress</b> )	4,700	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Butaleja District( <b>% progress</b> )	76	50	25	100	20	40	Fair progress		
Revolving fund for PDM SACCOS in Butaleja District accessed by beneficiaries( <b>% progress</b> )	7,600	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Mityana District ( <b>% progress</b> )	75	50	25	100	25	50	Fair progress		
Revolving fund for PDM SACCOS in Mityana District accessed by beneficiaries ( <b>% progress</b> )	7,500	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Mubende District( <b>% progress</b> )	79	50	25	100	35	70	Good progress		
Revolving fund for PDM SACCOS in Mubende District accessed by beneficiaries( <b>% progress</b> )	7,900	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Kyenjojo District ( <b>% progress</b> )	167	50	25	100	40	80	Good progress		
Revolving fund for for PDM SACCOS in Kyenjojo District accessed by beneficiaries( <b>% progress</b> )	16,700	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Sembabule District( <b>% progress</b> )	65	50	25	100	20	40	Fair progress		
Revolving fund for for PDM SACCOS in Ssebambule District accessed by beneficiaries( <b>% progress</b> )	6,500	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Gomba District( <b>% progress</b> )	49	50	25	100	20	40	Fair progress		



Output	Financial Performance				Physical Performance			Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)		
Revolving fund for for PDM SACCOS in Gomba District accessed by beneficiaries(% progress)	4,900	25	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Omoro District(% progress)	65	50	25	100	20	40	Fair progress	
Revolving fund for for PDM SACCOS in Omoro District accessed by beneficiaries(% progress)	6,500	25	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Amuru District(% progress)	58	50	25	100	20	40	Fair progress	
Revolving fund for for PDM SACCOS in Amuru District accessed by beneficiaries(% progress)	5,800	25	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Arua District(% progress)	32	50	25	100	25.00	50	Fair progress	
Revolving fund for PDM SACCOS in Arua District accessed by beneficiaries(% progress)	3,200	25	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Luuka District provided(% progress)	64	50	25	100	26	52	Fair progress	
Revolving fund for PDM SACCOS in Luuka District accessed by beneficiaries(% progress)	6,400	25	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Bukedea District(% progress)	152	50	25	100	28	56	Fair progress	
Revolving fund for PDM SACCOS in Bukedea District accessed by beneficiaries(% progress)	15,200	25.0	-	100	0	0	Not achieved	
Operational activities for PDM SACCOS undertaken in Soroti District(% progress)	54	50	25	100	20	40	Fair progress	
Revolving fund for PDM SACCOS in Soroti District accessed by beneficiaries(% progress)	5,400	25.0	-	100.00	0.00	0.00	Not achieved	



Output	Financial Performance				Physical Performance				Remark
	Annual Budget ( Ug shs Million)	% of budget received	% of budget spent	Annual Target	Cum. Achieved Quantity	Physical Performance Score (%)			
Operational activities for PDM SACCOS undertaken in Mbale District provided. ( <b>% progress</b> )	90	50	25	100	25	50	Fair progress		
Revolving fund for PDM SACCOS in Mbale District accessed by beneficiaries ( <b>% progress</b> )	9,000	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Kiboga District provided ( <b>% progress</b> )	58	50	25	100	30	60	Fair progress		
Revolving fund for PDM SACCOS in Kiboga District accessed by beneficiaries( <b>% progress</b> )	5,80	25	-	100	0	0	Not achieved		
Operational activities for PDM SACCOS undertaken in Jinja District( <b>% progress</b> )	34	50	25	100	20	40.00	Fair progress		
Revolving fund for PDM SACCOS in Jinja District accessed by beneficiaries( <b>% progress</b> )	3,400	25	-	100	0	0	Not achieved		
<b>Average Outputs Performance</b>						<b>26.76</b>			



**Annex 8: Table 3.21: Performance of road chokes under rehabilitation by location, length in kilometers as at 31<sup>st</sup> December 2022**

District Name	Road Name	Sub-county(ies)	Road Length (km)	Physical Progress
<b>Kalungu</b>	Zzawa – Kiggundu Road	Kyamulibwa	2.6	98%
	Nabutongwa – Kalonsiro-Kyamusoke – Kiranga Road	Kalungu	8.7	
	Lusango – Mitete Road	Bukulula	2.5	
	Kabaale – Buwanida – Kigaaju Road	Lwabenge	8	
	Kijjomanji – Namangome – Bwajo Road	Kalungu	3	
	Kitaabona – Namasavu Road	Bukulula	4.5	
<b>Iganga &amp; Bugweri</b>	Mwendanfuko – Bukoona Road	Namungalwe/Nakalama	7.2	95%
	Nabitende – Mwiira – Nasuti Road	Nabitende/Nasuti	4.9	
	Nakirulwe – Bukonko – Nawanyingi Road	Nawanyingi	8.7	
	Bwanalira – Bubaka – Mawagala Road	Bulamagi	8.2	
	Butende – Ibulanku -Buyebe-Idudi Road	Buyanga/Ibulanku	12.5	
	Namungalwe – Bukoona Road	Namungalwe/Nakalama	9.7	
	Nabitende-Buwongo Road	Nambale	8.5	
<b>Amuru</b>	Parabongo – Gurguru Road	Lamogi	9.6	95%
	State Farm-Okalocwan-Okajo - Apar Road	Pabo	35	
	Amoyokuma - Acodo Road	Amuru	8	
	Muruli - Pacilo Road	Atiak	4	
<b>Ntungamo</b>	Ruzinga-Rwazina-Igorora Road	Nyakyera	7.2	98%
	Kyenjubu-Kakanena –Kikoba-Ekitengye-Kasana-Ekikona-Murambi Stage 2-Ibaare Road	Rugarama	15.4	
	Rwemiriro - Dembe Road	Ruhama East	5.5	
	Nyakariro-Kabanda-Kashenyi Road	Ngoma	7.6	
	Katokye-Kyenjojo Road	Rwikiniro	8.6	
	Omungyenye -Nyamunuka-Ahamuyaga Road	Rubaare	4.8	
	Kikonje-Rwanda HC-Bucence Road	Bwongyera	5	
	Construction of 2 Span Bridge	Rugarama	0.02	

District Name	Road Name	Sub-county(ies)	Road Length (km)	Physical Progress
<b>Nebbi &amp; Pakwach</b>	Omyer Atyak Road	Nebbi	5.7	98%
	Parombo - Anyang - Ossi Road	Pabo	8	
	Omyer Koch Road	Nebbi	4.1	
	Kuchwiny - Asili Road	Atiak	12.5	
	Pacego - Pagwaya Road	Panyango	7	
	Akella - Cikithi - Marama Road	Pakwach	7.3	
<b>Kyotera</b>	Kyebe	Minziro - Katera Road	14.5	100%
	Kakuto	Kasanvu - Kyakatuma - Kamuli Road	14.9	
<b>Masaka</b>	Kabonera	Kagezi - Busense - Butale Road	5.8	100%
		Takajunge - Busense Road	2.0	
	Kyanumukaka	palenga - Lelabaro Road	3.3	
	Kyesiga	Kasanje - Lwemode - Kijaluwo Road	1.4	
		Lwemodde-Lukolo-Bbossa Road	3.4	
	Kyanumukaka	Manzi-Busigire-Mikomago Road	1.8	
<b>Mpigi</b>	Kituntu	Kitajja - Kasinge Road	1	0%
	Buwama	Kumbya-Sakabusolo Road	2	
	Nkonzi	Ssalongo Mukasa - Kazinda - Kisama Road	1	
	Muduma	Busozi - Jimbo - Lulyo Road	2.0	
	Kirigente	Luvumbula - Nama Road	1.0	
	Kamengo	Kamengo - Kamugavu - Kisswa Road	1.0	
<b>Rakai</b>		Bulanga-Bbale-Ggunda	8.3	100%
		Kyalulangira-Ddyango-Magabirano	24.3	
		Buyamba-Nsozibiri-Kasenge	8.6	100%
		Byakabanda-Nabunga-Kifamba	7.3	
<b>Kakumiro</b>		Kiweeza-Kigando-Rusolera-Kakindo	11	100%
<b>Kasanda</b>	Mbirizi	Forest-Kigudde- Kassenyi Road	7.6	40%
	Mbirizi	Kyato-Kasita Road	3.7	
<b>Mubende</b>	Bagezza	Kalagala-Mugungulu Road	7.6	
	Butoologo	Kiruma-Kirwanyi-Kituule	7.8	
<b>Kibaale</b>	Karama	Rwamariba-Kitutu-Katebe-Kicungiro-Kikaara-Muzizi Road (inclusive of 1No. 2 span Bridge)	14.5	60%
	Bubango	Karuteete-Ruboona-Maisuka-Muzizi	11.7	
<b>Kyegegwa</b>	Kabweza	Swewe - Nyaburungi - Mubende Border Road	4	0%
<b>Kyenjojo</b>	Kifuka	Kifuka-Byerwa-Kahombo 2 road (Swamp crossings, 90m and 2.0km for approaches)	2	
	Nyantungo	Mukeeya-Mabale-Nyabaganga-Ruhoko Road	6.5	



District Name	Road Name	Sub-county(ies)	Road Length (km)	Physical Progress
<b>Bugiri</b>	Budhaya	Mayuge-Ngulumo-Bumwangu-Maziriga-Namatu Beach Road	10.8	30%
<b>Namutumba</b>	Nsinze	Buligooda-Budhebero-Nambote-Kasuleta-Bubago Road	2.6	50%
	Nangonde	Nangondwe - Kisega - Kiziga - Zagira Road	7.4	
	Magada	Nakwera - Kasodo Road	5.3	
<b>Butaleja</b>	Nawanjofu	Bingo-Higoye Road	2.8	
	Nawanjofu	Bingo-Namadumwe Road	3.1	
	Busobwe & Busaba	Bubyala-Mugulu-Lusaka Road	4.2	
	Kachonga	Doho Hibira A-Doho Hibira B Road	1	
<b>Tororo</b>	Mulanda & Kisoko	Awaya Rutengo-Boda Magoro Road	7.2	
	Kwapa	Chafu-Akadot-Chengen 2 Road	6.1	
<b>Butebo</b>	Petete	Kabelekeke - Petete Road	3.3	80%
	Kabwangasi	Kaundama - Kamunje Road	3.2	
	Kakoro	Kakoro - Kidongole Road	5.4	
<b>Pallisa</b>	Puti Puti-Pallisa	Aputon III -Omotokoge -Akisim -Okisiran - Obolis Road	11.7	
	Akisim/Kameke	Amuni - Karyebi Swamp Road	4.7	
<b>Kapchorwa</b>	Amukol	Amuko-chekwanda Road	2.3	20%
	Kaserem/Kapsinda	Flee-free-branch Road	5.3	
	East Division & Kaptanya	Ngangata-siro Road	6.0	
<b>Mbale</b>	Bunghoko/Mutoto	Roman Arch Bridge on Busamaga-Kibagala Road	0.0	20%
	Bunghoko	Manyonyi-Wampewo Road	6.1	
	Bumasikyeye	Namalogo-Watakhuna Road	5.3	
	Bubyangu	Imam-Husseini-Kilayi Road	7.6	
	Busiu	Lusis-Mukatso Road	1.9	
<b>Bukwo</b>	Senendet	Kalulu--Matimbei Road (Inclusive of 1No. Box culvert-2cells)	3.8	40%
	Kortek	Kortek-Chesimat Road	7.8	
<b>Serere</b>	Kasilo TC, Bugondo, Olio and Apiira	Kasilo-Akoboi-Atiira Road	19	30.0%
<b>Soroti</b>	Asuret	Asuret-Opar Road	10.1	
<b>Kumi</b>	Ongino	Kachelakweny - Tisai Road (Extensive Fill Embankment with multiple box culverts and intensive culvert works)	3	15.0%
<b>Gulu</b>	Unyama	Loyoboo-Latwong Road (Inclusive of Single Span Bridge)	9	15%
	Awach, Patiko & Unyama	Oguru-Latwong-Teyaa-Ngomrom Road	13	
<b>Nwoya</b>	Gwot Apwoyo & Lungulu	Wii Anaka-Aswa-Amuru TC Road	41.5	22%



District Name	Road Name	Sub-county(ies)	Road Length (km)	Physical Progress
<b>Omoro</b>	Koro	Abole - Obwola - Lacenatenga Road	9.8	15%
	Ongako	Palenga - Lelabaro Road	6.8	
	Bobi	Ongako-Patuda Road	10.3	
<b>Apac</b>	Akokoro	Aketo corner - Aketo PS - Aringoyat Road	10.3	40%
<b>Kwania</b>	Abongomola	Corner Adek-Adok road	4.3	
	Aduku & Imono	Apire - Inomo road	5.8	
<b>Dokolo</b>	Okwongodul	Regorego-Yadak Swamp-Apenyoweo Road	7	38%
<b>Lira</b>	Aromo	Construction of a Single Span Bridge at A cake -Swamp on Ayami-Owene-Odoro-Oyam Boarder road	17	
<b>Kole</b>	Kole TC, Bala and Akalo	District Headquarters - Bala SC - Akalo Road	32.8	35%
<b>Oyam</b>	Ngai	Abyenek - Ajaka - Ariek Road	5.4	
	Aber	Barcan - Acutanena Road	2.4	
	Myene	Mitaacoo Market - Nwoya Boarder Road (Inclusive f 1No. Box culvert-2cells)	1.7	
<b>Bushenyi</b>	Kyabugimbi	Bujaga- Kibona- Kyeigombe-Buhimba Kyarwamukara Road (8.3km) - Prioritised to work on a road section of 2km from Bujaga to Kibona and also construction of a triple cell box culverts at Kyarwamukara swamp	2	95%
	Bumbaire	Katonya- Nyabiziri- Nyaruzinga road and its spurs (11.1km) - Priotised a road section of 2.2km	2.2	
	Kyabugimbi	Mukora- Kajunju- Karyango road (8.4km) - Prioritised a road section of 2.5km	2.5	95%
	Bitooma	Katiba- Mirambi- Mufumba	5.5	
	Nyabubare	Kizinda- Nkanga- Igambiro	9.3	
<b>Isingiro</b>	Nyamuyanja	Kyebikara-Buharwe-Butenga	7.3	75%
	Birere	Kyera-Rwencwera -Kitooma	6.0	
	Masha	Design and duild of asuspension foot bridge at Karugangama on R. Rwizi and its approach roads totalling to 3km		
<b>Kabale</b>		Rwakijuma-Mashure-Mukokye-Nyamirima-Kahondo TC	24.3	70%
<b>Rubanda</b>	Ruhija	Bugarama - Ntungamo - Kitojo (Inclusive of 1No. Box culvert, 2 Cells)	6.6	30%
	Hamurwa	Murutenga - Nyamasiizi - Kerere	14.4	
<b>Rukiga</b>	Kashambya	Kantare - Nyarubisi Road (Inclusive of 1 No. Single Span Bridge & 1No. Vented drift)	3	25%



District Name	Road Name	Sub-county(ies)	Road Length (km)	Physical Progress
<b>Bunyangabu</b>	Buhesi	Buhesi-Kabata-Mahoma Road	17.8	45%
<b>Kabarole</b>	Kabende	Kabende Center-Mukuhura-Musongora Road	5.6	
	Ruteete	Rurama-Kyakabuzi-Burunda Road	3.7	
<b>Kamwenge</b>	Kamwenge	Kamwenge- Kyabandara-Nkongoro-Ganyenda Road (Inclusive of 1No. Box culvert-2cells)	17.6	70%
	Bwiizi/Biguli	Kyakaitaba-Mbarara B-Kizikibi-Kampala Road (Inclusive of 1No. Box culvert-2cells)	10	
	Bwiizi/Nkoma	Nkoni-Kabakuta-Rwemburara Road	5	
	Bihanga	Kanara-Nyabirungi-Kakiga Road	5	
<b>Kitagwenda</b>	Ntara	Omukikazi - Nyakera Road	7.4	60%
	Buhanda	Kikoyo - Kyarubingo road	8.2	
<b>Kasese</b>	Kitswamba	Bigando Trading Centre - Hima Road	7.1	60%
	Kitswamba	Ibuga Refugees Camp - Rugendabara Road	4.3	
<b>Arua</b>	Ayivu / Vurra	Ringli - Andifeku - Ndaku Road (2-Span Bridge inclusive)	5.1	25%
<b>Madi-Okollo</b>	Rigbo	Bisimilah - Walope - Matangacia Market Road	8.9	
<b>Maracha</b>	Kijomoro	Lokiragodo-Awiziru-Anjupi-Nigo Road (2-span bridge inclusive)	4.0	37%
<b>Yumbe</b>	Drajini	Adibo-Galaba-Dondi-Orivu Road (Inclusive of 1No. Box Culvert, 2 Cells & 1No. Double span Bridge)	7.4	10%
	Kei	Kanabu - Kolua - Rodo Road (Inclusive of 1No. Box Culvert, 2 Cells)	12.1	
<b>Hoima</b>	Buhanika	Kitoonya-Kyohairwe-Wegesa Road	9.5	7%
	Kitoba	Kyabasenja-Icukira Road	2.9	
<b>Kagadi</b>	Kabamba	Kabamba-Michinga-Rusekere Road	6.5	7%
<b>Kikuube</b>	Buhanika	Kirimbi-Mugabi Road	2	
	Kabwoya	Kyabataka-Ikoba II road	2.4	
	Bugambe	Kaziniro-Kahajo-Kicungajembe Road	5.8	
<b>Kiryandongo</b>	Kigumba	Nyakibete-Kyeganywa Road	6.3	15%
	Kigumba	Kigangara-Apondra Road	4.4	
<b>Masindi</b>	Pakanyi	Kitanyata - Alimugonza - Ibaralibi Road	23.4	





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