

DAIRY DEVELOPMENT AUTHORITY











STRATEGIC PLAN III

FINANCIAL YEAR 2020/21 - 2024/25

Dairy cottage revolution for employment, increased farmers' incomes and wealth creation.



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VISION

Dairy for improved health and prosperity of Ugandans

GOAL

To enhance dairy value addition and quality for increased market competitiveness

THEME

Dairy cottage revolution for employment, increased farmers' incomes and wealth creation.



FOREWORD

▼ he Government of Uganda recognizes the dairy subsector as one of the key investment areas for agricultural transformation as laid out in the National Vision 2040 and National Development Plans. Since the liberalization of the dairy industry and enactment of the Dairy Industry Act in 2000; Government through the Dairy Development Authority embarked on dairy development and strengthening of its regulatory function. These initiatives have increased milk production and continued to attract a lot of private sector investments to the dairy subsector. Dairy exports have also increased significantly due to enhanced compliance to quality and safety standards for international markets. Dairy factories have emerged as the entire value chain growth erupted to support growth in milk production and productivity.

In continuous pursuit of industrialization for rapid employment and wealth creation, Government of Uganda launched the third National Development Plan to guide the country in the next five years. It identified agriculture as the main agent for economic transformation through rapid processing and value-addition of agricultural commodities. As a bold development strategy, the Agroindustrialization Programme was rolled

out to increase commercialization and competitiveness of agriculture production and processing. Dairy is among the six commodities earmarked for boosting the total export value of processed agricultural commodities from 1bn USD to 4bn USD in the next five years.

The DDA Strategic Plan 2021-2025 shall therefore focus on rolling out dairy cottages to invest in small scale value-addition, boosting milk production and productivity countrywide, strengthening quality assurance for exports and boosting local consumption of milk and milk products. We therefore ask for your support and commitment as we pursue aspirations in this plan to create jobs, good health wellbeing and wealth for our population engaged in the dairy subsector. I thus take this opportunity to present the Five Year Strategic Plan for the Dairy Development Authority with strategic intentions to enhance dairy value addition and quality for increased market competitiveness.

For God and My Country.

Hon. Lt. Col. (Rtd) Bright Rwamirama.

Minister of State for Animal Industry.



ACKNOWLEDGEMENTS

his plan was developed together with many stakeholders who made incredible contributions in the review of the previous plan, providing strategic ideas and commentary. The Authority would like to thank the Government of Uganda for the continued support to the dairy subsector and for recognizing it as a priority commodity among others. It has positioned the Authority as a key partner in the Agro-Industrialization agenda of the country.

We also extend gratitude to aBi-Development Ltd, Heifer International, FAO, SNV and other Development partners who have greatly contributed to the review of this plan. Also, we recognize the efforts of Government MDAs especially the National Planning Authority, Office of the Prime Minister, Ministry of Finance, Planning and Economic Development, Ministry of Agriculture, Animal Industry and Fisheries and our sister

agencies who participated in our review meetings and contributed to the development of this Plan. Above all, it's imperative to pay great tribute to the DDA Board, Management and the Planning Unit for consolidation and pursuing approval of this Strategic Plan 2020/2021–2024/2025 as a policy document for the Authority.

May the Almighty God reward your tireless efforts in contributing to the development of the country through this Strategic Plan. I am therefore honored to work with you and do pledge to support the implementation of this plan for the attainment of its broader outcomes.

Dr. Michael Kansiime

Executive Director

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LIST OF ACRONYMS

ASSP Agriculture Sector Strategic Plan

AVCP Agriculture Value Chain Development Project

BFP Budget Framework Paper

CNDPF Comprehensive National Development Planning Framework

CO Company

COVID -19 Corona Virus Disease of 2019
CSOs Civil Society Organizations
DDA Dairy Development Authority
EAC East African Community

EADDP East Africa Dairy Development Project

EDTS Entebbe Dairy Training School

FY Financial Year

GDP Gross Domestic Product GMP Good Manufacturing Practice

HACCP Hazard Analysis and Critical Control Point

HIV/AIDS Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome.

ICT Information, and Communication Technology

IG Inspector General

ISO International Organization for Standardization
JASAR Joint Agriculture Sector Annual Review

M&E Monitoring & Evaluation

MAAIF Ministry of Agriculture, Animal Industry and Fisheries

MCCs Milk Collection Centers

MDA Ministry, Departments and Agencies

MoFPED Ministry of Finance, Planning and Economic Development

MoTIC Ministry of Trade, Industry and Cooperatives

MPS Ministerial Policy Statements

MTEF Medium Term Expenditure Framework
NAADS National Agricultural Advisory Services

NAGRIC & DB National Animal Genetic Resources Centre & Databank

NARO National Agricultural Research Organization

NDL National Dairy Laboratory
NDP III Third National Development Plan

NEMA National Environment Management Authority

NITA-U National Information Technology Authority - Uganda

NPCU National Project Coordination Unit NRM National Resistance Movement

NTR Non-Tax Revenue

OAG Office of the Auditor General

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OPM Office of the Prime Minister OWC Operation Wealth Creation

PIAP Programme Implementation Action Plan

PBB Programme Based Budgeting

PESTEL Political, Economic, Socio-cultural, Technological, Environmental and

Legal

PFMA Public Finance Management Act

PS/ST Permanent Secretary/Secretary to Treasury
QBMPS Quality Based Milk Payment System
SADC Southern African Development Community
SANAS South African National Accreditation System

SDGs Sustainable Development Goals

SNV-NDO Stichting Nederlandse Vrijwilligers-Netherlands Development

Organization

SOP Standard Operating Procedures

SWOT Strengths, Weaknesses, Opportunities and Threats

UAE United Arab Emirates

UPDF Uganda Peoples Defense Forces

USD United States Dollars WHO World Health Organization

EXECUTIVE SUMMARY

airy Development Authority (DDA) is a statutory body created under the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) to develop and regulate the dairy industry in Uganda. Its vision is to see "Dairy for improved health and prosperity of Ugandans". DDA's mission is "to increase productivity and competitiveness of the dairy sector enhancing its contribution to health and wealth of all Ugandans".

The Development Planning Regulations of 2017 provides for each MDA to prepare and implement five-year Strategic Plans in line with the National Planning Frameworks. Also, the National Development Plan III will be implemented through asymmetric strategic plans of MDAs. It is therefore within this background that the DDA Strategic Plan III was formulated and approved. The plan developed will guide the organization in enhancing its performance and service delivery, in line with the Uganda Vision 2040, NDP III, NRM Manifesto and SDGs. It is also directly intended to support the Authority with negotiations of the medium-to-long-term organizational investment priorities with other government agencies and development partners. Once approved by the DDA board and NPA, this plan will guide the Authority with their annual and medium-term plans and budgets.

The formulation of this plan took a wide consultative and participatory process. Strategic planning started with a consultative review meeting held at the EDTS with stakeholders from MAAIF, MoFPED, OPM, NPA and development partners within the dairy subsector. New priorities and strategies were developed, discussed and reviewed. Further, internal meetings with Technical Officers at the Authority were conducted to refine the priorities and draft the strategic plan. Finally, a planning retreat was organized to discuss and finalize the draft plan for approval by board.

Over the previous planning period, the dairy subsector registered significant trends. Milk production increased from 1.93 billion litres in 2014 to 2.5 billion litres in 2019 as result of investments in human capital development and access to dairy farm inputs. Dairy exports value more than doubled from USD 50.12 million in 2015 to USD 139.5 million in 2019. The increase in the net exports has been as a result of increased compliance of Uganda's milk and milk products to both regional and international standards. The range of exported products increased and destination export countries widened to EAC, COMESA countries, SADC, UAE, Nigeria, Syria, Japan, Oman, USA, Nepal & Bangladesh. Furthermore, with the increasing commercialization of investments in all segments of the value chain, an estimated 100,000 jobs along the dairy value chain have been created and sustained. The EADDP Evaluation Report (2018) from Heifer International places the average monthly net income of the farmers substantially at USD 2,128 in 2018. However, the industry still faces a number of challenges. These include seasonal price fluctuations, non-tariff barriers, low value addition, weak legal environment to strengthen regulation and enforcement for compliance to quality and safety standards, low dairy animal productivity, high costs of value-addition equipment and the high level of informality of the industry. The general plan strategy is grounded on the need for increasing value addition and competitiveness by addressing industry challenges, nurturing its potential and unlocking dairy strategic competitiveness in Africa.

The plan therefore focuses on enhancing dairy value addition and compliance to quality and safety standards for increased market competitiveness in the next five years. The Authority will put more efforts in attaining five key objectives. These include; Increasing milk production and productivity; enhancing milk processing and marketing; maintaining market competitiveness; increasing domestic milk consumption and strengthening dairy institutions. In order to leverage resources and focus on results, the plan will limit investments to the five strategic core areas to be implemented over the plan period. These include

- i. Dairy Production and Productivity
- ii. Post-harvest handling.
- iii. Dairy value addition and market competitiveness
- iv. Quality Assurance and domestic dairy consumption promotion
- v. Dairy Institutional Strengthening

The plan objectives and key result areas are aligned to the NDP III and the Agro-industrialization programme. All development projects and policies drawn within the period of implementation will drive towards the direction of increasing value addition and attaining the broader objectives within the result areas above. Within the period of implementation, the planned outcomes will include dairy production and productivity increased, post-harvest losses reduced, dairy value addition and competitiveness improved, domestic dairy consumption promoted and the dairy institutions strengthened country wide. However, the achievement of the above goal and outcomes are highly dependent on peace, and security in the country; macro-economic reforms in the agricultural sector especially the commitment to fund the dairy subsector.

The overall cost of financing the plan over the 5-year period is UGX 121.4 billion of which UGX 12.2 billion is for Wages meanwhile 109.2 will finance both non-wage and development expenditure. However, DDA will receive only 48.1 billion according to the Medium Term Expenditure Framework from Ministry of Finance, Planning and Economic Development. This implies that DDA has a budgetary financing gap of 73.3 billion to deliver on the expected outcomes. The funding gap therefore calls for development partnerships and increased private sector financing to support the Authority attain the planned outcomes. Additionally, the Authority will seek off-budget support in form of projects and programmes generated internally within Government and from external sources.

The plan also identified risks that have potential to derail its objectives during the course of implementation. These include natural disasters, inadequate data, macro-economic shocks, attitude among others. Analysis of the risk factors and mitigation measures were identified and will be consolidated further in to a risk management plan that shall be developed and implemented as need arises. Subsequently, to enhance measurement of performance for learning and accountability, Monitoring and Evaluation will be strengthened with adequate financing and implementation of the Strategic Plan for Statistics. All projects will have a data collection component to provide information for baselines and periodic reviews. A communication strategy with vibrant and reliable channels for sharing information has also been identified and documented in the plan.

1.0 INTRODUCTION

he DDA strategic plan for the period 2020/21-2024/25 provides the strategic direction and detailed interventions for the Authority in line with the Agro-industrialisation programme of the third National Development Plan (NDP III). It is a successor of the second strategic 2015/16 to 2019/20. This plan was developed through a wide consultative process with key stakeholders involved in the dairy value chain. These included representatives of dairy farmers, processors, transporters and cooperatives as well as key MDAs. A review meeting of the previous plan, dairy strategies and current global context in which the industry operates were conducted. It involved analysis of implementation challenges, lessons learnt, opportunities, emerging issues, current and future development interventions for the dairy sub sector that led to a set of priorities for the plan.

This new strategic plan comes at a critical time for DDA and the dairy industry. There is a new management and board for the Authority with a refined vision, energies and strategies for the industry. Further, with the outbreak of the global coronavirus pandemic, there is also a revitalized focus on Agriculture with dairy as one of the priority commodities. The (NDP) III under the programme approach prioritized Agro-industrialisation as one of the major programmes for implementation in the next five years focusing on employment, value addition and export promotion for improved household incomes.

1.1 Background to DDA Mandate of DDA

Dairy Development Authority (DDA) is a statutory body under the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF). It was established by the Dairy Industry Act, 1998 with a mandate to develop and regulate the dairy industry in Uganda.

Vision

The Vision of DDA is "Dairy for improved health and prosperity of Ugandans"

Mission

DDA's mission is "to increase productivity and competitiveness of the dairy sector enhancing its contribution to population health and wealth of all Ugandans".

1.2 Duties of DDA

Under section 5 of the Dairy Industry Act 1998, the Authority:-

- Registers and licenses milk processors and traders;
- Supports dairy farmers' marketing organizations;
- Advises the government on milk standards and coordinates the enforcement of those standards in liaison with the Uganda National Bureau of Standards;
- Controls and regulates dairy and dairy-related import and export activities in conformity with the External Trade Act, but without violating the Animal Diseases Act;

- Implements Government policy designed to promote the development of the dairy sector;
- Supports various dairy development activities such as dairy extension, dairy breeding, dairy research, dairy training, dairy products development and general market promotion, including promotion of dairy export(s);
- Acts as arbitrator in any conflict between dairy companies and processors;
- Coordinates all dairy processing and marketing promotional activities, such as seminars, trade fairs and workshops;
- Pools dairy processing and marketing data;
- Advises the Government on research priorities of the dairy sub sector and
- Does anything connected with, or necessary for the performance of the foregoing duties.

1.3 Governance and organizational structure

The Authority is governed by the Board of Directors. The Executive Director is the Chief Executive Officer of the Authority. The Authority has 68 staff members. In the absence of the Board, the Minister of State for Animal Industry assumes overall management of the Authority.

1.4 The national legal and policy contexts in which DDA operates

Operationalization of the Dairy Master Plan, 1993 saw the Dairy Industry Act (DIA), 1998 enacted by Parliament and Dairy Development Authority (DDA) established. Operations of the Dairy Development Authority began in June 2000 within the provisions of the DIA of 1998. The Authority also operates under various policy context that guide its mission and vision. These include Uganda vision 2040, NDP III, Agro-industrialisation programme, the Parish model and other regional and international contexts.

1.4.1 Uganda Vision 2040

The Uganda Vision 2040 aims to transform the Ugandan society from a peasant to a modern and prosperous society. The key objectives for the sustainable socioeconomic transformation of the dairy sub sector address the aspirations of Uganda Vision 2040. The key objectives for this plan include; Increasing agricultural product market competitiveness through improved quality and standards; strengthening agricultural production systems for sustainable production and productivity; agro-processing, value addition and post-harvest management; boosting domestic milk per capita consumption; strengthening the Institutional, Legal, Policy, Planning and Regulatory framework for improved service delivery.

1.4.2 National Development Plan III

Uganda's Vision 2040 and National Development Plan III (NDP III) recognize agriculture as being a central sector to the country's food security, economic growth, income enhancement and employment. Clear and interlinked interventions, outcomes, indicators and targets at the Goal, Objective, Program and Project level in the DDA Strategic Plan are directly linked to the goal of NDP III and its Agro-industrialization Programme Implementation Action Plan. The key result areas for the Strategic Plan include; increased proportion of processed milk; increased dairy storage capacity and reduced post-harvest losses which address the aspirations of the Agro-Industrialization programme under the NDP III.

This programme aims to increase commercialisation and competitiveness of agricultural production and agro processing. Its key expected results include: increasing export value of

selected agricultural commodities (dairy is the fourth selected commodity), increasing the agricultural sector growth rate, increasing labour productivity in the agro-industrial value chain, creating jobs in agro-industry, and increasing the proportion of households that are food secure. In particular, the Agro-industrialization programme will be pursued to transform the subsistence agriculture sector to a commercial and competitive sector.

According to the NDP III, the Agro industrialization programme presents avenues for; positive trade balance of processed dairy products; upgrading the EDTS, Up scaling value addition in order to promote export expansion of high value dairy products. For import replacement/substitution; addressing the high post-harvest losses, stabilize prices and increase household incomes. The backward and forward linkages between dairy farming and processing plants will necessitate that DDA sustainably transform dairy value chains to ensure sufficient supply for processing plants to undertake transformative sustainable processing while creating employment for its citizens.

1.4.3 Agro-industrialization Programme Implementation Action Plan

DDA Strategic Plan III sets out recommended interventions to address Agro-Industrialization programme priorities for dairy as a commodity over the next 5 years. DDA priority interventions for the next 5 years as outlined in the Programme Implementation Action Plan (PIAP) include; Increasing milk production and productivity through building local capacity in feed production & marketing, & water harvesting, reducing post-harvest losses, improving dairy marketing and competitiveness, promoting dairy processing and value addition, supporting market access initiatives for milk and milk products, promoting local consumption and export of milk and milk products, rehabilitating existing & developing new milk cold chain & processing infrastructures and strengthening milk quality assurance systems. Its outcomes and output indicators coherently align to the Agro-industrialization PIAP.

1.4.4 Global and regional development context

This DDA Strategic Plan has been designed within the regional and global development outlook. Key regional and global agenda informing the plan include; Agenda 2030, Agenda 2063, EAC 2050 and other development frameworks. The aspiration of Agenda 2030 (SDG2, and 9), is to end hunger, achieve food security, improve nutrition and promote sustainable agriculture as well as promoting inclusive and sustainable industrialization and foster innovation. SDG 8 also seeks to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. Similarly, Agenda 2063 (Goal5) aspiration is to have modern agriculture for increased production and productivity.

Furthermore, the GoU is committed towards the Comprehensive Africa Agriculture Development Programme (CAADP), a growth oriented Agricultural Development Agenda of the African Union (AU) and the New Partnership for African Development (NEPAD). CAADP aims at increasing agriculture growth rates to 6% per year to create the wealth needed for rural communities and households in Africa to prosper through its four-pillar structure. Relatedly, the EAC Vision 2050 seeks to promote value addition through agroprocessing among partner states, Uganda inclusive. The actions drawn in this plan mirror the activities to attain the broad outcomes of regional and international initiatives as well as the goals and related outcomes.

1.5 Purpose of the strategic plan

The purpose of the DDA Strategic Plan III is to guide the organization in enhancing its performance and service delivery, as well as helping the Authority to focus on the attainment of the Uganda Vision 2040, NDP III, Agenda 2063 and the SDGs. This strategic plan will also support DDA to negotiate medium-to-long-term organizational investment priorities with other Government agencies and Development Partners. Lastly, it is directly intended to guide all units, regions and departments in the Authority in their regular, annual and medium-term planning and budgeting processes.

1.6 The process of developing the strategic plan

The production of this plan was in line with the planning process outlined in the Comprehensive National Development Planning Framework (CNDPF, 2007) and the National Development Planning Regulations (2018). A mix of top-down and bottom-up approaches were used to ensure that strategic guidance was provided at the organizational level and that the articulation of the identified development priorities was done at programme levels through the development of DDA development programs and projects. Contributions and inputs were also sought from targeted stakeholders, for example, sector level technical leaders, dairy stakeholders, private sector and development partners.

1.7 Structure of the strategic plan.

This Plan is organized into nine chapters, namely: Chapter 1: Introduction; Chapter 2: Situation Analysis; Chapter 3: Strategic Direction; Chapter 4: Financing Framework and Strategy; Chapter 5: Institutional Arrangements for implementing the Plan; Chapter 6: Communication and feedback Strategy; Chapter 7: Risk Management; Chapter 8: Monitoring and Evaluation Framework; and Chapter 9: Project Profiles.

2.0 SITUATIONAL ANALYSIS

2.1 Performance overview of the strategic plan II

The Authority's previous strategic plan was guided by the National Dairy Strategy II which was also guided by the Agriculture Sector Strategic Plan and other planning frameworks as illustrated below;-

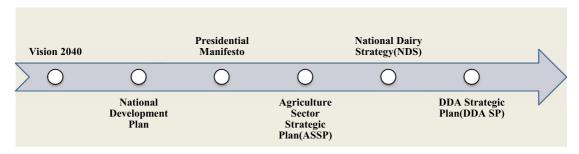


Figure 1: Guiding documents of the Strategic Plan II

The interventions in the previous strategic plan were also guided by the goal and the purpose of the Authority in its quest for efficient service delivery in the dairy subsector. The goal of the previous plan was "to contribute to the improvement of household income, nutrition and livelihood of Ugandans through increased production and productivity, value addition and marketing of milk and dairy products".

Meanwhile, the purpose was "to provide proper coordination and efficient implementation of all policies designed to achieve and maintain self-sufficiency in the production of milk in Uganda by promoting production and competition in the dairy industry and monitoring the market for milk and dairy products". The goal and purpose guided the drive to pursue five (5) strategic objectives that informed the implementation of the key planned interventions in the last five financial years. Previous plan performance therefore, will be reviewed in line with its four strategic objectives outlined below;

2.1.1 Provide support for increased milk production and productivity

In order to increase milk production and productivity in the last five years, DDA focused on enhancing human capital development, increasing use of improved feeds and feeding technologies, increasing adoption and use of labor-saving technologies and genetic improvement. These performance areas are elaborated below;

a. Enhancing human capital development

To enhance the capacity of dairy stake holders along the value chain, the Authority skilled 19,945 dairy stakeholders against a target of 19,260. The trainings covered silage and hay making, breeding technologies, dairy feed production, management & utilization, business entrepreneurship, product development, reducing post-harvest losses, conserving the farm environment, acaricide resistance and control of tick-borne diseases. Other areas include dairy

standards and regulations, cooperative benefits and group dynamics, value addition, quality assurance. These trainings had a very significant impact on how dairy stake holders conduct dairy business right from dairy farming to dairy processing in the country.

b. Increase adoption and use of labor-saving technologies

The NDP II highlighted labor-saving technologies as one of the ways of accelerating production and productivity in the country. The Authority piloted the use of chuff cutters through various trainings. During this time under review, a total of twenty-five (25) chuff cutters were procured to popularize labor saving technology among dairy farmers countrywide. The Authority has also been working with several development partners to promote biogas production and its technology to provide cheap energy for farm use.

c. Dairy genetics improvement

DDA has been at the forefront in guiding farmers while procuring high grade calf heifers. Various dairy cooperatives have been trained in Artificial Insemination for improved breeds. There has been close collaboration with NAADS/OWC and NAGRIC & DB in regard to breeding and distribution of high grade in calf heifers.

2.1.2 Provide support for improved milk marketing and consumption

In the period of review, the plan contributed to improved milk marketing by pursuing interventions that reduced post-harvest losses and increasing consumption of milk and milk products.

i. Reduction of post-harvest losses

Government through the Authority has been rehabilitating the dilapidated milk collection centers that it inherited from Dairy Corporation; to enable the farmers immediately chill the milk before it is transported to processing plants. This has reduced post-harvest losses and improved household incomes in the dairy farming households. Five (5) milk collection centers in Soroti, Kayunga, Masindi, Kitgum and Gulu districts were rehabilitated during this period under review. Following the ban on the use of plastic containers like jerry cans in transporting milk due to hygiene issues, the Authority also procured and distributed milk cans for dairy farmers to aid in storage and transportation of milk to sales outlets and milk collection centers. During this period under review, a total of 1,493 milk cans were procured against a target of 1,195 milk cans. The procured cans were distributed to dairy stakeholders countrywide and enhanced quality milk marketing.

ii. Increase consumption of milk and milk products

The Authority has been promoting milk and milk products consumption through celebrating the World's June dairy month and school milk programme. June dairy month is an annual dairy event celebrated worldwide to pay tribute to contributions of dairy farmers, dairy processors, traders, and their families who work hard every day to provide fresh, whole some milk and milk products for everyone to enjoy. It also aims at promoting milk consumption such that nations can move towards achieving the WHO's recommendation of 200 liters of milk per capita consumption. In Uganda, DDA being the lead agency; carried a wide range of activities such as Corporate Social Responsibility (CSR), creating awareness on the benefits of consuming milk and marketing healthy consumption.

During this period under review, the Authority celebrated four (4) national dairy events in the

districts of Bushenyi, Masindi, Soroti and Kampala, during which thousands of school going children, patients and the general public were served milk and milk products, in partnership with other stakeholders. Regional celebrations were also held in Kampala, Ntungamo and Lyantonde. The school milk programme in eight schools also promoted the consumption of milk among children and adults in the country.

2.1.3 Strengthen implementation of dairy standards and regulations

The Authority carried out conformity assessments to verify compliance of milk and milk products with dairy standards and regulations. These had significant positive impact on the dairy export volumes over the period under review. Success registered in the areas of inspections, enforcement, registration of businesses and also participating in/ coordinating dairy standards and regulations initiatives are elaborated below.

i. Inspections of dairy premises

The Authority carried out inspections on dairy premises, equipment and export/import consignments to ensure compliance to dairy standards and regulations. Premises included dairy factories, bulking centers, milk tankers etc. During this period under review, the Authority inspected 13,669 dairy businesses against a target of 9,924. The outstanding performance was as a result of additional support by partners like SNV-Tide and growth in exports and imports.

ii. Registrations of dairy businesses

DDA registered dairy business owners and issued them with registration certificates during the period of review. The business owners ranged from importers, exporters, milk collection centers, bulking centers, raw milk selling outlets, milk transporters and milk processors, and this was in accordance to dairy regulations. A total of 5,445 dairy businesses were registered against a target of 5,409 dairy businesses in the last five years.

iii. Enforcements of dairy standards and regulation

The Authority planned to carry out enforcement operations to ensure compliance with dairy standards and regulations. During this period, a total of 248 enforcement operations were carried out countrywide. These targeted compliance regarding trading/processing milk without a license issued by the Authority; use of un-recommended milk handling utensils/equipment; milk and milk products adulteration; handling milk in unsuitable premises; boiling milk in unhygienic environment for commercial purposes; poor product handling including offering expired products for sale, among others. It strengthens adherence to standards and regulation.

iv. Dairy standards improvement initiatives

Dairy standards are considered to be fundamental building blocks that are critical for establishing consistent protocols, that are universally understood and adopted for enhanced sector regulation. DDA was actively involved in standards harmonization initiatives during which nine (9) standards were drafted. During this period under review, the Authority organized / participated in the activities of the National Standards Committee, National Codex Committee, International Codex Meetings, Standards /Regulations meetings, Dairy conferences, Quality awards.

The Authority achieved the following;

- Participated actively in the conference harmonizing regulation for the most traded goods/ commodities within the region. The conference had been organized by COMESA in Nairobi, Kenya.
- Participated in a codex (food code) meeting about food additives that was held in China.
- Participated in the conference about standardization of the regional food balance sheet to include dairy, in Kenya.
- Participated in two (2) Dairy Standards Initiatives in Arusha, Tanzania to discuss: -declaration, gazetting and adoption of the approved East African standards, the removal of tariffs on milk and milk products imported from outside EAC market.
- Participated in the 3rd party accreditation of the EAC proficiency testing schemes,
- Participated in EAC Stakeholders consultative meeting on priority areas for harmonization of the East African Standards for 2016-2018 in Arusha-Tanzania.
- The Authority also participated in policy meetings with International Organization for Standards (ISO), aimed at enhancing its involvement and influence on the International Standards development processes.
- The Authority organized both regional and national quality awards aimed at rewarding dairy stakeholders who comply with dairy standards & regulations along the dairy value chain. Three (3) events were held in Kampala, Mbarara, in partnership with SNV, EADDP 11, aBi –Trust, Send a Cow, Heifer International, Packo, Agri-Pro focus and other dairy stake holders.

2.1.4 Promote better quality and safety of milk and dairy products

The Authority has been carrying out conformity assessment activities such as testing/analyzing, market surveillance, products/system certification and accreditation in collaboration with Uganda National Bureau of Standards (UNBS). DDA carries out food safety and quality audits on dairy industries to ascertain compliance levels to food safety systems, for which the industry is certified for HACCP and ISO.

Analysis of milk and milk product samples

During this period under review, a total of 17,208 milk and milk product samples were analyzed against a target of 16,500. The National Dairy Laboratory (NDL) in Lugogo, Kampala was rehabilitated and finalizing Accreditation, following critical processes like proficiency testing schemes and staff capacity building in Laboratory Systems Course based on ISO 17025:2005, facilitated by South African National Accreditation System (SANAS). The principal function of the laboratory is to ensure quality and safety of milk and milk products, and also enable acceptance of our dairy products on local, regional and international market.

ii. Market surveillance

The ultimate objective of conducting market surveillance is to ensure that the milk and milk products on the market do not endanger consumers. It also ensures the protection of other public interests such as the environment, security and fairness in trade. A total of 327 market surveillance visits were conducted countrywide in the last five years. Most of the surveillances was conducted in municipalities and town council to ensure safety of dairy products.

2.1.5 Strengthen DDA institutional capacity

For effective service delivery, the institutional capacity must be strengthened. The Authority registered remarkable progress internally to support dairy development and regulatory functions.

i. Reviewed organizational and salary structure

The Authority's organizational structure was reviewed and new positions were created to match the national mandate functions. Currently, the Authority has a total of 68 staff out of the approved 144. The salary structure was reviewed and approved by Board but the implementation is still being crippled by the stagnant wage MTEF.

ii. Recruitment of staff

The Authority had planned to recruit the following positions during the period of implementation of the strategic plan; -

- a. Director Technical Services, Principal Public Relations Officer, Stores Assistant, Monitoring & Evaluation Officer and Principal Legal Officer.
- b. Two (2) Tutors, Laboratory and Machine Technicians for Entebbe Dairy Training School.
- c. Principal Officer, Senior Officer, Officer, Administrative Assistant and Driver for Northern Regional Office.
- d. Principal Officer, Senior Officer, Officer, Administrative Assistant and Driver for Mid-Western Regional Office.
- e. Regional Manager, Dairy Development Officer and Laboratory Technician for North Eastern Region.
- f. Principal Inspector for Entebbe Airport Office.
- g. Principal Officer, Senior Officer, Officer, Administrative Assistant and Driver for Eastern Region.
- h. Principal Dairy Inspector for South Western Region Office.
- i. Two Regional Managers, two (2) Principal Officers and two (2) Officers for Mid-West and Eastern regions.

However, the Authority managed only to recruit; -

- i. Director Finance and Administration
- ii. Regional Manager, Principal Officer, Officer, Administrative Assistant and Driver for Northern Regional Office.
- iii. Principal Officer, Dairy Development Officer to strengthen North Eastern Regional Office in Soroti Municipality.

The overall performance was poor as a result of the stagnant wage ceiling during the period of plan implementation.

iii. Opening and strengthening regional offices/ border offices

The Authority adopted a regional model to take services closer to the people. Each region to have a regional office that reports to headquarters. During the implementation of the plan, only two (02) regional offices were opened from the planned six. In the FY 2016/17, northern regional office was established in Gulu Municipality to serve the northern districts of Gulu, Omoro, Pader, Lamwo, Kitgum, Amuru, Agago, Nwoya, Lira, Apac, Oyam, Dokolo, Kole,

Otuke, and Alebtong and other neighboring Districts. Meanwhile, the North Eastern regional office was opened in Soroti municipality in the FY 2017/18. The North Eastern regional office currently serves Bugisu (Mbale, Sironko, Manafwa, Namisindwa, Bududa, Bulambuli), Teso (Soroti, Serere, Kaberamaido, Katakwi, Amuria, Kumi, Ngora, Bukedea and Kapelyabyong), Sebei (Kapchorwa, Kween, Bukwo) and Karamoja (Moroto, Kotido, Kaabong, Napak, Abim, Amudat, Nakapiripirit and Nabilatuk).

Additionally, one (01) border offices to facilitate inspections and international trade. In the FY 2019/20, Mutukula to monitor dairy exports and imports. However, the regional offices are still constrained in terms of staffing numbers and logistics. The offices are not being utilized to full capacity due to the limited staff and logistics.



Figure 2: DDA Regional Model

iv. Revival of Entebbe Dairy Training School

The rehabilitation of Entebbe Dairy Training School was one of the out puts of the Project 1268: Dairy Market Access and Value Addition. The rehabilitation works at the school continued during this period under review. These infrastructure works completed include; Roofing, water connection, electrical and ceiling works of the administration block, factory and hostels; procured equipment's with a batch pasteurizer, yoghurt, ice cream, cheese processing lines, milk packaging lines and other milk processing equipment; assorted furniture and ICT equipment to assist in skilling dairy stakeholders in value addition; Rehabilitated and equipped the school laboratory and constructed bathrooms and toilets for the learners. The rehabilitation of facilities prepared skilling of dairy stakeholders in value addition and enhancing milk quality.

v. Policy Development

Institutional policies are very critical in providing strategic direction of the Authority. During this period under review, the following policy documents were developed/approved: -

a. Risk management manual

The Risk Management Manual was approved to serve as a formal acknowledgement of the commitment of the Authority to risk management. The aim of the manual is not to have risk eliminated completely, but rather to ensure that every effort is made by the Authority to manage risk appropriately to maximize potential opportunities and minimize the adverse effects of risk.

a. ICT policy

The Information Communication Technology (IT) policy for DDA was approved for the protection of its ICT system and defining baseline responsibilities for ICT security, equipment and data storage. The policy covers the IT networks for all DDA offices, the website and all the DDA information systems. This policy sets out the principles of IT systems including the maintenance, usage, storage and disposal of systems (data) and explains how they will be implemented.

a. Financial and accounting procedures manual

Financial and accounting procedures manual was approved aligned to the Public Finance Management Act, 2015 and other relevant laws. It deals with the management of DDA's finances and assets. They were prepared to serve as a guide to all staff dealing with finances in application of financial regulations, policies and procedures.

a. Human resources manual

This manual is a document for the Authority and employees on their rights, responsibilities and obligations. The Human resource manual of 2014 was amended and approved in 2019.

2.1.6 Financial Performance

The Authority's total approved budget was UGX 35.494 billion and only received UGX 30.373 billion (86%). The wage MTEF remained constant for the five (5) financial years while the non-wage and project budgets kept fluctuating during this period under review. The budget cuts and stagnant wage MTEF crippled critical dairy development and regulation activities.

Table 1.DDA's financial	perjormance	
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Budget Category	Approved Budget(UGX bns)	Released by End June 2020 (UGX bns)	%of the Budget Released
AIA	2.000	1.317	
FY2017/18	1.000	1.000	100%
FY2018/19	1.000	0.317	32%
Non-Wage	14.696	12.007	
FY2015/16	2.474	1.522	62%
FY2016/17	2.914	2.914	100%
FY2017/18	2.266	2.032	90%
FY2018/19	2.123	1.976	93%
FY2019/20	4.919	3.563	72%

Wage	7.850	7.850	
FY2015/16	1.570	1.570	100%
FY2016/17	1.570	1.570	100%
FY2017/18	1.570	1.570	100%
FY2018/19	1.570	1.570	100%
FY2019/20	1.570	1.570	100%
Project 1268	10.948	9.199	
FY2015/16	1.000	0.825	83%
FY2016/17	2.134	2.134	100%
FY2017/18	2.130	2.130	100%
FY2018/19	2.042	1.887	92%
FY2019/20	3.642	2.223	61%
Grand Total	35.494	30.373	

Source: Annual performance reports

2.1.7 Summary of performance review

Overall, plan performance is summarized below based on the key performance indicators. The plan performance was largely excellent with more than 100 percent achievement on all KPIs set except one. The plan fell short in attaining its target of rehabilitating 10 milk collection centers over the period of five years.

Table 2: Summary of the key performance statistics

Indicators		No. of dairy Stakeholders trained	No. of milk collection centres rehabilitated	No. of milk and milk product samples analyzed	No. of dairy premises/ equipment registered	No. of dairy premises/ equipment inspected	No. of milk handling equipment /utensils procured and distributed.
FY2015/16	Annual Target	2730	2	2000	1003	1362	0
	Achieved	3360	1	2655	966	1569	0
FY2016/17	Annual Target	2,730	2	2,000	1,003	1,362	300
	Achieved	2672	1	2161	1004	2630	215
FY2017/18	Annual Target	3,200	2	2,500	1,003	1,800	300
	Achieved	3,675	1	2,601	997	2,376	552
FY2018/19	Annual Target	4,800	2	5,000	1,200	2,700	315
	Achieved	5,384	1	4,776	1,443	3,848	315
FY2019/20	Annual Target	5,800	2	5,000	1,200	2,700	280
	Achieved	4,854	1	5,015	1035	3,246	411
Five-year tar		19,260	10	16,500	5,409	9,924	1,195
Achievement period	t of plan	19,945	5	17,208	5,445	13,669	1,493
Percentage o years	ver the	103.6%	50.0%	104.3%	100.7%	137.7%	124.9%

Source: Annual performance reports

2.1.8 Performance challenges

Although the plan performed above expected, the institution faced challenges that impacted on their performance. These include

1. Chronic budget cuts that crippled the implementation of key planned dairy development and regulation activities.

- 2. Whereas the Authority received additional funding of UGX 4 billion towards the end of five-year plan, the authority is still underfunded to:
 - a. Regulate the sector equitably given its national wide mandate. Increased exports of dairy products are a direct function of quality assurance activities i.e., inspections, registrations, enforcement and market surveillance.
 - b. Rehabilitate more milk collection centers (MCCs).
 - c. Establish and equip regional laboratories, acquisition and equipping mobile laboratories.
 - d. Strengthen the existing regional offices in South Western, Northern and North Eastern Uganda, and also be able to open more regional offices to take services closer to the public.
 - e. Open up more border post offices at Kikagati, Mpondwe and Katuna to effectively monitor the export and import of dairy products.
 - f. Recruit to fill critical positions like Director- Technical Services, Principal Legal Officer, Public Relations Officer, Dairy Inspectors and Dairy Development Officers.
 - g. Procure motor vehicles to facilitate inspection, enforcement and market surveillance activities country wide.
- 3. Encroachment on the Authority's land and grabbing of its defunct premises.
- 4. Cess suspension and non-compensation of Cess amounting to approximately UGX16 billion annually.
- 5. The amended regulation to stop the sale of loose milk was contested in April, 2016 in court and therefore could not be implemented (enforced). This has compromised quality and safety of milk in the market for consumers and also competes with processed milk, where there was heavy investment.
- 6. There is a court injunction on levy collection and this frustrated the Authority's effort to mobilize revenues close to UGX 14 billion.

2.1.7 Key Lessons learnt

- a. Attract local Investors in the manufacture of dairy packaging materials and yoghurt flavors to reduce the cost of imported packaging materials.
- b. Introduction of Quality Based Milk Payment System (QBMPS) in collaboration with SNV TIDE has significantly led to the improved milk quality and household incomes since pricing is based on milk composition not volumes.
- c. Continuous skilling activities of the Authority along the dairy value chain have improved human capacities of dairy stakeholders.
- d. The revival and strengthening of dairy cooperatives improved milk marketing.
- e. Limited dairy extension in most areas especially in northern Uganda has greatly affected dairy production.
- f. Northern region has potential for hay and silage making that eliminates challenges associated with pasture scarcity during dry seasons. Districts like Nwoya, major sub counties of Gulu are rich in natural pasture that can be harvested for hay and silage making.

- g. Most milk collection centres face a challenge of machine breakdown. Milk Cooler technicians are few and farmers end up relying on the suppliers of the coolers for repair and maintenance. Organizing dairy cooperatives to identify and train their cooler attendants can reduce on this constraint.
- h. Improved subsector coordination has a great impact on dairy development. DDA is strengthening partnerships with development partners to further promote growth of the dairy subsector.
- i. Dairy farmers and traders are embracing the use of road milk tankers and milk cans in transporting milk both in rural areas or urban areas. Continuous use of food grade materials will gradually eliminate plastic containers in transporting milk.
- j. Raw milk traders are a threat to processing companies since the majority buy milk directly from dairy farmers. Offering competitive prices to dairy farmers can reverse this trend.
- k. Capacity building in value addition is very critical in boosting dairy processing in the country. More stakeholders are picking interest in acquiring skills in value addition at Entebbe Dairy Training School.
- Milk marketing has improved. Majority of the stakeholders have attributed it to an
 increase in milk collection centres that are privately owned. DDA has also continued to
 prioritize the rehabilitation of the cold chain infrastructure country wide to address postharvest losses and consequently improved household income through improved milk
 marketing.
- m. Close collaborations between the Authority, dairy processors, local governments and farmers have improved animal health and eventually led to an increase in milk production. For instance, Pearl Dairy has a dedicated Veterinary Doctor that offers free extension services to dairy farmers in regard to farm management and animal health.
- n. Continuous provision of food grade milk handling equipment through cost sharing has contributed to hygienic milk production and marketing.
- o. Provision of pasture seeds and planting materials has improved animal feeding; something that is key increasing milk production.
- p. Most milk marketing associations had formed self-regulatory committees and this had greatly contributed to the compliance to dairy standards and regulations.

2.2 Crosscutting strategic issues

The Authority has been committed to addressing crosscutting issues in line with the Development Planning Regulations (2017), Public Finance Management Act (2015), HIV/AIDS Act (2014) and NEMA environmental guidelines. In the last five years, the Authority prioritized gender and equity responsive plans and budgets, addressing HIV/AIDS and environmental concerns meanwhile mindful about human nutrition with in the agriculture sector.

2.2.1 Gender and Equity

DDA has been integrating gender and equity issues in the Budget Framework Papers and Ministerial Policy Statements. The Authority has been striving to promote equality and equity in accessing dairy farm inputs /equipment and also building dairy production capacities of youth, Persons with Disabilities (PWDs), women and men country wide. These concerns are hinged on the fact that the majority of the people with disabilities, youth, women and men

lack the critical skills in dairy production for income and also lack opportunities to facilitate dairy production and marketing. It is against that background that the Authority has been targeting specific interventions to these groups. Thousands of women, youth, persons with disabilities and men have been equipped with critical skills along the dairy value chain, such as silage and hay making, breeding technologies, dairy feed production, management & utilization, business entrepreneurship, product development, post-harvest losses management, conserving the farm environment, acaricide resistance and control of tick-borne diseases, standards and regulations, cooperative benefits and group dynamics, yoghurt processing etc.

Under the period of review, a total of 19,945 dairy stakeholders have been skilled. These include 10,025 Men, 9,920 Females, 5,249 Youth and 1,025 were PWDs. The Authority rehabilitated cold chain infrastructure in areas where milk marketing infrastructure is insufficient to address equity concerns within the country for instance; -

- a. Gulu MCC was rehabilitated to facilitate milk marketing in Northern Region.
- b. Soroti MCC was rehabilitated to facilitate milk marketing and also address post-harvest losses in North Eastern region.

2.2.2 HIV/AIDS

The Authority recognizes HIV/AIDS as a serious threat to the public and has been implementing the presidential directive on HIV/AIDS. DDA allocates nearly 0.1% of the annual budget to HIV/AIDS awareness, to mitigate the negative effects of HIV/AIDS on agriculture labor force. As a result,

- a. Thousands of dairy stakeholders have been sensitized on HIV/AIDS during field activities and also trainings at Entebbe Dairy Training School. HIV/AIDS resource persons are regularly invited to share critical messages with the trainees.
- b. An HIV/AIDS coordination committee was constituted to work with Office of the President/Uganda AIDS Commission and Office of the Prime Minister.
- c. Moreover, an HIV/AIDS focal person was appointed provide progress reports on HIV/AIDS and participate in the activities organized by the national coordination office under the Office of the President.

2.2.3 Environment and Climate Change

Dairy activities pose a threat to the environment if they are not properly managed. Some of the likely effects on environment include overgrazing and dairy waste (both solid and liquid components) which contribute high biological oxygen demand and chemical oxygen demand. The dairy processing plants, milk collection centers and sales outlets have to be monitored regularly due to the nature of their activities. They must have effluent treatment sections to manage waste in line with the guidelines and regulations issued by NEMA and DDA. The Authority carried out enforcements to ensure that the guidelines and regulations are adhered to.

DDA also works with NEMA to conduct the Environmental Impact Assessment for the upcoming dairy processing plants. Trainees at Entebbe Dairy Training School were also trained on dairy waste disposal and management for clean environment. The Authority also promoted climate smart agriculture through supporting fodder conservation as a strategy to further reduce the negative effects of dairying on the environment countrywide.

2.2.4 Nutrition

The United Nations in the 2019 status report on Sustainable Development Goals reported an estimated 821 million people – approximately 1 in 9 people in the world – as undernourished in 2017, up from 784 million in 2015. The report further indicated that stunting has been decreasing in nearly every region since 2000 but still, more than 1 in 5 children under 5 years of age (149 million) remained stunted in 2018. These statistics indicated a worrying rise in world hunger for three consecutive years after a prolonged decline. Africa remains the continent with the highest prevalence of undernourishment, affecting one fifth of its population (more than 256 million people). In Uganda, 26.8% of the children under the age of five (5) years are stunted.

The Authority aims at contributing to Sustainable Development Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture. Effort is geared towards ensuring that there is no under nutrition among the children and general healthy population. This is attainable by investing in milk consumption initiatives such as school milk programmes, celebration of the June Dairy month, World Food Day among others. All these initiatives focused on promoting consumption of milk and milk products countrywide.

2.3 Emerging Issues

During the implementation of the plan, three major issues emerged; introduction of the Programme Based Budgeting, Locust's invasion and COVID -19 pandemic towards the end of the implementation period. These issues impacted on the outcomes of the previous plan and have a bearing on the next strategic planned goal and outcomes

2.3.1 Introduction of Programme Based Budgeting and Programmed Budgeting System.

Government started implementing Output Based Budgeting (OBB) in FY 2008/09. OBB focused more on delivery of outputs as compared to service delivery outcomes. With effect from FY 2017/18, Government embarked on Programme based budgeting (PBB) to strengthen the link between Government's strategic objectives, budget allocations and service delivery outcomes /results. PBB allowed Government to change its budget focus from an output-based process to Programme based one, centered on aligning resource allocation to policy priorities and improving service delivery. Programme budgeting basically provides a framework for allocating the budget according to national priorities organized within programmes.

Currently, Programme Based Budgeting (PBB) is being implemented using a web-based IT system called Programme Budgeting System (PBS) to facilitate budgeting, implementation and reporting of outputs. The Authority is gradually changing—its planning approaches to fit in the Programme based planning ecosystem. The subsequent plans will entirely be based on the Programme planning frameworks developed by the National Planning Authority. These policy shift will have a significant impact on direct and off-budget resources, coordination and implementation mechanism to implement the next plan. Mandates may shift from DDA to the Programme Working Group and other stakeholders within the programme in execution of critical projects in the dairy sub sector.

2.3.2 The global Corona Virus 2019 (Covid-19) pandemic

Covid-19, a global epidemic that was first reported in Chinese city of Wuhan has affected economies worldwide. Most economic activities have been crippled and dairy subsector

is one of the most hit subsectors in Uganda. The Authority's regulatory and development activities are greatly being affected countrywide. Skilling of dairy stakeholders along the dairy value chain has been put on hold in response to Presidential and Ministry of Health guidelines since it involves gathering of dairy stakeholders like farmers. Regulatory activities such as inspections, enforcement, market surveillance etc. have also been curtailed and the performance shortfalls are already being felt. Further spread of the virus is likely to adversely affect the dairy subsector. There may be future measures like prolonged lockdowns that will impact on the operations of dairy industry, mass transmission of the virus from humans to dairy animals, high infection rates among dairy stakeholders and potential harmful effects of the trial vaccines on dairy stakeholders and animals. This pandemic threatens dairy productivity, trade performance and quality regulation.

2.3.3 Invasion of locusts

Swarms of locusts invaded Uganda at the beginning of February 2020. These swarms entered the country from Kenya and posed a big threat on crops, forage and other vegetation in Eastern and Northern Uganda; something that has caused shortage in pasture. Further spread and multiplication of locusts is likely to affect dairy in terms of reduced milk production due to significant damage to pasture for the animals.

2.4 Institutional Capacity of DDA 2.4.1 Funding

Agriculture sector accounts for only 3.2% of the National Budget (FY 2019/20). The Dairy Development Authority's budget accounts for only 0.96% of the agriculture sector allocations and this has constrained the implementation of the Authority's National Mandate of dairy development and regulation. These is shown in the table 3 below.

Table 3: Share of the approved budget for the agriculture sector –FY 2019/20

Vote	UGX (Billions)	%age
Ministry of Agriculture, Animal Industry and Fisheries	519.49	49.31%
National Agriculture Advisory Services	145.89	13.85%
LG Agriculture and Commercial Services	122.60	11.64%
Uganda Coffee Development Authority	96.70	9.18%
National Agricultural Research Organization	79.66	7.56%
National Animal Genetic Resource Centre & Data Bank	63.24	6.00%
Dairy Development Authority	10.13	0.96%
Uganda Cotton Development Organization	8.64	0.82%
KCCA Agriculture Grant	7.19	0.68%
Grand Total	1,053.54	100.00%

Source: Agriculture Sector Budget Performance report.

DDA is among the least funded MDAs in the sector, in spite of its contribution to the sector GDP and also national accounts in terms of foreign exchange. In the table below; the wage component has stagnated over the last five years. This explains why the institution cannot attract and recruit more staff. Although the absolute revenue trend is increasing, it is not significant to drive the dairy industry demands forward. Net budgetary receipts are also low compared to revenue totals in the budget under the period of review.

Table 4: DDA five-year funding history

Financial Year	Wage-Recurrent	Non-Wage Recurrent	Development	AIA	Totals
2015/16	1,570,400,000	2,473,804,179	1,000,000,000	-	5,044,204,179
2016/17	1,570,400,000	2,914,302,179	2,134,000,000	-	6,618,702,179
2017/18	1,570,400,000	2,265,524,935	2,130,045,788	1,000,000,000	6,965,970,723
2018/19	1,570,400,000	2,122,577,287	2,042,434,987	1,000,000,000	6,735,412,274
2019/20	1,570,400,000	4,919,147,691	3,642,434,987	-	10,131,982,678

Source: Annual Budget Performance reports.

2.4.2 Human Resource Development and Management

The Authority is still thin on the ground due to severe staffing gaps. Some positions have remained unfilled ever since the organizational structure was reviewed and new positions created in 2017. Currently, the Authority has an approved structure of 144 staff but only 68 positions (47%) have been filled. This has left a staffing gap of 53% staff. This indicates a critical need for a boost in human resource capacity to effectively implement the dual mandate of providing development and regulatory services. The huge staffing gap is due to the fixed wage MTEF for the last seven (7) years highlighted in the previous section. Low staffing levels have continued to affect the delivery of dairy development and regulation activities. With only three veterinary doctors in three for six milksheds, specialized dairy development services have been inadequate meanwhile effective regulation for food safety and increased exports have been hampered.

2.4.3 Monitoring and Evaluation function in the Authority

Like any other MDA, the Authority carries out monitoring and evaluation activities in line with the national monitoring and evaluation policy (2013). These includes preparing periodic budget reports, annual reviews, publications, preparation of progress reports among others. The Authority also participates in the Joint Agriculture Sector Annual Review (JASAR) workshops, coordinated by MAAIF with the main objectives of assessing trends in overall sector performance based on SDGs, ASSP and NDP, progress of implementation of sector priorities as set out in Ministerial Policy Statement (MPS) and Budget Framework Paper (BFP) and reviewing public sector financing.

However, the M & E function is not yet fully developed due to the following;

- a. Weak M&E system
- b. Absence of the management information system to facilitate the M & E.
- c. Lack of a substantive monitoring and evaluation officer
- d. Limited budget and utilization of M&E findings.

2.5 Analysis of the Institutional Environment

Environmental scan is very critical since it has an effect on operations and functioning of DDA. The scan helps in deciding on the most efficient strategies and activities to attain the goal and the planned objectives. Both the internal and external environment is important in informing a clear strategic direction for achieving the organization mission and vision.

2.5.1 Analysis of the Authority's Internal Environment

The internal environment is analyzed using the McKinsey's 7S strategic assessment model in a combination with SWOT. It basically looks at hard and soft elements within the Authority. Hard elements include Strategy, Structure and System while the soft elements include Skills, Staff, Style and Shared values.

Table 5: SWOT Analysis- Internal Environment

McKinsey 7s	Strengths	Weaknesses	Opportunities	Threats
Current Strategy	Strong institutional relations with Government and stakeholders	Lack of change of mindset of stakeholders in technology uptake	Government support and political will	Weak extension service
	Existing legal framework	Inadequate partnerships and cooperation with other institutions and regulatory agencies.	Creation of gazette zones for investment	Changing regulatory environment.
	Clear regulatory mandate	1998.	Standards and regulations harmonization initiatives (EAC, COMESA) and related initiatives to facilitate inter/intra region trade.	Poor risk assessment, management and communication
	Existing strategic planning and budgeting documents	Undiversified and low sources of funding Low adherence to plans and budgets	Increased investment in dairy by Gov't and Private sector	Declining stakeholder participation in annual performance reviews.
	Good working relationship with development partners and private sector	Non- disclosure of budget by development partners.	Middle aged picking interest in dairy farming.	Substandard feeds and counterfeit drugs, High input costs, disease outbreaks.
	Human Resources policies present.	Implementation of the current policies is still weak.		Inadequate funding to implement designed government policies
Current structure	Approved Organizational & salary structure	Staffing gaps in the Organizational structure.	Lobby government for additional funding on wage.	Complicated salary review process - Government policy
	Structure diverse in specialization	Salaries are not competitive	Lobby for salary review.	
	Regional mode of operation.	Only 3 out of the six regions have offices	DDA has a national mandate	Chronic underfunding.
Style of leadership	Regular management meetings	Absence of Board of Directors	Benchmarking of best practices	The pending Cabinet resolution to dissolve Boards.
Current work system	ICT	Low adoption to ICT	Support from NITA	Constant changes in ICT
	Monitoring and Evaluation	Absence of management information system(MIS) for M & E	Staff to use the MIS	Lack of donor funding
	Well laid out Procurement system	Rigid procedures that delay procurements	Support from PPDA	Breach of the guidelines
	Presence of the National Dairy Analytical Laboratory	Laboratory not accredited Inadequate equipment's	Existence of dairy standards development bodies, programmes and new laboratory systems.	Increased technical barriers to trade Decreased technical support to regulation and development
	Board, Management and staff support Audit	Lack of Internal Audit Charter	Reforms in the Public Finance Management practices (PFM Act)	Slow adoption to changes in the Accountancy and Audit professions.

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	Standalone internal audit Budget	Lack of Audit Manual	Mandatory reporting to Internal Auditor	Delayed uptakes in ICT
			General and PSST	developments
			Mandatory partnership with Auditor General	Untimely detection of risks in the
				dynamic sub-sector
	Availability of a financial	Inadequate knowledge in the	Existence of oversight bodies that enforce	Continuous periodic system break
	management system (IFMS)	operations of IFMS	financial management	down at MoFPED
	Existence of internal controls and	Slow implementation of the financial	Existence of laws and Policies that that guide	Cuts in the budget cash releases
	procedures	and accounting manual	financial management	
	Availability of other supporting	Over dependence on budget	Bench marking with other sister institutions	Government policy on external
	internal policies	contributions by Government		financing
		Inadequate capacity for revenue		Default on payment of amounts
		mobilization		due by debtors
Current Environment	Objectives of the organization are	Lack of enough office space,	Partner with Government in a PPP	Encroachment of the site
	met.		arrangement so as to construct the "Dairy	
			House".	
	Prime land with investment potential	Most properties lack titles	Government property	Weakness in land policies which
	and re-development.			instead avail opportunities to
	•			private developers. E.g. grant of
				lease.
		Encroachment by land grabbers.		
	Availability of transport (motor	Motor vehicles are inadequate	Existing supportive projects and Government	Government ban on procurement
	vehicles)	_	support to help acquire more motor vehicles	of motor vehicles.
		Some of the vehicles are due for		
		disposal (lasted longer)		
	Provision of security to all office	Some premises are only guarded at	Availability of many security service providers	No clear government policy
	premises	night.	on the market.	, ,
	Existence of the legal and regulatory	Lack of internal capacity to handle all	Assistance from Attorney General and	Delayed feedback from
	frame work.	legal issues.	Solicitor General on legal issues	Government lawyers
	Collection of NTR to supplement	The Authority does not spend NTR at	Write project proposals to fund our unfunded	Government policy on external
	Gov't funding	source.	priorities.	financing
	Support from other stake holders			

DAIRY DEVELOPMENT AUTHORITY

Staff	Trainable & qualified staff	Lack of training budget	Availability of many institutions that offer	High staff turnover.
			capacity building.	
	Professionalism exhibited by staff	Uncertainty due to short tenure	Review of the contract periods	Low productivity.
		contracts.		
	Some key positions are filled		There is much skilled manpower on the	The organizational image is
		Institutional memory is lost	market.	affected
	Staff provided with medical		Government willingness to meet our budget	Budget cuts and Government
	insurance	range of staff welfare.		policies.
Skills	Knowledgeable staff	Limited continuous education	Presence of various training institutions in	Continuous updates in some the
			different disciplines	professional courses.
	Fairly adequate skill mix	Skill gaps	Capacity building	
Management's support towards		No periodical skill assessment	Performance Management Plan	
	career growth and development			
Shared Values	Adherence to the shared values	Slow implementation of the penalties	Disciplinary procedures	Low staff morale

2.5.2 External Environment Analysis

The external analysis focuses on the environment in which the Authority operates to determine how it will affect its ability to achieve its vision and mission. The analysis presented below looks at the global, regional and local aspects using the PESTEL model.

Table 6: PESTEL -External Environment

External Environment Scan					
	Strength	Weaknesses			
Political	Strong Gov't commitment in terms of financing. Strong political goodwill Peace and stability countrywide Semi-Autonomous nature of the institution. Opportunity for benchmarking from similar regional and international institutions like Kenya Dairy Board Policy framework	Slow & lengthy legislative process for regulatory related cases.			
Economic	 Continuous Government funding Development partners' funding and private sector investment. Enabling environment eg availability of credit for dairy farming. Extended and harmonized regional markets 	Existence of non-trade barriers Inadequate budgetary allocation by Government Limited funding sources Fluctuation in exchange rates Unethical business practices Inflation Weak agricultural financial services. Non-collection of levies & Cess Corruption and fraud			
Social	Young educated population Strategic partnerships with other bodies Drive to form cooperatives and Associations Existence of voluntary saving schemes	A large informal sector High dependency Ratio Low participation of youth and women Lack of skills along the value chain Poor saving culture Low knowledge of milk nutritional benefits Lack of trust and public confidence High Poverty levels Low financial literacy levels			
Technological	Availability of Government policy on ICT infrastructure i.e NITA Deepening ICT penetration Availability of technologies	Undeveloped ICT security Low adoption of existing technologies Vulnerability to e-fraud Abuse of the social media			
Environmental	Favorable climate Favorable ecological zone Existence of Government policies on conservation and disaster management	 Over grazing Land fragmentation Natural disasters (floods, locust, earth quakes) Global climatic changes Pollution 			
Legal	 Liberalization of the dairy sector Presence of a Legal framework Existing basis for legal reforms (opportunity) Growing acceptance of the legal framework 	Low response rate to the regulatory framework Slow judicial process Limited enforcement Weak legal framework			

2.5.3 Stakeholder Analysis

It is very critical for an organization to have a clear understanding of the stakeholders it works since they influence the attainment of its goal and objectives. These stakeholders are individuals, groups or institutions whose actions and interests can influence the decisions of the Authority. In developing this strategic plan, key stakeholders were identified and mapped. These were identified and divided into internal and external stakeholders.

Internal Stakeholders

These are a group of people within the organization and include the employees and Board of Directors employed and executing duties in the Authority. They have a direct responsibility of implementing this strategic plan.

Table 7: Internal Stakeholders – Roles and Responsibilities

Stakeholders	Stake in the Organization	Roles and Responsibilities
Board of Directors	Very High	 Formulate and review the policy and strategic plan of the Authority; Provide guidance to the Executive Director and the Authority's staff; Approve the appointment of technical and professional staff on the advice of the Executive Director; Monitor and evaluate the performance of the Authority against budgets and plans; Establish and approve rules and procedures for the appointment, discipline, termination and other terms and conditions of service of DDA staff; Resource mobilization Accountability to the general public
Employees	Very High	 Execute the functions of the Authority Provide skills and expertise Promote the image of the Authority High Performance Conform to the values of the authority Safe working environment Career progression
Top and Executive Manager	Very high	 Provide leadership and guidance Organize, manage, direct and control operations Be accountable to the employee, board and the public Steer the organization to implementation of the strategies, plans and budgets

External Stakeholders

These are persons, groups and or institutions who relate to or with the Authority and the sector. They influence policies, processes and resources among other dynamics that are critical in performance and operations of the Authority. The stakeholder analysis is provided in the table 9 below.

Table 8: External Stakeholders – Roles and Responsibilities

Stakeholders	Stake in the organization	Roles/Expectations
Government and	Very High	Policy and legislative development
other Agencies		• Funding
		Support in formation of guidelines
		Political Support
		Monitoring
		• Audits
		Information Sharing
		Advocacy and Sensitization
		Stable financial economy
		Employment
Parliament	Very High	Legislation
		Budget Approvals
		• Advocacy
D 1	M 1 4	• Leadership
Development	Moderate	• Funding
Partners		Advocacy Consider Position
		Capacity Building Technical Support
		Demand for transparency and accountability
General Public	Moderate	Feedback e.g. complaints, whistleblowing, compliments, etc.
General Fublic	ivioderate	Appreciation of our role.
		Understanding of the sector
		Monitoring and Evaluation of our performance
Media	Very High	Accurate and up to date information
ivicuia	very riigii	Fair and accurate reporting
		Feedback
		• Trust
		Whistleblowing
		Timely reporting on events
Suppliers	Moderate	Quality Goods and Services
Suppliers	Wioderate	Technical Support
		After Sales Services
		Timely Delivery
		Advocacy
Financial institutions	High	• Credit
		Stable Industry
International	Moderate	Sharing information
regulators in		Collaboration
· ·		Training
the dairy sector		
Learning Institutions	Moderate	To develop expertise in dairy sector
		Mentoring
		Attachment for students/on the job training
		Accurate and up to date information
		Academic Research
Researchers	Moderate	Advance knowledge/new findings
Regulatory Bodies	Very High	Partnership and coordination
		Memorandum of understanding
		Sharing information.
Beneficiaries	Very high	Trust and confidence
(farmers, processors,		Understand/appreciate the sector
exporters, importers,		Feedback e.g. complaints, whistle blowing, compliments.
transporters etc)		
Sponsors	Very high	Partnership and coordination
		Registration of stakeholder/beneficiaries
		Trust and confidence in the sector
		Understand/appreciate the sector
		Input in developing regulations for the sector

Employers	Very High	Compliance
		Making contributions
		Sector development
		Input in developing regulations for the sector

Table 9: Key Issues from the SWOT analysis

Issue no.	Issue description	Status	Priority	Impact
1.	There is no approved Dairy Policy.	A draft is in place	High	Ineffective regulation
2.	Gaps in the regulations and Dairy Act.	There is a proposal to review the regulations	High	Ineffective regulation
3.	Substandard feeds and counterfeit drugs.	The Ministry is strengthening regulation of counterfeits. There is also a Cabinet proposal to move the Animal drugs management to MAAIF.	High	Ineffective regulation of the sector.
4.	Very uncompetitive salaries and short tenure contracts.	Review of staff salaries was done; awaiting the lifting of the wage MTEF.	High	High staff turnover that affects service delivery.
5.	Encroachment on the Authority's property / land	A number of cases are in court.	High	Loss of Government property.
6.	Lack of internal capacity to handle legal issues	The Authority is pushing for recruitment of a Principal Legal Officer.	High	High litigation costs
7.	Laboratory not accredited yet.	Accreditation process is ongoing.	High	Declining acceptance of the country's dairy products on regional and international markets.
8.	Absence of Management Information System(MIS)	Work ongoing	High	Institutional reporting curtailed.
9.		Proposal to open more regional offices was approved but crippled by fixed MTEF.	High	Implementation of the National duo mandate curtailed.
10.	Persistent budget cuts	Unknown	High	Ineffective regulation and development of the dairy subsector.
11.	Staffing gaps with in the structure	Recruitment plan in place but the wage MTEF is fixed.	High	Implementation of the National duo mandate curtailed.

2.6 Status of the Dairy Value Chain 2.6.1 Milk production

The drive to increase milk production has been consistent for the last five (5) years due to strategic interventions such as adoption of improved dairy breeds, provision of improved pasture seeds and planting materials, skilling dairy farmers in good dairy farming practices etc. The country's total milk production has increased from 1.93 billion litres in 2014 to 2.5 billion litres in 2018.

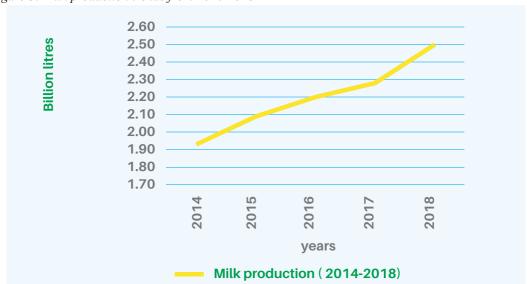
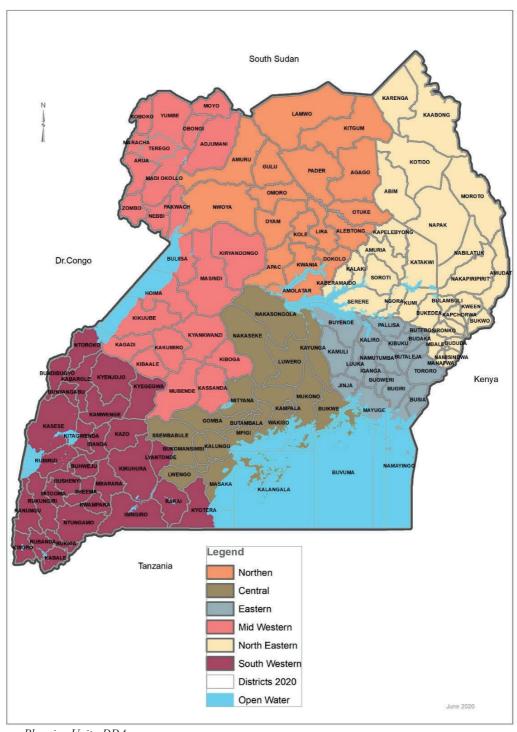


Figure 3: Milk production trends from 2014-2018

DDA Annual reports 2019

For purposes of tracking national milk production among others, the country was divided into milk production sheds namely; Northern, Eastern, South Western, Mid-Western, Central and Karamoja as illustrated in the map below. The South West milk shed contributes the highest (42 percent) of the national milk production compared to other regions. The Central and Eastern milk sheds produced 30 percent and 19 percent respectively. The other regions contributed less than 10 percent of the national milk production.

Figure 4: National milksheds 2020.



Source: Planning Unit - DDA

2.6.2 Milk productivity

Productivity has significantly improved though it varies with in regions. Productivity is looked at in terms of milk production per cow under different grazing systems for easy estimations. Central region has the highest milk production per cow while the Northern region has the lowest milk production per cow. Countrywide, the average milk production per cow for all milk sheds is approximately 10 liters.

Table 10: Regional milk production per cow

Milk Sheds	Morning	Evening	Overall
Eastern	5.59	4.23	9.82
Central	5.94	4.35	10.29
Karamoja	3.36	2.94	6.30
South Western	7.84	3.79	11.63
Mid-Western	7.62	5.47	13.09
Northern	3.51	2.74	6.25
Overall Average	5.64	3.92	9.56

Source: DDA monitoring reports

The above statistics is estimated for two milking sessions a day. The milking times might vary from farmer to farmer or even from region to region. For instance, milking at midday and this might change the overall number of litres produced per cow. Milk productivity and milk production varies according to grazing systems. The highest milk production is recorded on farms supplementing feeding with commercial grain-based feeds and also with large numbers of exotic breeds compared to local breeds.

Table 11: Milk production in liters under different grazing systems

Cattle grazing /Management System	Morning	Midday	Evening	Entire Day
Zero Grazing	7.44	-	5.37	12.81
Supplementing with Silage	3.50	-	3.50	7.00
Supplementing with hay	4.22	-	2.59	6.81
Supplementing with cut and carry fodder	5.47	-	4.50	9.97
Supplementing with crop residues	7.00	-	7.50	14.50
Supplementing with Commercial grain based feeds	12.50	15.00	10.00	22.50
Supplementing with agro industrial by products	4.00	-	2.00	6.00
Own unfenced natural pastures	4.65	-	3.16	7.81
Own unfenced improved pastures	4.73	-	3.23	7.96
Own fenced paddocked natural pastures	7.40	0.50	3.53	10.93
Own fenced paddocked improved pastures	7.03	-	4.58	11.61
Communal Lands	4.14	-	3.26	7.40

Source: DDA reports

2.6.3 Milk Collection

Milk collection/bulking has improved tremendously with a number of players in the market since the liberation of dairy sector where milk collection was monopolized by Government in early 90s through Dairy corporation. Currently, dairy cooperatives, private individuals, companies and processors own milk collection centers and road milk tankers country wide. Government through DDA has been investing in rehabilitation of the dilapidated milk collection centers that were being run by Dairy Corporation. Rural milk collection centers have increased from 335 with collection capacity of 1.5 million litres in 2014 to a total of 483 (Private and Public), with a total collection capacity of 1.9 million litres of milk in 2019.

Table 12: Summary of milk collection centres countrywide

Region	No. of Milk Collection Centre	Total Installed Capacity
Central	86	234,330
Eastern	16	35,107
Mid-Western	57	197,800
North Eastern	20	70,700
Northern	15	39,300
South Western	289	1,361,285
Grand Total	483	1,938,522

Source: DDA Management Information System

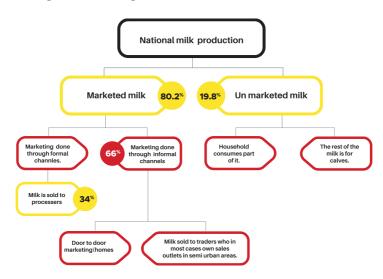
2.6.4 Milk transportation

Government banned the use of non-food grade utensils like jerry cans in transporting milk in preferences of recommended insulated vessels like road milk tankers and milk cans. The commonest means of milk transportation are road milk tankers and pick-ups equipped with food grade milk cans. Insulated road milk tankers have increased from 250 with transportation capacity of 1.6 million litres in 2015 to a total of 329 road milk tankers with total transportation capacity of 2.16 million litres, in 2019.

2.6.5 Milk Marketing

Marketed milk has increased from 70% in 2014 to 80.2% of the total production in 2018. Out of the marketed milk, 34% is processed while 66% is sold in raw form. Milk marketing has been a great source of income for the farmers and traders. The value of marketed milk increased from USD 716 million in 2015 to approximately USD 850 million (UGX 3.1trillion) in 2018. In Uganda, not all the milk produced is exchanged for money. What is considered to be milk marketed is the one that earns the farmer / trader direct income. The un marketed milk is retained for household consumption and feeding the calves. Milk marketing is done through formal and informal channels as shown in the figure 5 below. Milk that is marketed through formal channels is processed, while the one marketed through informal channels is sold in raw form, to homes, hotels, restaurants, schools to mention but a few.

Figure 5: Milk marketing channels in Uganda



2.6.6 Milk Processing

Milk processing constitute part of the milk that is marketed. The percentage of the marketed milk that is processed has increased from 20% in 2014 to approximately 34% in 2019. Dairy processers are categorized as large, medium, small scale and cottages; dealing in a variety of products such as Powdered milk; Ghee, Butter; UHT milk; Casein; Whey Protein Concentrate; Pasteurized milk; Yoghurt, Cream; Ice cream; Fermented Milk; Cheese etc. Uganda's processing companies have increased from 79 with processing capacity of 1.9 million litres in 2015 to 135 with processing capacity of 2.8 million litres in 2019. This has been as a result of new players joining the market and some processors upgrading their processing capacities. Processing is being done country wide with varying processing capacities as indicated in the table below;

Table 13: Regional dairy processing capacities

Region	Cottage	Large Scale	Medium Scale	Small Scale	Grand Total
Central	350	725,000	88,200	8,420	821,970
Eastern	400			1,500	1,900
Mid-Western	100			450	550
North Eastern	465			2,350	2,815
Northern			10,000	900	10,900
South Western	2,360	2,010,000	36,000	6,450	2,054,810
Grand Total	3,675	2,735,000	134,200	20,070	2,892,945

DDA Annual reports

2.6.7 Milk Consumption

Milk per capita consumption in Uganda has not significantly improved. Consumption has increased from 60 litres in 2015 to approximately 63.8 litres in 2019. Consumption is still relatively low as per international recommendation by WHO. The Dairy Development Authority target is to have every one consuming at least a recommended 200 litres of milk annually.

Figure 6: Milk per capita consumption from 2002-2019



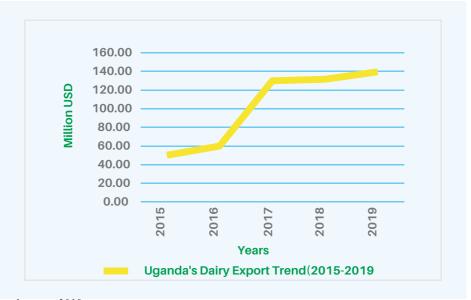
DDA Annual report, 2019.

2.7 Macro-Economic Outlook

2.7.1. Dairy Exports

Dairy processing for export has continued to grow. Dairy exports have increased from USD 50.12 million in 2015 to USD 139.5 million in 2019 significantly contributing to an increase in foreign exchange. The increase in the net exports has been as a result of increased compliance of Uganda's milk and milk products on both regional and international market standards. Exports include casein, whey proteins, UHT, milk powder; among others. The Dairy exports mainly go to EAC, COMESA countries, SADC, UAE, Nigeria, Syria, Japan, Oman, USA, Nepal & Bangladesh.

Figure 7: Uganda's dairy exports trend (2015-2019)



DDA Annual report, 2019.

2.7.2 Imports

Dairy imports have been fluctuating between USD 5.4 million in 2015 and USD 5.19 million in 2019. Major dairy imports include Infant Formula and Dairy equipment to march the growth and investment in the industry. This equipment includes dairy farm machinery, processing and refrigerating equipment. In early 90s, the country was importing powder and reconstituting it for local consumption. The dairy subsector has since grown and the trend has been reversed. With an increase in the country's capacity to process various dairy products, imports have drastically gone down. This has greatly contributed to the reduction in expenditure on dairy imports and as a result, the country's BOP has improved.

2.7.3 Employment (Jobs)

The Dairy industry has become heavily commercialized in the recent past as seen from the evidence of increasing number of investments in all segments of the value chain. There are several opportunities created in dairy farm mechanization, pastures improvement, skills enhancement, and vibrant farmers' organization structures. Other opportunities that exist include increased collective purchase of coolers, milk road tankers, increasing processing capacity, as well as improved varieties of dairy products on the market. The sector has sustained an estimated more than 100,000 jobs along the dairy value chain and still creating more. The employment opportunities created provide a good platform for Agro-industrialization and thus improved quality of life for those engaged along the dairy value chain. The EADD evaluation report (2018) from Heifer international places the average monthly net income of the farmers substantially at 2,128 USD in 2018.

2.7.4 Dairy financing

Agriculture financing in the economy is currently one of the most advocated strategies for increased agro-investments. The sector has not succeeded in attracting credit to support dairy development activities. Less than 10 percent of dairy farmers have access to the financing facilities from the government and the private commercial banks. Although dairy farmers through their cooperatives are operating Savings and Credit Cooperative Organizations (SACCOs); the level of financing is still low. Financing in terms of loans, insurance and advice is still inadequate. This is due to both supply and demand inadequacies. Dairy farmers develop apathy and lack interest to obtain credit from commercial banks due to limited information available, lack of required collateral security and informal dairy farming management practices. Meanwhile, financial institutions lack attractive financial products for dairy farmers due to speculative and volatile nature of agricultural enterprises.

Dairy Industry SWOT analysis

The dairy industry is important for the organization. The current status of the industry is presented here and informs the strategic direction and the vision and mission of the organization. The industry strengths and weaknesses are highlighted meanwhile opportunities and threats from external elements are mentioned by the level of the value chain.

Table 14. SWOT analysis of the current dairy industry, 2019

Value Chain	Strengths	Weaknesses	Opportunities	Threats
Farm level	Existence of capacity building programmes for farmers. Affordable and accessible farm labor Availability of land for dairy farming Availability of development partners e.g. dairy development organizations, academic and research institutions. Favorable climate for dairy farming, Existence of supportive dairy farmers groups and associations. Improved dairy infrastructure country wide. Availability of organic feeds for livestock.	Low farm productivityAbsence of Agricultural bank.		 Low farm gate prices, Disease out breaks, Fluctuation of milk and input prices, Inefficient service providers, Competition from other agricultural enterprises, Land fragmentation, Aging farming population, Attitude of young generation towards farming. Corona Virus Disease -2019 pandemic
Collection level	 Availability of commercial dairy farms. Government commitment to milk collection Growing bulking associations, Increasing milk collection infrastructure, Increasing access to discounted dairy equipment and milk handling utensils. 		 Available market from processors and retailers, Value addition on site, Collective marketing to maximize profits, Formation of groups and existence of dairy business hubs. 	 Power cuts and high electricity bills, Machine break down Milk adulteration, unstable prices, Uncollected milk leading to spoilage.
Transportation level and Traders	 Government support (duty free road milk tankers), Increasing investment in milk transport, Availability of milk handling equipment, Improved infrastructure. 	 Insufficient CIP systems Insufficient road milk tankers, High fuel prices, Inadequate skills in testing by transporters, Un-fair-trade practices and limited use of seals. 	 Growing processing capacity Access to credit, Access to markets, Group milk bulking and marketing. 	 Mechanical breakdown Milk adulteration Policy changes, Fluctuations in milk prices Inflation Poor feeder roads

Processors	Government commitment to agro processing. Increased number of processors, Growth of the cottage industry, Existence of processors association, Improved access to machinery for milk processing, Existence of enabling regulatory and legal framework. (DDA and UNBS), Improved shelf life of milk products.	High competition from the informal market, Weak enforcement of laws and regulations, Ilimited rural distribution channels, low staffing of dairy experts, policy gaps, Adulteration of milk.	Increased milk production Growing industrial linkages Steadily growing demand for the products (local, regional and international). Ability to reach far markets, Untapped market in some regions.	Competition from imports, VAT on imported packaging materials Counterfeit products, Non tariff barriers, Seasonal fluctuations in milk supply High costs of production eg power, High cost of machinery and financing, Inflation, Exchange rate fluctuation, Low milk product consumption, Competition from the informal market, Competition from other substitutes. Milk adulteration
Consumer level	Enabling legal framework on consumer protection.	 Inadequate promotion of milk consumption, Weak enforcement of the laws. Lack of reliable market information, Knowledge gap on consumer protection rights and dietary values. Poor surveillance 	 Milk consumption campaigns Wide range of dairy products, Feedback from consumers, Better distribution. 	 Adulteration of milk, Counterfeit dairy products, Policy changes, Irregular supply of milk, High prices of processed dairy products, Competition from other substitutes.

3.0 THE STRATEGIC DIRECTION

3.1 Vision, mission and core values

The Authority envisions "Dairy for improved health and prosperity of Ugandans." With a mission "To increase productivity and competitiveness of the dairy sector and enhancing its contribution to population health and wealth of all Ugandans"

In pursuit of its Vision and to achieve its Mission, DDA will be guided by the following core values;

- 1. Professionalism
- 2. Integrity
- 3. Teamwork
- 4. Loyalty
- 5. Accountability

3.2 Strategic goal, key outcomes and focus areas

The goal of the strategic plan is to enhance dairy value addition and quality for increased market competitiveness. Through a comprehensive analysis of DDA's mandate, vision, mission, the situational analysis and the Agro-industrialisation agenda, the Authority has identified six (6) key development outcomes. These include;

- 1. Increased milk production and productivity
- 2. Reduced post-harvest losses and enhanced milk processing and marketing
- 3. Improved safety of dairy products and sustained market competitiveness
- 4. Increased domestic milk consumption and marketing
- 5. Strengthened dairy institutions.
- 6. Professionalised dairy industry

To achieve the above institutional key outcomes, the Authority will align and concentrate its efforts towards five strategic core areas to be implemented over the plan period. These areas include;

- i. Dairy production and productivity
- ii. Post-harvest handling
- iii. Dairy value addition and market competitiveness
- iv. Quality assurance and domestic dairy consumption
- v. Dairy institutional strengthening

Achievement of the above goal and outcomes are highly dependent on peace, security, macroeconomic reforms in the sector and commitment to fund the dairy subsector. The Authority will pursue the above goals under a premeditated theme of "Dairy cottage revolution for employment, increased farmers' incomes and wealth creation."

3.3 Plan outcomes and interventions

3.3.1 Increased milk production and productivity

- Increasing access to dairy inputs
- Improving animal feed resources
- Improving the quality of breeds
- Promote milk production and productivity potential of goats, camels and sheep
- · Dairy farmers capacity building

- Scaling up Artificial Insemination
- Promote Sustainable feed management practices.
- Promote Use of ICT in dairy herd monitoring and farm management.
- Promotion of improved dairy farming practices.

3.3.2. Reduced post-harvest losses and enhanced milk processing and marketing post-harvest losses

- Promoting dairy cottage industries.
- Support the establishment of dairy processing industries in Gulu and Soroti cities.
- Improving milk cold chain infrastructure countrywide through rehabilitation, construction and equipping of MCCs
- Establishment of cottages and small-

- scale processors through organized dairy groups and cooperative
- Skilling of youths, men & women in dairy value addition
- Provide energy saving technologies for the rural dairy bulking processing cottages
- Rehabilitation of existing Mbale dairy processing plant.

3.3.3. Improved safety of dairy products and sustained market competitiveness

- Enhance dairy inspections for quality standards along the value chain
- Support dairy product diversification
- Strengthening enforcement and adherence to milk quality requirements for food safety.
- Increasing marketing of dairy

- products in the domestic, regional and international markets
- Strengthen market surveillance and provide rewards and sanctions for compliances
- Improve on transportation and safety of dairy products especially CIP

3.3.4. Increased domestic milk consumption and marketing

- Rollout school milk feeding programme countrywide.
- Strengthen milk consumption awareness campaigns
- Development of new marketing and strengthen existing markets

3.3.5 Strengthened dairy institutions

- Strengthen coordination with other government institutions in design and implementation of policies and programmes.
- Capacity building of dairy institutions and its stakeholders
- Construction of the dairy house for

DDA

- Establish and strengthen regional offices
- Strengthen linkages between DDA and the private sector
- Development of the dairy masterplan

3.3.6 Professionalized dairy industry

- Upgrading and equipping the EDTS into a fully-fledged college and incubation center.
- Organise stakeholders in dairy professional groups

3.4 Five-year costed outcomes interventions, outputs and actions

The following interventions and actions will be embarked on by DDA in the next five years to achieve the corresponding outputs. These outputs will drive the attainment of the outcomes in the six core areas and thus attainment of the planned goal. The tables below summaries five-year costed intentions and actions by region/cost centre and strategic outcome.

Table 14: Five-year interventions and outputs for central region

Objectives	Interventions	Outputs	Activity	Target	Cost in to make it '000						
, v	Three ventions		Activity	rarget	YR 1	YR 2	YR 3	YR 4	YR 5	Total cost	
Increase milk production and	Improving the quality of breeds	Quality of breeds improved	Procure embryos	39 embryos	27,280	33,320	43,800	53,280	53,280	210,960	
productivity;	Promote milk production and productivity potential of goats, camels and sheep	Milk production and productivity potential of goats, camels and sheep Promoted	bench marking at international level and local	40 farm visits	43,040	45,440	47,840	50,240	52,640	239,200	
	Dairy farmers capacity building	Dairy farmers capacity enhanced	Training dairy farmers	40 trainings	38,240	40,640	43,040	45,440	45,440	212,800	
	Dairy farming institutional support	Dairy farming institution supported	Procure pasture seeds	4,000kgs of pasture seeds	34,400	34,400	34,400	34,400	34,000	171,600	
	Scaling up Artificial Insemination	Artificial insemination scaled up	Procure straws	150 straws procured	19,960	22,960	25,960	28,960	31,960	129,800	
	Promote Sustainable feed management practices.	Sustainable feed management practices promoted	Procure chuff cutters	30 chuff cutters	30,000	36,000	42,000	48,000	54,000	210,000	
	Promote Use of ICT in dairy herd monitoring and farm management.	Use of ICT in dairy herd monitoring and farm management Promoted	bench marking at international level and local	40 farm visits	43,040	45,440	47,840	50,240	52,640	239,200	
	Promotion of improved dairy farming practices.	Dairy farming practices improved	Training in improved dairy farming practices	40 trainings	38,240	40,640	43,040	45,440	45,440	212,800	
Enhanced Milk Processing and marketing;	Support for improved post-harvest milk handling	Post-harvest losses reduced	Procure milk cans	500 milk cans	40,000	40,000	40,000	40,000	40,000	200,000	
	Support for improved post-harvest milk handling	Post-harvest losses reduced	Procure try-cycles	25 tricycles	42,500	42,500	42,500	42,500	42,500	212,500	
	Rehabilitation of Milk Collection Centers	Post-harvest losses reduced	Rehabilitate the milk collecting Centre	5 Milk collecting Centre	290,000	290,000	290,000	290,000	290,000	1,450,000	

	Skilling of Youth, men and Women in dairy value addition Support access to processing	Promote production, consumption of milk and milk products promotion of quality and safety of milk	Skilling Youth, Men,& Women in dairy value addition Applications for quality mark	120 stakeholders 50cottages	28,900	28,900	28,900	28,900	28,900	144,500
	technology and infrastructure	and milk products			30,000	30,000	30,000	30,000	30,000	150,000
	Support access to processing technology and infrastructure	promotion of quality and safety of milk and milk products	Inspection fee	50 cottages	9,000	9,000	9,000	9,000	9,000	45,000
	Support access to processing technology and infrastructure	Reduction of post- harvest losses and improve household income	Procure cottage units for yoghurt, cheese, ghee	5 units	100,000	100,000	100,000	100,000	100,000	500,000
	Construction new MCCs	increased dairy marketing access	construction of milk collecting Centre	5 units	290,000	290,000	290,000	290,000	290,000	1,450,000
	Procurement and installation of milk coolers.	Post-harvest losses reduced	Procurement coolers	5units	280,000	280,000	280,000	280,000	280,000	1,400,000
Improve market competitiveness and quality assurance	Enhance dairy inspections for quality standards along the value chain	Compliance to dairy standards and regulations enhanced	Inspection dairy premises and factories	10000 stakeholders	81,160	81,160	81,160	81,160	81,160	405,800
	Enhance dairy inspections for quality standards along the value chain	Compliance to dairy standards and regulations enhanced	Feedback meeting with stakeholders	1600 stakeholders	39,340	39,340	39,340	39,340	39,340	196,700
	Enhance dairy inspections for quality standards along the value chain	Compliance to dairy standards and regulations enhanced	Registration, licensing and distribution	10000 stakeholders	34,800	34,800	34,800	34,800	34,800	174,000

Enhance dairy	Compliance to	Procure printing	Assorted						
inspections for quality standards along the value chain	dairy standards and regulations enhanced	services for licenses, books, manuals, SOP etc.		40,000	40,000	40,000	40,000	40,000	200,000
Enhance dairy inspections for quality standards along the value chain	Compliance to dairy standards and regulations enhanced	Create public awareness on safety of milk and milk products,	Assorted	72,000	72,000	72,000	72,000	72,000	360,000
Support product diversification	increased dairy marketing access	skilling dairy farmers /cottage into product diversification	40 cottages	38,020	38,020	38,020	38,020	38,020	190,100
in cold chain infrastructure	increased dairy marketing access and reduction of post- harvest looses	Procure coolers with all accessories	5 coolers	280,000	280,000	280,000	280,000	280,000	1,400,000
Strengthen market surveillance	enhanced compliance to dairy standards and regulations	Carry out market surveillance	4	41,380	41,380	41,380	41,380	41,380	206,900
Provide rewards and sanctions for compliances	Quality and safety of milk and milk products enhanced	National quality award	5	50,000	50,000	50,000	50,000	50,000	250,000
Improve on transportation and safety of dairy products - CIP	Reduction of post- harvest looses	Construction of CIP for milk tankers and refrigerated trucks.	3	59,065	59,065	59,065	20,000	20,000	217,195
Conduct routine enforcement exercises	Compliance to dairy standards and regulations enhanced	standards and	40	100,760	100,760	100,760	100,760	100,760	503,800
Participate in international trade expos	Strengthened coordination with partners and support enhancement	bench marking at international level and local	Assorted	40,000	40,000	40,000	40,000	40,000	200,000

Increase domestic	Promote school	Milk and	Increased domestic	20 campaigns						
milk consumption;	milk consumption campaigns	milk products consumption increased	milk consumption		236,472	236,472	236,472	236,472	236,472	1,182,360
	Support institutional dairy consumption campaigns	milk products consumption increased	Institutional Dairy consumption campaigns supported	10 campaigns	27,392	27,392	27,392	27,392	27,392	136,960
	National milk consumption campaigns	Milk and milk products consumption increased	Increased domestic milk consumption	20 campaigns	280,000	280,000	280,000	280,000	280,000	1,400,000
	Promote integration of dairy products in to other foods	Milk and milk products consumption increased	Increased domestic milk consumption	20 campaigns	3,224	3,424	3,624	3,824	3,824	17,920
Total					2,808,213	2,833,053	2,862,333	2,851,548	2,864,948	14,220,095

Table 15: Five-year interventions and outputs for Eastern region

Objectives	Outcome	Intervention	Output	Targets	Indicators			Annual (Costs "000		
Objectives	Outcome	Their vention	·	Ü	indicators	Year1	Year 2	Year 3	Year 4	Year 5	Total budget
Increase milk production and	Milk Production and Productivity	Dairy farmers capacity building	Dairy farmers capacity enhanced		No. of dairy farmers trained	40,275	40,275	40,275	40,275	40,275	201,375
productivity	Increased	Dairy farming institutional support	Dairy farming institutional capacity supported	50	No. of farmer institutions supported	13,000	13,000	13,000	13,000	13,000	65,000
		Promote Sustainable feed management practices	Dairy farmers capacity in pasture establishment & management enhanced	1,500	No. of dairy farmers trained	-	12,000	12,000	12,000	12,000	48,000
		Procure & distribute pasture seeds and planting materials	Improved pasture gardens established	6000	No. of kgs of pasture seeds &planting material distributed	-	84,000	84,000	84,000	84,000	336,000
		Procure & distribute of chuff cutters	Chuff cutter distributed	20	No. of chuff cutters procured	-	70,000	-	70,000	-	140,000
		Construct Demonstration Milk Parlours	Milk Parlours constructed	5	No. of milk parlours const.	-	10,000	10,000	10,000	10,000	40,000
		Construct Demonstration Cattle crushes	Cattle crushes constructed	8	No. of cattle crushes constr.	-	14,000	14,000	14,000	14,000	56,000
		Procure Bucket Spray Pumps	Bucket Spray Pumps distributed	20	No. of bucket spray pumps procured	-	12,000	-	12,000	-	24,000
		Improving the quality of breeds	improved	250	No. of dairy cattle procured	-	302,200	302,200	302,200	302,200	1,208,800
		Promote milk production and productivity potential of goats, camels and sheep	Milk production and productivity potential of goats promoted	100	No. of dairy goats procured	-	-	75,000	75,000	-	150,000

Enhanced Milk	Milk Processing	Support for improved	Post-harvest	500	No of milk cans						
Processing and marketing	and marketing enhanced		milk handling improved		procured	-	55,000	55,000	55,000	55,000	220,000
		Rehabilitation of Milk Collection Centers	Milk Collection Centers rehabilitated	2	No. of MCC rehabilitated	-	200,000	-	200,000	-	400,000
		Construction new MCCs	New MCCs constructed	2	No. of MCC constr.	-	-	-	250,000	250,000	500,000
		Procurement and Installation of milk coolers	Milk coolers procured and installed	6	No. of coolers	-	280,000	280,000	280,000	280,000	1,120,000
		Establishment of cottages and small scale processors	Cottages and small scale processors established	30	No. of stakeholders trained	4,136	4,136	4,136	4,136	4,136	20,680
		Procurement of small scale value addition equipment	Small scale value addition equipment distributed	3	No. of processing lines procured	-	100,000	-	100,000	100,000	300,000
		value addition	Youths & women up skilled in dairy value addition	50	No. of stakeholders trained	3,000	3,000	3,000	3,000	3,000	15,000
		Provide energy saving technologies for the rural dairy bulking agro processing cottages	Energy saving technologies for the rural dairy bulking agro processing cottages provided	9	No. of biogas plants construct	-	12,500	12,500	12,500	12,500	50,000

Improve market competitiveness and quality assurance	Market competitiveness and quality assurance improved	Enhance dairy inspections for quality standards along the value chain	Dairy inspections for quality standards along the value chain enhanced	950	No. of premises inspected	56,400	56,400	56,400	56,400	56,400	282,000
	•	Strengthen market surveillance	Market surveillance strengthened	30	No. of market surveillance visits	28,800	28,800	28,800	28,800	28,800	144,000
		Conduct routine enforcement exercises	Enforcement to compliance to dairy standards and regulations strengthened	8	No. of enforcement operations carried out	18,800	18,800	18,800	18,800	18,800	94,000
		Carry out quality and safety feedback meetings	Quality & safety feedback system strengthened	8	No. of meetings held	5,000	5,000	5,000	5,000	5,000	25,000
		Improve on transportation and safety of dairy products	Transportation and safety of dairy products improved	6	No. of CIP systems procured	1	-	-	26,063	4,063	30,126
		Participate in International Trade Expos and standards conferences	Compliance to international protocols enhanced	10	No. of expos & conferences attended	40,275	40,275	40,275	40,275	40,275	201,375
			Quality infrastructure improved	1	No. of mobile lab van procured	-	-	450,000	150,000	-	600,000
		Promote compliance to standards	dairy standards enhanced	2	No. of Award ceremonies	-	-	30,000	-	30,000	60,000
Increase domestic milk consumption		Promote school milk consumption campaigns	Domestic milk consumption increased	4	No. of campaigns	-	10,000	10,000	10,000	10,000	40,000
		Support institutional dairy consumption campaigns	Domestic milk consumption increased	4	No. of JDMs	-	40,000	40,000	40,000	40,000	160,000
		Participate in Agricultural expos and trade expos	Domestic milk consumption increased	6	No. of agric. Expos attended	-	30,000	30,000	30,000	30,000	120,000
Total						209,686	1,441,386	1,614,386	1,942,449	1,443,449	6,651,356

Table 16: Five-year interventions and outputs for Northern region

	*					Annual	Costs "000		
Objective	Intervention	Output	Targets	YR 1	YR 2	YR 3	YR 4	YR 5	Total
Increase milk production and productivity	good dairy farming practices, hygienic milk production and testing, silage and hay making, group dynamics, and breeding technologies.	Capacity of dairy stakeholders to adopt and practice modern and sustainable dairy practices enhanced	8000 stakeholders	18,624	37,248	109,250	114,713	120,448	400,283
		Modern and sustainable dairy practices demonstrated at village level	120 households in 4 villages	0	609,900	640,395	672,415	706,035	2,628,745
	Support formation of new/ strengthen existing dairy farmer's associations/cooperatives.	Dairy Farmer Institutions strengthened	35 groups	8,085	8,489	8,914	9,359	9,827	44,674
	Pilot Dairy Goats' Farming to enhance nutrition	Nutrition in resource constrained female headed households enhanced	12 Households	0	10,000	10,500	11,025	11,576	43,101
		Dairy farmers exposed to modern and sustainable dairy technologies	16 visits	6,646	13,192	17,515	18,390	19,310	75,053
	Support Youths and and Women Groups for Commercial Dairy Feeds Production	Youths and women income enhanced	25 groups supported	5,000	10,000	10,500	11,025	11,576	48,101
	Procure and distribute pasture seeds and seedlings	Improved pastures and forges grown for dairy cattle	1500 kg Chloris, 750 kg centrosema, 1000 bags Napier	15,000	29,200	30,660	32,193	33,803	140,856
Improve post- harvest milk	Rehabilitate and Equip Milk Collection Centers	Post-harvest milk losses reduced	5	0	450,000	472,500	496,125	529,093	1,947,718
handling, milk processing and	and matching generators	Post-harvest milk losses reduced	20	0	750,000	780,000	826,000	868,219	3,224,219
Marketing	Procure and distribute appropriate milk buckets, cans, sieves, scoops		300 cans, 500 buckets, 200 scoops, 200 sieves	20,000	40,000	60,000	60,000	60,000	240,000
	value addition and product diversification	Increased income from Dairy cottages	400 youths and women	5,000	15,000	20,000	20,000	20,000	80,000
	Procure value addition technologies for Dairy Farmers Cooperatives	Increased value addition and income for dairy cooperatives.	4 cooperatives	20,000	250,000	250,000	250,000	250,000	1,020,000

	Support dairy cottages access processing technology and infrastructure	Increased income from Dairy cottages	20 cottages	3,000	15,000	20,000	30,000	30,000	98,000
	Support Formation and registration of Milk traders' and Milk Processors' Associations	Milk Traders and Processors institutions formed and strengthened	8 associations	5,130	10,260	10,775	11,320	11,877	49,362
	Support cottages to access renewable energy sources.	cottages using solar energy	20 cottages	0	20,000	21,000	22,050	23,153	86,203
Improve market access, competitiveness and	Sensitize milk handlers, traders and processors on dairy regulations and standards	Compliance to dairy regulations and standards enhanced	20 meetings	4,200	4,200	4,200	4,200	4,200	21,000
quality assurance for milk and milk products	Sensitize milk handlers, traders and processors on dairy regulations and standards	Compliance to dairy regulations and standards enhanced	20 radio talk shows	5,360	5,628	5,909	6,205	6,515	29,617
	Inspect milk handling premises and equipment	Consumer Safety enhanced, increased revenue from milk and milk products	50 premises , 3 road milk tankers,	0	41,213	43,273	45,437	47,709	177,632
	Enforce Dairy standards and Regulations	Consumer Safety enhanced, increased revenue from milk and milk products	40 enforcement exercises	36,120	37,926	39,822	41,813	43,904	199,585
	Carry out market surveillance on milk retail outlets	Consumer Safety enhanced, increased revenue from milk and milk products	40 market surveillance exercises	0	41,213	43,273	45,437	47,709	177,632
	Strengthen the Regional Laboratory for microbial and chemical Analysis	Consumer Safety enhanced, increased revenue from milk and milk products	water bath, centrifuge, culture media, distillation unit,	0	100,000	5,000	5,000	5,000	115,000
	Conduct Regional Dairy Quality Awards	Innovative and Compliant stakeholders recognized and rewarded	4 events	0	50,000	50,000	50,000	50,000	200,000
	Procure 1 mobile laboratory van	Quality assurance enhanced	1 van	0	0	500,000	-	-	500,000
	Organize quality and safety feedback meetings	stakeholders receiving feedback	40 meetings	4,000	4,000	4,000	4,000	4,000	20,000
	Deploy staff at Uganda Sudan border.	Enhanced monitoring of Milk and milk products' imports and exports.	130 inspection visits/ 40 premises registered	0	3,600	3,600	3,600	3,600	14,400

Promote domestic consumption of milk	Organize Regional June Dairy Month events	Increased awareness about benefits of milk consumption.	4 events	0	50,000	50,000	50,000	50,000	200,000
and milk products	Organize National June Dairy Month event	Increased awareness about benefits of milk consumption.	1 event	100,000	0	0	0	0	100,000
	Sensitize The public on nutritional benefits of milk	Increased awareness about benefits of milk consumption.	120 radio talk shows	34,560	34,560	34,560	34,560	34,560	172,800
	Support consumption in less disadvantaged communities	Nutrition of the beneficiaries enhanced	15000 beneficiaries	8,000	16,000	16,000	16,000	16,000	72,000
	Organize dairy quizzes and debates among school children		30 debates and 30 quizzes	4,000	8,000	22,950	22,950	22,950	80,850
Grand Total				302,725	2,664,629	3,284,596	2,913,817	3,041,064	12,206,831

Table 17: Five-year interventions and outputs for North-Eastern Region

Objectives	Outputs	Activity	Toward			Cos	st in '000		
Objectives	Outputs	Activity	Target	YR 1	YR 2	YR 3	YR 4	YR 5	Total cost
Increase milk production and	Increased number of quality dairy breeds of animals	Procure and distribute improved breeds of cattle	2800	0	175,000	1,750,000	1,750,000	1,750,000	5,425,000
productivity;	Increased milk production and productivity	Conduct benchmarking farm visits	25 farm visits	0	20,269	20,269	20,269	20,269	81,076
	Increased milk production and productivity	Procure and distribute improved breeds of dairy goats	60 dairy goats	0	22,500	22,500	22,500	22,500	90,000
	Increased number of dairy farmer trained	Training of dairy farmers	8000	0	42,066	42,066	42,066	42,066	168,264
	Increased number of farmer institutions supported, created and strengthened	Formation and Strengthening of cooperatives	35	3,245	10,465	10,465	10,465	10,465	41,860
	Increased access to AI services by the farmers	Identification of personnel for training in AI	30	0	15,000	15,000	15,000	15,000	60,000
	Increased availability of feed throughout the year	Supporting establishment of fodder banks at dairy farms	68 fodder banks	0	25,250	25,250	25,250	25,250	101,000
	Increased availability of feed throughout the year	Training dairy farmers in feed conservation, management and feeding	8000 farmers	0	42,066	42,066	42,066	42,066	168,264
	Increased access of ICT by farms for improved dairy herd farm monitoring and management	Procure equipment's for data collection and management	80 equipment's	0	50,000	50,000	50,000	50,000	200,000
	Increased number of farmer trainings conducted	Training dairy farmers in improved dairy farming practices	32 training exercises	0	28,000	28,000	28,000	28,000	112,000

Enhanced Milk	increased access to processing	Rehabilitate and equip DDA	1 factory	0	2,000,000	2,000,000	2,000,000	2,000,000	8,000,000
Processing and	technology and infrastructure	factory (Mbale)	1 140001	Ū	2,000,000	2,000,000	2,000,000	2,000,000	0,000,000
marketing;	Increased number of milk handling equipment's distributed to dairy stakeholders	Procure milk cans	400 milk cans	0	40,000	40,000	40,000	40,000	160,000
	Post-harvest losses reduced	Procure tricycles	8 tricycles	0	16,000	16,000	16,000	16,000	64,000
	Increased number of operational DDA Milk Collection Centers	Rehabilitation of Milk Collection Centres	4 MCCs	250,000	150,000	150,000	150,000	150,000	600,000
	Increased number of youth, men and women trained and involved in Dairy value addition activities	Identification of youth, men and women for training in value addition	800 to be trained	0	40,000	40,000	40,000	40,000	160,000
	Increased number of cooperatives supported with value addition equipment's	Procure value addition equipment's	20 Cooperatives	0	25,000	25,000	25,000	25,000	100,000
	Increased number of new MCCs constructed	Construct new Milk Collection Centres in the region	4 Mccs	0	200,000	200,000	200,000	200,000	800,000
	Increased number of coolers procured and installed coolers	Procure milk coolers	8 coolers	0	400,000	400,000	400,000	400,000	1,600,000
	Increased number of rural dairy bulking and agro processor cottages	Support establishment of on- farm energy saving technologies	28 cottages	0	21,000	21,000	21,000	21,000	84,000
	Number of cottages established	Incubate 14 MCC in to cottage industries	14 cottages	0	125,000	150,000	250,000	300,000	825,000
Improve market competitiveness and quality assurance	Increased number of inspection exercises conducted to ensure quality standards	Conducting inspection of dairy premises to enhance compliance to quality standards	600 premises	8,960	45,615	45,615	45,615	45,615	182,460
	Compliance to dairy standards and regulations enhanced	Carry out quality and safety feedback meetings	40 quality feedback meetings	0	20,000	20,000	20,000	20,000	80,000
	Compliance to dairy standards and regulations enhanced	Create public awareness on safety of milk and milk products, HACCP, Regulation, standards and mil testing techniques.	Assorted	0	62,300	62,300	62,300	62,300	249,200
	Compliance to international protocols enhanced	Participating in international Trade Expos and standard conferences	8	0	21,450	21,450	21,450	21,450	85,800
	Increased market access	skilling dairy farmers / cottage into product diversification	30 cottages	0	22,000	22,000	22,000	22,000	88,000

	Increased number of farmer cooperatives supported with cold chain infrastructures	Procurement of milk coolers	8 coolers	0	400,000	400,000	400,000	400,000	1,600,000
		Conduct market surveillance to promote compliance to quality standards	48	0	31,208	31,208	31,208	31,208	124,832
	Increased number of dairy stakeholders rewarded	Conducting evaluation to assess best dairy farmers and reward them	80	0	50,000	50,000	50,000	50,000	200,000
	MCCs	Procure Tri cycles and distribute to Cooperatives for milk transportation	8	0	16,000	16,000	16,000	16,000	64,000
	Increased number of enforcement exercises conducted	Conducting enforcement exercises	48 exercises conducted	0	43,286	43,286	43,286	43,286	173,144
Increase domestic milk consumption;	Increased number of milk consumption campaigns carried out in schools	Conduct milk consumption campaigns in schools	40	0	35,000	35,000	35,000	35,000	140,000
	campaigns conducted	Conduct milk consumption campaigns in various institutes	4	0	70,000	70,000	70,000	70,000	280,000
	Milk and milk products consumption increased	Conducting Regional domestic milk consumptions	8	0	140,000	140,000	140,000	140,000	560,000
	No of cottage processors supported	Supporting processors with value addition equipment's	20	0	10,000	10,000	10,000	10,000	40,000
Total				262,205	4,414,475	6,014,475	6,114,475	6,164,475	22,707,900

Table 18: Five-year interventions and outputs for South-West region

Objectives	Interventions	Activities	ies Outputs				Annual C	Costs "000"		
Objectives			•	Target	YR1	YR2	YR3	YR4	YR5	Total Cost
Increase milk production and		Heifers	Dairy Heifers procured	500	400,000	400,000	400,000	400,000	400,000	2,000,000
productivity;	Promote milk production and productivity	Procure good dairy Goats	Dairy Goats procured	300	42,000	42,000	42,000	42,000	42,000	210,000
	potential of goats, camels and sheep	Benchmarking	Dairy stakeholders taken for benchmarking visits	300	6,673	6,673	6,673	6,673	6,673	33,365
	Dairy farmers capacity building	Train dairy farmers in good dairy farming practices	Dairy stakeholders trained(Good dairy farming practices & Mind set change)	8,400	129,240	142,164	156,380	172,018	189,220	789,022
		Procure educational Brochures	Brochures procured		10,000	0	0	0	0	10,000
		Procure Posters	Posters procured		10,000	0	0	0	0	10,000
		Procure DDA calendars	Calendars procured(Assorted)		30,000	0	0	0	0	30,000
	institutional support	Create and support dairy farmers groups	supported	80	57,440	57,440	57,440	57,440	57,440	287,200
	Scaling up Artificial Insemination	Procure semen bank	AI Semen Bank established (procure 2 Nitrogen flasks of 50 ltrs. each)	2	9,600	0	0	0	0	9,600
		Procure liguid Nitrogen flask	Nitrogen flasks procured (3 ltr cap.)	2	5,600	0	0	0	0	5,600
		Procure liquid Nitrogen	Liquid Nitrogen litres procured	100	800	800	800	800	800	4,000
		Procure semen	Semen straws procured	100	2,000	2,000	2,000	2,000	2,000	10,000
		Procure AI Kits	AI Kits procured	2	3,200	0	0	0	0	3,200
		Train Staff	AI Staffs trained(DDA Staff)	2	4,000	0	0	0	0	4,000
		Procure motor cycle	Motor cycles procured	2	0	30,000	0	0	0	30,000
	Promote Sustainable feed management practices.	Procure pasture planting materials	Pasture seeds & planting materials procured	5,000	38,000	38,000	38,000	38,000	38,000	190,000
		Procure hay baler	Hay balers procured	4	800,000	0	0	0	0	800,000
		Procure Chaff cutter	Chaff cutters procured	60	84,000	84,000	84,000	84,000	84,000	420,000
	Promote Use of ICT in dairy herd monitoring	Procure Ipads	Ipads procured(for staff & some selected farmers)	100	0	90,000	90,000	60,000	60,000	300,000
	and farm management.	Procure Herd monitoring App	Herd monitoring App	1	11,000	0	0	0	0	11,000
	Promotion of improved	Construct milk sheds	Milk sheds constructed	20	88,000	88,000	88,000	88,000	88,000	440,000
	dairy farming practices.	Construct cattle Crush	Cattle Crush constructed	60	84,000	84,000	84,000	84,000	84,000	420,000
		Construct Dam lined water harvesting tanks	Dam lined water tanks constructed	20	80,000	80,000	80,000	80,000	80,000	400,000

Enhanced Milk	Support access to	Linking stakeholders to	Assessments and linkages made							
Processing and	processing technology	service providers	rissessments and minages made	500	50,000	50,000	50,000	50,000	50,000	250,000
marketing;	and infrastructure				,		2 2,0 2 2	2 2,0 2 2	,	
	Support for improved	Procure milk cans	Milk cans procured	1,000	900,000	900,000	900,000	900,000	900,000	4,500,000
	post-harvest milk	Procure milk buckets	Milk Buckets procured	1,250	37,500	37,500	37,500	37,500	37,500	187,500
	handling	training on clean and	improved skills, KNOWLEDGE							
		hygienic milk handling	AND ATTITUDE and	2000	58,000	58,000	58,000	58,000	58,000	290,000
		practices	competence along value chain							
	Rehabilitation of Milk	Rehabilitate milk	Milk collection centres	3	600,000	0	0	0	300,000	900,000
	Collection Centers	collection centres	rehabilitated	3	000,000	U	O	Ü	300,000	700,000
	Skilling of Youth, men	training on milk value	improved knowledge in dairy							
	and Women in dairy	addition	technology value addition	3000	122,000	118,000	118,000	118,000	118,000	594,000
	value addition									
	Procurement of small	Procuring batch	dairy cooperatives supported for							
	scale value addition for	pasteurizers for	value addition	45	120,000	120,000	120,000	120,000	60,000	540,000
	cooperatives	cooperatives	1.							
		procuring packaging	dairy cooperatives supported for	45	50,000	50,000	50,000	50,000	60,000	260,000
	Construction new MCCs	units for cooperatives	value addition MCCs constructed				ŕ		ŕ	ŕ
	Construction new MCCs	Construct new MCCs	MCCs constructed	4	0	450,000	450,000	450,000	450,000	1,800,000
	Procurement and	Procure milk Coolers	Milk coolers procured	50	0	3,000,000	1,500,000	1,500,000	1,500,000	7,500,000
	installation of milk	Assessment and	Premises assessed and installed	50	110,000	110,000	110,000	110,000	110,000	550,000
	coolers.	installation of coolers		30	110,000	110,000	110,000	110,000	110,000	550,000
	Provide energy saving	Construct biogas	Biogas digesters constructed	40	14,000	14,000	14,000	14,000	14,000	70,000
	technologies for the rural			40	14,000	14,000	14,000	14,000	14,000	70,000
	dairy bulking and agro	Procure Solar unit for	Solar unit procured	40	96,000	96,000	96,000	96,000	96,000	480,000
	processing cottages	chilling milk		40	70,000	70,000	70,000	70,000	70,000	400,000
	Establishment of	Linking dairy processors								
	cottages and small scale	with dairy equipment	competitiveness strengthened	40	50,000	50,000	50,000	50,000	50,000	250,000
	processors into dairy	service providers			20,000	30,000	20,000	20,000	20,000	230,000
	processing									
		routine, impromptu and	compliance to the dairy							
		follow up inspections	regulations enhanced	3000	190,000	190,000	168,000	168,000	168,000	884,000
		of dairy premises and				ĺ	ĺ	ĺ	ĺ	ĺ
		consignments	1:4-414-:							
		Feedback meetings	compliance to the dairy regulations enhanced	40	48,000	48,000	48,000	48,000	48,000	240,000
	Support product	research and training	new dairy products introduced							
	diversification	on dairy product	on market	15	68,000	68,000	68,000	68,000	68,000	340,000
	ar versification	development	on market	13	00,000	00,000	00,000	00,000	00,000	370,000
	Enhance investment in	procuring of cooler/	dairy quality assurance systems							
	cold chain infrastructure	chillers	enhanced		0	0	0	0	0	0
		1								

	Strengthen market surveillance	carrying out dairy market surveillance	compliance to the dairy regulations enhanced	100	87,000	87,000	87,000	87,000	87,000	435,000
	Provide rewards and sanctions for	Quality sensitization and regional quality awards		5	180,000	180,000	180,000	180,000	180,000	900,000
	compliances Improve on transportation and safety of dairy products - CIP	establishing washing bay-stations for milk tankers /CANS	Dairy quality assurance systems enhanced	5	65,000	65,000	65,000	65,000	65,000	325,000
	Conduct routine enforcement exercises	enforcing dairy standards and regulations	regulations enhanced	75	97,000	97,000	97,000	97,000	60,000	448,000
	Participate in international trade expos and regular updates of international compliance of standards.	support staff to participate in international and local expos	strengthened participation in national and international expos	20	50,000	50,000	50,000	50,000	50,000	250,000
		Establishing a fully equipped Microbiology Laboratory and reequipping the physiochemical chemical laboratory	Quality assurance Systems enhanced	1	1,500,000	40,000	40,000	40,000	40,000	1,660,000
Increase domestic milk	Promote school milk consumption campaigns	sensitization on milk benefits and in schools	milk consumption adopted in schools	140	56,400	46,400	26,400	16,400	16,400	162,000
consumption;	dairy consumption campaigns	sensitization on milk benefits and in institutions	milk consumption sensitization promoted	140	56,400	46,400	26,400	16,400	16,400	162,000
	National milk consumption campaigns	organize regional and national June dairy months events	milk consumption sensitization promoted	5	130,000	130,000	130,000	135,000	150,000	675,000
		Media talk and TV shows	public sensitized on milk consumption	40	15,000	15,000	15,000	15,000	15,000	75,000
	Promote integration of dairy products in to other foods		increased dairy skills and technology research	5	127,000	98,000	80,000	80,000	80,000	465,000
		training on dairy product integration	capacity of stakeholders built	50	25,000	20,000	20,000	20,000	20,000	105,000
Total					6,797,853	7,379,377	5,783,593	5,754,231	5,999,433	31,714,487

Table 19: Five-year interventions and outputs for Mid-West region

Objective	Interventions	Outnuts	Towart			Anı	nual '000	YR 5 200,000 100,000 0 10,000 25,000 8,000 0 0 30,000 10,000 0 12,000 0 10,000 0 10,000 2,500	
Objective	Interventions	Outputs	Target	YR 1	YR 2	YR 3	YR 4	YR 5	Total cost
Increase milk production and	Procure and distribute improved in calf heifers to female headed households and youth groups	No of heifers procured	200	0	0	200,000	200,000	200,000	600,200
productivity	Cost sharing of the construction of zero grazing units for selected beneficiaries	No of Zero grazing units constructed	200	0	0	150,000	150,000		400,200
	Establish an A.I sub center at regional office	No of A.I sub center	1	0	0	0	0		1
	Procure 50 litre nitrogen tanks		8	0	20,000	20,000	10,000	10,000	60,008
	Procure and distribute A.I Kits for selected dairy farmer producer groups for improving breeds	No of A.I Kits procured	40	0	30,000	30,000	25,000	25,000	110,040
	procure and distribute sex semen for the selected dairy farmer groups	NO of semen straws procured	320	0	0	16,000	8,000	8,000	32,320
	Procure motorcycles for A. I technicians to support farm groups in breed improvement	No of motorcycles procured and distributed	40	0	0	100,000	100,000	0	200,040
	support training courses for selected A.I technicians attached to the farmer group	No of A.I technicians trained	40	0	0	25,000	25,000	0	50,040
	Promote milk production and productivity potential of goats, camels and sheep			0	0	0	0	0	0
	Procure improved dairy goats for establishment model demonstration goat dairy farms owned by female	No of dairy goats procured	30	0	0	30,000	15,000	0	45,030
	Train Dairy farmers in best animal husbandry practices and modern dairy farming technologies		2000	0	20,000	25,000	25,000	30,000	102,000
	Facilitate formation and strengthening of dairy farmer producer groups	No of farmer groups formed and strengthened	30	0	20	20,000	10,000	10,000	40,050
	Promote Sustainable feed management practices.			0	0	0	0	0	0
	Procure improved and distribute pasture seeds to selected farmer groups	No of Kg of pasture seeds procured & distributed	2000	12,000	12,000	12,000	12,000	12,000	62,000
	identify and support model farmers to establish demonstration gardens for pasture conservation and storage		30	0	20,000	20,000	20,000	0	60,030
	procure and distribute motorized chuff cutters to selected farmer groups and demonstration units	No of motorized chuff cutters procured	50	0	15,00	15,000	15,000	0	30,050
	procure and distribute hay balers	No of hay balers procured	100	0	0	0	10,000	10,000	20,100
	train model farmers in pasture establishment, conservation and management	No. of model farmers trained	25	0	0	0	10,000	2,500	12,525
	Facilitate farmer exchange visits to benchmark best dairy farming technologies within Uganda	No. of farmer visits organized	40	0	0	50,000	100,000	50,000	200,040

	procure appropriate processing equipment for dairy cottages	No. of processing units procured	1	0	0	0	300,000	0	300,001
marketing	Support for improved post-harvest milk handling	procured		0	0	0	0	0	0
	Procure food grade milk cans	No of milk cans procured	300	0	0	40,000	80,000	0	120,300
	Construct and equip mini dairy processing plant as benchmark center for value addition	No. of Min dairy constructed and equipped	1	0	0	300,000	0	0	300,001
	Skilling of Youth, men and Women in dairy value addition	No of dairy stakeholders trained in value addition	100	0	10,000	10,000	10,000	0	30,100
	Procurement and installation of milk coolers.	No of coolers procured and installed	1	0	0	0	300,000	0	300,001
	Enhance dairy inspections for quality standards along the value chain			0	0	0	0	0	0
quality assurance	Carry out routine, impromptu and audit inspections of milk handling premises and equipment's	No of premises inspected	1000	0	40,000	40,000	40,000	40,000	161,000
	carry out registration of dairy business after inspection	No of dairy businesses registered	500	0	3,000	3,000	3,000	3,000	12,500
	carry out market surveillance visits	No of market surveillance visits carried out	50	0	12,500	12,500	12,500	12,500	50,050
	Carry out on spot milk analysis	No of samples analyzed	500	0	10,000	10,000	10,000	10,000	40,500
	Procure milk and milk product samples during market surveillance	No of samples analyzed	500	0	2,000	2,000	2,000	2,000	8,500
	Conduct routine and enforcement exercises	No of enforcement exercises conducted	40	0	20,000	20,000	20,000	20,000	80,040
	Train dairy stakeholders in dairy regulations, standards, GMP's, quality control and quality assurance	No of stakeholders trained	200	0	20	20,000	10,000	10,000	40,220
	conduct stakeholder's platform meetings	No of platform meetings conducted	10	0	0	25,500	25,500	25,500	76,510
	Participate in international trade expos and regular updates of international compliance of standards.	No of international trade expos and international compliance of standards meeting attend	1	0	0	0	0	40,000	40,001
	Investments on Laboratory Infrastructure at regional levels			0	0	0	0	0	0
	Construct a regional mini laboratory and equip it	mini regional analytical lab constructed and equipped	1	0	0	0	150000	0	150,001

Increase domestic	Promote school milk consumption campaigns	No of school milk	10	0	0	0	40,000	0	40,010
milk consumption;		campaigns conducted	10	U	U	U	40,000	U	40,010
	promote milk consumption through partnership and	no of schools that have	2	0	0	0	2,000	0	2,002
	linkages between schools and milk producers	enrolled	4	O	U	O	2,000	O	2,002
	Hold televised and radio talk shows to promote milk	No. of televised shows	2	0	0	0	16,000	16,000	32,002
	consumption		2	U		V	10,000	10,000	32,002
Total				12,000	199,540	1,196,000	1,756,000	636,500	3,800,040

Table 20: Five-year interventions and outputs for Institutional strengthening

Objectives	Output	Intervention	Outputs	Cost in '000							
Objectives	Output	Intervention	Outputs	Year 1	Year 2	Year 3	Year 4	Year 5	Total		
Institutional strengthening of DDA	Management enhancement	Administrative function	DDA management functions handled	685,644	700,926	701,923	702,719	705,405	3,496,617		
		Upgrading EDTS	EDTS upgraded	1,256,080	1,444,492	1,661,166	1,910,341	2,196,892	8,468,971		
	National Dairy Laboratories	Laboratory systems development and maintenance	Accreditation maintained	312,500	233,500	238,500	312,500	238,500	1,335,500		
	(includes all DDA equipment a labs) Strengthenii administrati	Procurement Laboratory equipment and consumables	No of equipment bought	85,000	1,722,000	978,000	70,000	254,000	3,109,000		
		Strengthening Laboratories administration	Laboratories management handled	43,944	55,944,	43,944	43,944	46,944	178,776		
		Improving Dairy products quality monitoring and control	No of Dairy products tested	31,440	335,440	55,080	55,080	55,080	532,120		
			No. of studies done								
	Audit function supported	Risk management practices enhanced.	No. of inspections reports	16,630	27,855	33,285	36,000	38,715	152,485		
		Internal controls strengthened	No. of assurance reports	55,420	82,830	82,830	82,830	82,830	386,740		
	Human Resource management support	Pay staff salaries and related costs	No. of staff paid	2,201,487	2,311,561	2,427,139	2,548,496	2,575,921	12,064,604		
		Pay staff welfare	No. of staff supported	148,790	156,230	164,041	172,243	180,855	822,159		
		Monitor and supervise offices and capacity building	No. of supervision visits	41,448	43,520	45,696	47,981	50,380	229,025		

Internal Policy,	Coordinate internal Policy,	No. of progress reports	18,523	22,228	26,674	32,008	38,410	137,843
Planning, Budgeting		MPS	13,980	16,776	20,132	24,158	28,989	104,035
and M&E Functions	1	BFP	28,925	34,710	41,652	49,982	59,979	215,248
coordinated	Coordinate the strategic plan implementation to guide the Authority in determining investment priorities and resource allocation	Implantation plan coordinated	3,471	4,165	4,998	5,998	7,197	25,829
	Undertake research, data collection and analysis to provide strategic advice to DDA managers on informed actions	No. of research studies	-	3 98,250	417,417	441,441	442,469	1,301,327
	Monitor and evaluate implementation of policies, programmes and projects in the Authority	No. of monitoring reports	42,651	51,181	61,417	73,700	88,440	317,389
	dairy processing factory in Gulu and Soroti cities		200,000	220,0000				420,000
	Support dairy farmer registration countrywide	A database of dairy stakeholders	0	274,000				274,000
	Draft project proposals for different projects in DDA	No. of project proposals	22,981	27,577	33,093	39,711	47,653	171,015
Financial management service	Put in place internal financial control systems	Internal financial control systems in place	16,250	19,500	23,400	28,080	33,696	120,926
provided	Prepare and submit periodical financial reports	No of reports	11,268	13,522	16,226	19,471	23,365	83,852
	Coordinate and manage the payment process	Timely processing of payments	6,353	7,624	9,148	10,978	13,174	47,277
information and communication	Retooling DDA Offices	No of equipment's and facilities	72,699	87,239	104,686	125,624	150,749	540,997
management system managed and	Coordinate the maintenance and provision of ICT services	No of equipment's and facilities	6,892	8,271	9,925	11,910	14,291	51,289
maintained	Redesign and revamp DDA Website and Mail system	No. of website designed and maintained	-	6,000	7,200	8,640	10,368	32,208

	Procurement and Disposal processes of	1	No of procurements concluded	13,256	15,907	19,089	22,906	27,488	98,646
	goods, services and works managed	Develop and implement the Procurement and Disposal Plan for DDA	Procurement and Disposal Plan in place	4,658	5,590	6,708	8,049	9,659	34,664
		1 0	No of staff sensitized/ trained Procurement briefs	3,950	4,740	5,688	6,826	8,191	29,395
Total				5,144,240	7,383,384	7,239,057	6,891,616	7,429,640	34,087,937

4.0 FINANCING FRAMEWORK AND STRATEGY

This section indicates the funding requirements for implementing and executing the strategic interventions highlighted in the preceding chapters.

4.1 Costing of interventions and results

The overall cost of financing the plan over the 5-year period is UGX 125.3 billion of which UGX 12.164 billion is for wages. This implies that 76.4 percent of the total resources expected will finance non-wage recurrent and development activities. Development budget accounts for only 3.642 billion drawn from the project 1268 "Dairy Market Access and Value Addition". This costing follows the current budgeting approach. Detailed costs of interventions and outputs are provided in the section 3.3 above and summarised by cost centre on table 21 below. However, the current Medium Term Expenditure Framework (MTEF) in table 22 below from the MoFPED provides for 48.098 billion over the five-year period.

Table 21: Summary of planned investment costs by cost centre ("000")

Cost Centre	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Total
Head Office	5,144,240	7,383,384	7,239,057	6,891,616	7,429,640	34,087,937
Central	2,808,213	2,833,053	2,862,333	2,851,548	2,864,948	14,220,095
Eastern	209,686	1,441,386	1,614,386	1,942,449	1,443,449	6,651,356
Northern	302,725	2,664,629	3,284,596	2,913,817	3,041,064	12,206,831
North Eastern	262,205	4,414,475	6,014,475	6,114,475	6,164,475	22,707,900
Southwest	6,797,853	7,379,377	5,783,593	5,754,231	636500	31,714,487
Midwest	12000	199540	1196000	1756000	636500	3,800,040
Total	15,536,922	26,315,844	27,994,440	28,224,136	22,216,576	125,388,646

4.2 Summary of funding by source

The financing of the plan is expected to be drawn from the GoU funding over the five years. The table 22 below indicates the summary of GoU funding by source over the period of implementation. Funding is projected to increase by 15 percent annually for non-wage and development component. However, wages are projected to be stagnant in the next five years. The Authority is envisaged to lobby for the review of the financing of its budget so as to attain the plan's broader objectives and also achieve the aspirations of the Agro-Industrialisation programme.

Table 22: Summary of MTEF budget estimates for the strategic plan period

Funding Sources	BaselineFY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Total
Wage-Recurrent	1.57	1.57	1.57	1.57	1.57	1.57	7.85
Non-wage-Recurrent	4.919	4.919	5.903	7.084	8.5	10.2	36.606
Development	3.642	3.642	0	0	0	0	3.642
Total	10.131	10.131	7.473	8.654	10.07	11.77	48.098

Source: MTEF-BFP

The development component of the plan is envisaged to be financed from the project 1268 "Dairy Market Access and Value Addition". The project has been earmarked for exit from the Government Project Investment Portfolio for FY 2021/22. The Authority will seek for renewal of the project for the second phase and also seek for alternative funding sources for the development component for the Strategic Plan. Furthermore, the Authority will initiate a number of projects to cover funding gaps in the next five years meanwhile positioning itself for more funding during the roll out of the programme-based budget planning, financing and implementation frameworks in the medium term.

4.3 Resource mobilization strategy.

The Authority does not receive off-budget financing and also does not track off budget financing. Funding has therefore been generally low in the last five years. There is an estimated funding gap of 78.502 billion in the entire period of plan implementation. To cover the funding gaps the Authority will mobile resources from development partners and Government of Uganda through developing fundable projects. To boost investments in dairy value addition and strengthening the institution, the DDA will lobby the enhancement of wages and funding of its projects.

5.0 INSTITUTIONAL ARRANGEMENTS FOR IMPLEMENTING THE PLAN

Introduction

In order to effectively execute this plan, DDA will strive to address structural and institutional constraints identified in the situation analysis so as to enhance the delivery of its mandate and achieve its strategic objectives. The Authority will also seek wide stakeholder consultations and partnerships to promote innovation, industry cohesion and professionalism towards realization of the goal of this strategic plan.

5.1 Implementation model

The Authority shall implement this strategic plan using its existing structures while broadening the reporting responsibilities to operational level. This implies deepening reporting and accountability to lower operational level through the use of weekly timeline at each level of operation. It will also attempt to increase its presenece in operation areas to cover Karamoja, Kampala Metropolitan and West Nile. The Authority has adopted the following arrangements to guide the coordination and implementation of the Strategic Plan intra and inter-sector;

- i. Annual Budget Framework Papers comprising of detailed consolidated work plans of cost centres shall constitute the Authority's annual and medium-term plans.
- ii. All units and regional work plans consolidated under each directorate shall develop the five-year results matrix. This annualised results matrix will be updated annually based on continuous internal assessment of progress towards attaining the planned outputs listed in the strategic plan. These reviews shall also provide the basis for aligning DDA's annual activities with the overall resource envelop.
- iii. Quarterly and annual performance reports presented and discussed at management will ensure continuous assessment, learning and corrective actions for improvement. These will be submitted to the Board and other line ministries.
- iv. A framework for M&E has been developed to guide tracking progress of implementation of the strategic plan. The indicators to be tracked will be aligned to the broad programme indicators in consultation with OPM and the MoFPED.

5.2 Institutional setup of DDA.

The current institutional setup of DDA can be broadly categorized into two levels: - policy and technical management levels. At policy level, the Minister of State for Animal Industry heads the Authority through the board that is duly appointed by the minister. At the technical level, the Executive Director who is the chief executive and responsible officer, heads the Authority. He is assisted by the directors, managers (heads of unit) and other technical officers. The Authority is comprised of directorates of finance and administration, and directorate of technical services through which its activities are implemented. The Authority also has a Dairy Training Institution at Entebbe and the National Dairy Laboratory.

5.3 Roles and Responsibilities

For effective and efficient implementation of the plan, all departments within the institutional setup of the Authority should execute their vibrant and coherent roles and responsibilities as summarised below;

5.3.1 Finance and Administration

Finance and Administration is comprised of the following Units: Administration, Human Resource, Finance, Planning, Procurement, Information Technology, Internal Audit, Communications and Legal. It is directly mandated to:

- i. Provide strategic leadership and management of the Authority.
- ii. Formulate Ministerial Policy Statement, plans, budgets and monitor their implementation.
- iii. Manage the physical, financial and human resources of the Authority.

5.3.2 Technical Services

The department of Technical Services comprises of regional offices, Border posts and Laboratory services. They are directly responsible for;

- i. Dairy development activities
- ii. Dairy regulation and quality assurance.

5.3.3 Entebbe Dairy Training School

The national dairy training institution is fundamental in enhancing and sustaining the human resource capacity for the dairy industry. Over its course of revitalisation, the school has been playing the key role in the Authority of;

- i. Delivering training and skilling of stakeholders
- ii. Developing capacity of staff in dairy inspection and regulations

5.4 Implementation reforms

To ensure effectiveness and increase efficiency in the implementation of the plan, reforms over the five years are necessary. Three key changes in the operational and coordination framework have been identified.

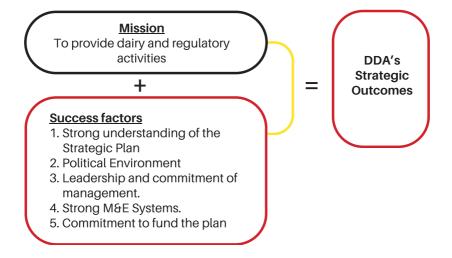
- a. From the SWOT analysis, internal constraints suppress the drive to deliver both the development and regulation function under one department. The authority will undertake the separation of the dairy development and regulation in to separate departments and streamline roles and responsibilities as one of its key reforms.
- b. Additionally, fusing the operations of the Dairy Training School under the implementation and financial frameworks of the Authority limits the effectiveness in implementation of the plan. It is therefore prudent and timely to separate operations of the school from the main institutional set up of the Authority. Restructuring and upgrading of the EDTS to a semi-autonomous skilling and incubation centre will be pursued during the course of implementation of the plan.
- c. Lastly, the country was divided in to milk production zones as well as operational regions so as to deliver effectively and take services closer to the public. However, concerns over the unique zonal contexts and operational constraints require strategic reforms. To spur regional balanced and equitable dairy development and regulation and in pursuit of boosting domestic consumption; new dairy production and operational regions in the

West Nile, Kampala metropolitan and Karamoja need to be gazetted within the DDA institutional structures.

5.5 Sustainability arrangements

Critical success factors that ensure sustainability and translation of this strategic plan into actions and results from departments have been taken into consideration. These factors ensure that departments deliver on their outputs and also provide the common points of reference to ensure competitive performance of the Authority as shown in figure 8 below.

Figure 8.0: success factors for delivering To increase productivity and competitiveness of the dairy sector and enhancing its contribution to population health and wealth of all Ugandans and vision



6.0 COMMUNICATION AND FEEDBACK STRATEGY

6.1 Rationale

Communication and feedback is an essential element in the implementation and monitoring and evaluation framework of this third strategic plan. Dairy stakeholders shall be adequately informed and mobilized to understand and comply with the objectives, targeted medium-term outcomes and the strategic direction pursued in the plan. Thus, facilitating the transmission of M&E findings and recommendations to relevant stakeholders. It is hoped that this strategy will lead to enhanced understanding, ownership and participation of the stakeholders and the general public in the implementation of the planned activities.

6.2 Communication and feedback channels

The dissemination of the strategic plan III will be through an official launch and copies of the plan shall be availed to specific government institutions, development partners, private sector and other dairy stakeholders. The plan shall also be uploaded on DDA's website. Other communication channels will be guided by the diverse target stakeholder needs.

Proposed communication channels are summarized in the table 23 below.

Table 23: Envisaged Communication Channels

Channel type	The reach	Type of message
Television	Can reach very large audience simultaneously in areas where power is available.	General information about dairy sub sector priorities and progress of implementation. This shall take form of talk shows, spot messages, documentary and sponsoring popular programmes to target a larger audience and targeted group interactive programmes.
Radio	Can reach very large audience simultaneously. Radio stations broadcasting in different languages are available in various locations in the country.	Primarily, general information about DDA goals and objectives; Information about completed and upcoming projects and impact of projects on the communities. All the above shall be translated in different languages.
Video and Digital Video Discs (DVDs)	broadcasting and public viewing on DDA website.	General information on dairy sub sector shall be developed and regularly updated to form part of DDA website to regularly track implementation progress. To be developed and published to demonstrate impact of interventions.
Electronic Media Platforms	Can reach larger audiences through website, socio-media platforms and SMS to promote mass awareness.	For information, news about implementation, reporting progress and publication of the completed projects.
Newspapers	For the literate population for news and general information.	For information and news especially for completed and ongoing projects. This can take the form of supplements, handbooks, magazines, taglines, pullouts, editorial in popular print media papers.
Posters and Pull- ups Leaflets, Fliers and Brochures	For the literate population for general information.	DDA priorities, educative information and for advertorial purposes. These normally carry short messages or graphics.
Inter personal communication	This provides framework for reaching large number of audiences through dialogues, meetings, and other organized fora.	Progress on completed and ongoing projects/programmes by DDA. It is important for providing general information/ knowledge to the public and other stakeholders.
Billboards, and murals	Can reach very large audience when placed in strategic places with high population footprints	DDA priorities, educative information and for advertorial purposes. These normally carry short messages or graphics.

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Feedback shall be obtained from all stakeholders involved in the delivery and respective beneficiaries of the planned outputs. Mechanisms for generating feedback assists the Authority to determine levels of progress in plan implementation and identify problems threatening the attainment of its outputs and outcomes. These are critical to plan success because its helps management collect information from all stakeholders including partners in regions providing platforms for adapting their respective plans. Also, these mechanisms promote accountability by providing a platform for stakeholders to identify (and respond to) information requests, suggestions and complaint as well as report sensitive issues related to protection, exploitation or fraud.

Mechanisms for receiving feedback during the period of strategic plan implementation include DDA telephone hotlines, suggestion boxes at head and regional offices, stakeholder engagement meetings, text messaging, website, post or email addresses.

7.0 RISK MANAGEMENT

7.1 Introduction

Dairy Development Authority acknowledges the need for risk informed development as a process not as an event throughout its plan implementation. This is because of the continuous interaction across local, regional and also institutional risks including; trade barriers, pandemics, war, terrorism, cybercrime, natural hazards and disasters, climate change among others. Knowledge of potential risks and mitigation measures facilitates the effective and consistent achievement of the planned outputs and outcomes during the period of implementation.

7.2 Risks experienced during previous plan

In the situation analysis, the Authority and the country at large experienced several risks that had devastating effects on the dairy subsector and also its performance. These included;

- i. Land acquisition delays for rehabilitation of MCCs. Land related disputes with encroachers have resulted into significant milk post-harvest losses. Also, the processes of securing its own land have encroached on the dairy development and regulation budget as funds are used to secure land titles.
- ii. Natural disasters like locusts, floods and drought which have cost the economy and impacted on farmer livelihoods. The locusts devastated pasture land in nearly half of the country which affected dairy production and productivity. Meanwhile, the impact of flooding, each year, in Uganda is estimated to be USD 62 million in GDP and impacting about 50,000 people. These have been documented along the shores of Lake Kyoga and Victoria where dairy farmers were forced to shift to upland areas. Also, between 2004 and 2013, droughts affected close to 2.4 million people and in 2010 caused an estimated loss and damage value of USD1.2 billion, equivalent to 7.5 percent of Uganda's 2010 gross domestic product (NDP III). Its effect on milk production and productivity is still significant especially in the Northern, North east and South western milk sheds.
- iii. Geo-politics and armed conflicts in the region have had significant impact on Uganda's economy. According to the NDP II report, the country experienced slow growth of 4.5 percent in 2016 partly due to the unrest in South Sudan resulting in the decline of exports by at least 72 percent, from USD25 million to USD7 million in the period from June to July 2016. In the dairy subsector, Rwanda and Kenya enforced non-tariff barriers on dairy exports costing the country more than USD 25 million of exports losses.
- iv. Lack of reliable data to measure performance of the dairy subsector and measurable planned outputs of the Authority for learning and accountability. Key subsector indicators and institutional performance indicators are based on estimates that sometimes are contradictory to available evidence. These cost the DDA and the subsector recognition and justified relevance during national resource allocation.
- v. Economic crimes especially corruption. Uganda's incidence rate of economic crimes remains high at 66 percent above the continental and global incidence rates at 62 percent and 49 percent respectively. In Uganda, 24% of persons that experienced economic crime suffered a direct loss of between USD 100,000 and USD 1M.

7.3 Main envisaged risks

Taking in to context the above, this plan has therefore identified, analyzed various potential risks and prescribed possible mitigation and management measures during implementation of this plan. The analysis of potential risks for this plan is based on the key causes, the likelihood of occurrence and magnitude of the impact on the realization of the Plan's results. Broad mitigation measures together with responsible actors are also identified and summarized on table 26 below.

DAIRY DEVELOPMENT AUTHORITY
Table 24: Analysis of envisaged risks during the plan implementation

Identified Risk	Risk category	sk category		Analysis		Mitigation	Lead Actor
		Causes	Likelihood	Impact	Risk rating		
Failure to allocate resources to the Strategic Plan priorities	Legal and Implementation	Prioritizing unplanned activities; Non alignment of budgets to the Plan; unnecessary budget cuts	High	Significant	High	Reduce unplanned expenditure of resources; Ensure alignment of plan to budget; Ring fence a proportion of funds for development budget	Management, Planning Unit
Natural disasters like floods, locusts Epidemics and drought	Farm and community	Destruction of biodiversity; Cultural practices of bush burning; Inadequate access to health care services; Weak community policing	High	Significant	High	Strengthen emergency response to disasters, increase disease prevention, strengthen community policing	MAAIF, DDA
Low prioritization of accurate and reliable data for planning and tracking progress	Legal and Implementation	Inadequate automation Inadequate resources to collect data; Lack of robust monitoring and evaluation systems	High	Significant	High	Develop and implement a Strategic Plan for Statistics; Set up a real time monitoring system	DDA Management, UBOS
Geo-politics and armed conflicts	Political Economic	Political Instabilities in the neighboring, Economic reforms Trade barriers	Low	Significant	Moderate	Engage in peace talks, strengthen border security and trade negotiations	MAAIF, DDA, UPDF,
Corruption	Economic	Illicit acquisition of wealth; weak enforcement of laws	Moderate	Moderate	Moderate	Implement anti-corruption programmes; Enhance transparency and strengthen internal audit systems.	Internal Audit, IG, OAG, ,CSOs Citizens
Macroeconomic policy shocks (domestic milk price fluctuations, exchange rate)	Economic, Farm level	Low economic activity / output growth; Supply shocks; Negative Trade balance	Low	Moderate	Low	Increase value addition on locally produced commodities, Increase bilateral trading partners	MoTIC, DDA MAAIF, MoFPED
Poor attitude to improved dairy farming practices		service delivery	Moderate	Moderate	Moderate	Develop high farming standards and increase demonstrations for proof	Local Governments, DDA, MAAIF
Land acquisition delays	Legal and Implementation	Slow justice system	High	Significant	High	Obtain land titles before planning a rehabilitation and constructing new MCCs	Ministry of Lands, DDA Management

8.0 MONITORING AND EVALUATION FRAMEWORK

DDA abides to the national policy on public sector Monitoring and Evaluation, 2013; put in place by OPM, to guide MDAs and LGs in conducting monitoring and evaluation of Government programmes and projects.

8.1 Monitoring and Evaluation arrangements

Actions, processes and provisions on how monitoring and evaluation function will be executed with in the Authority are summarized here in.

8.1.1 Budgeting for M &E function

Funds will be allocated and ring fenced for monitoring and evaluation activities. The M&E budget for non-wage recurrent plans will be informed by periodic releases during the annual and quarterly budget process. Cost drivers include generating and updating data collection protocols for non-project activities, transport and operational costs of data collection, running costs of MIS, validating and reporting monitoring data. The M&E budget for development projects will be guided by project documents as approved. All new projects shall allocate 15 percent of the project costs for the M&E function.

8.1.2 Monitoring and Evaluation Team

The M&E team will be at several levels i.e. policy, managerial and operational. At policy, the M&E function will be conducted by the minister of Animal Industry at MAAIF meanwhile at managerial and operation level, the Board, Management and Planning Unit. Staff at the Planning Unit will execute 90% of the monitoring function and will also provide M & E technical support to the Board and Management as a designated secretariat for the M&E function. Additional monitoring and evaluation personnel will be recruited in line with the approved organizational structure and national policy on monitoring and evaluation in public sector. This position holder will be responsible for coordinating monitoring and evaluation activities within the Authority and will be part of the Authority's planning unit team.

There will be continuous monitoring by the M&E team on the progress of the strategic plan against the set standards and performance indicators, with a view of advising the implementing teams on progress attained and deviation from planned outputs and targets.

8.1.3 Monitoring and Evaluation Scope Management

The M&E function of the Authority will be undertaken at two levels by different categories of personnel;

Category 1: The Minister, Board and Top Management

This category will conduct monitoring and evaluation at a higher level (policy & strategic). This will focus on ensuring that the Authority is delivering on its mandate and that the set targets are being achieved.

Category 2: Planning Unit Team

This category will conduct monitoring and evaluation at an operational level. Their role will focus on;

- a. Profiling and proposing key performance indicators to the Management
- b. Develop and implement a strong M&E system
- c. Maintaining the MIS system
- d. Conducting quarterly monitoring and evaluation activities.
- e. Periodic reporting on progress made among others.

8.1.4 Designing the Monitoring and Evaluation strategy

The M & E strategy will be formulated basing on the consolidated plan's performance indicators, location, period and methods of data collection. This strategy will have indicators from both recurrent and development plans and budgets. The strategy will include the M&E Plan and utility enhancement of M&E findings.

8.1.5 Management Information System (MIS)

The Authority intends to operationalize the National Food and Agricultural Statistical System to facilitate the capture, processing, analysis and use of monitoring data. Funds will be set aside for training of the users and acquiring equipment for data collection and management.

8.2 Progress reporting

The Authority through the planning unit will prepare and share quarterly monitoring and evaluation reports under the guidance of management. Bi-annual and annual performance monitoring reports will also be prepared and shared with OPM, MAAIF and MoFPED.

The reports will focus on performance against the approved work plans forming a basis for recommendations and corrective actions for improved service delivery. The A planning unit will work closely with the Directorate of Monitoring, Evaluation and Inspection of OPM and Budget Monitoring and Accountability Unit of MoFPED to ensure that M&E activities are executed.

8.3 Sector annual performance review

The Authority will participate in the Joint Agriculture Sector Annual Review (JASAR) meetings that are coordinated by MAAIF.

The key objectives of participation will be;-

- To assess the trends in overall sector performance based on SDGs, ASSP and NDP.
- Assess the progress of implementation of sector priorities as set out in Ministerial Policy Statement (MPS) and Budget Framework Paper (BFP).
- Review public sector financing
- Brief the stakeholders on the sector priorities for the subsequent financial year.

8.4 Mid-term and End-term evaluation

To ensure that the implementation of the strategic plan is on track, mid-term reviews will be organized to form basis for corrective action. End term evaluations will also be organized to assess the extent to which the mission, vision and the objectives of the strategic plan were achieved among others. The findings from the evaluations will guide the drafting of

the subsequent strategic plans and development of annual plans for the remaining period of plan implementation. For a successful execution of these evaluations, an evaluation plan will be prepared to explicitly describe the evaluations to be conducted, methodologies to be deployed, roles and responsibilities, work plan and budget, dissemination and a follow up strategy. The mid-term and end term evaluation will be conducted in the FYs 2022/23 and 2024/25 respectively.

8.5 Utilization of M&E Reports

The principal objective of conducting monitoring and evaluation is to facilitate evidence-based reporting for learning and accountability. The reports generated will be used for;

- 1. Accountability for the resources spent in the financial years.
- 2. Review interventions, strategic actions and improve on performance.
- 3. Draw lessons for improved service delivery.
- 4. Reference/ information accessibility by key stakeholders like parliament, investors and the general public.

8.6 Plan theory of change

Figure 9: Theory of Change

Inputs

Staff(Planners, Dairy Inspectors, Dairy Development Officers, Regional managers) Logistics and equipment (Motor vehicles, Lab equipments, farm inputs) Financial resources

Activities

- Inspections, enforcement and market surveillance Registration of dairy businesses
 - Building capacities of dairy stakeholders along the dairy value chain
- · Rehabilitation of milk
- · collection centers
- · Analysis of milk and milk product samples
- · Construction of college facilities
- · Procure and distribute critical farm inputs eg milk cans pasture seeds,chaff cutters etc

Outputs

- · Dairy stakeholders trained.
- · Dairy businesses registered
- Dairy businesses inspectedMilk collection centres
- rehabilitated.

 Milk and milk product samples analysed
- samples analysed.

 Market surveillences
- conducted
 Upgraded to a college

Outcomes

- · Increased milk production and productivity
- Improved milk marketing and consumption
- · Reduced post harvest losses
- · Strengthened dairy
- standards and regulations
- Better quality and safety of milk and dairy products
- Professionalized dairy stakeholders

Impact

· Improved household income, nutrition and livelihood of Ugandans

8.7 Results frameworks

8.7.1 Results framework: goal level

Goal	Indicators Baseline		Targets				
Goar	Indicators	FY2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Enhance dairy value addition and quality for increased	Volume of milk processed (percent)	33	40	45	48	52	55
market competitiveness.	Export value of dairy products (Billion UGX)	281.1	368.7	430.7	543.9	678.9	781.1

8.7.2 Results framework: outcome level

Outcome	Indicators	Baseline	Targets				
Outcome		FY2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Increased Milk production	Milk production (Billion litres)	2.50	2.70	2.92	3.15	3.40	3.67
and productivity	Percentage change in yield of dairy commodities	0.07	0.08	0.09	0.10	0.12	0.14
Reduced post-harvest losses and enhanced milk	Milk post-harvest losses (Percent)	0.27	0.24	0.19	0.16	0.12	0.10
processing and marketing	Storage capacity (MT)	1938	1,963	1,988	2,013	2,038	2,063
	Share of dairy exports to total livestock exports (percent)	40	42	45	48	52	55
	Value of dairy imports (USD million)	5.19	3.30	2.97	2.67	2.41	2.17
Improved safety of dairy	%age of small holder farmers producing for the market	0.00	0.01	0.05	0.15	0.20	0.25
products and sustained	%age of milk marketed	0.33	0.38	0.40	0.45	0.48	0.50
market competitiveness	Percentage change in livestock households that have adopted commercialized dairy farming	0.00	0.01	0.05	0.15	0.20	0.25
	%change in the rejection of dairy products due to poor quality and safety	0.20	0.40	0.80	0.70	0.70	0.50
Increased domestic milk consumption and marketing	Per Capita Domestic Milk Consumption	62.3	67.6	72.8	78.1	83.3	88.6
Strengthened dairy institutions	Level of satisfaction with service delivery in dairy- industry (%)	20	43	58	63	71	75

8.7.2 Results framework: output level

Outcome	Indicators	Baseline	Targets				
		FY2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
	No. of farmers trained in improved dairy farming practices	4,441	5,125	8,216	8,873	9,583	10,350
	National Dairy Laboratory Accredited (% of progress)	0.07	0.08	0.09	0.10	0.12	0.14
	No of women and youth's farmer cooperative societies/farmer groups under the	0	50	50	50	50	50
Increased Milk production	parish model supported with dairy farm equipment	U	30	50	30	30	30
and productivity	No. of chuff cutters procured and distributed	22.00	25.00	30.00	35.00	40.00	40.00
	No of dairy farmer groups under the parish model supported with pasture seeds	0	50	50	50	50	50
	No. of Hectares under improved dairy pastures	315	658	790	948	1,137	1,364
	Kgs of Pasture seeds procured and distributed	12,998	15,598	18,717	22,461	26,953	32,343
	No. of MCCs rehabilitated	2	4	4	4	4	4
	No. of MCCs constructed	0	3	3	3	3	3
	No. of dairy farmers trained in post-harvest handling	1,280	1,305	1,330	1,355	1,380	1,405
	No of dairy farmer groups under the parish model supported with milk handling and	0	150	150	150	150	150
Reduced post-harvest	cooling equipment	U	150	130	150	150	150
losses and enhanced milk	No. of feasibility studies for establishment of dairy factories in Gulu and Soroti cities	0	0	1	1	0	0
processing and marketing	No. of dairy factories rehabilitated	0	0	0	1	0	0
	No of dairy farmer groups under the parish model supported with small scale milk	0	50	50	50	50	50
	value addition equipment	0	30	30	30	30	30
	No. of dairy stakeholder skilled in value addition and quality control	413	496	595	714	856	1028
	No. of milk handling equipment (milking cans, milking buckets and milking machines) procured and distributed	411	1,059	1,059	1,059	1,059	1,059
	No. of dairy businesses registered	281	369	431	544	679	781
	No. of milk samples analyzed	5,015	42	200	250	300	350
Improved safety of dairy	No. of enforcement activities carried out	5,015	3	50	45	41	37
products and sustained	No. of market surveillance activities	27	54	54	55	55	60
market competitiveness	No. of international market expo attended	21	1	1	1	1	1
market competitiveness	No. of dairy premises inspected	3,246	4,058	5,072	6,340	7,925	9,906
	Proportion of regional laboratories equipped	0.20	0.20	0.40	0.60	0.80	1.00
Increased domestic	No. of schools with school milk programmes	0.20	5	10	15	20	25
milk consumption and	No. of national milk consumption awareness campaigns conducted	0	1	10	2	2	4
	No. of milk promotional events held	0	1	1	1	1	1
Strengthened dairy	No. of DDA staff recruited	0	10	15	15	10	5
institutions	No. of new dairy farmer groups formed under the parish model	0	0	30	35	40	55
	No. of accredited dairy courses	0	0	1	2	2	1
	No. of college facilities constructed	0	0	2	3	4	2
industry	No. of college staff recruited	0	2	5	5	5	5
·	10. Of College Staff Accidited	U		3	5	3	3

9.0 PROJECT PROFILES

This section summarizes the projects being implemented by Authority.

9.1 Project 1268 "Dairy Market Access and Value Addition" 9.1.1 Project background

Dairy Market Access and Value addition is a project addressing Value addition and Market access challenges through Dairy Development Authority. It is entirely funded by Government of Uganda. It started receiving funding in the FY 2013/14 with initial investment of UGX 1 billion. It is currently receiving UGX 3.64 billion (FY 2019/20).

This project was conceived to address the following challenges: -

- 1. The high post-harvest losses in milk and dairy products due to lack of cold chain infrastructure. Some farmers still pour milk as a result of lack of bulking centers/cold chain infrastructure. This cold chain improves milk collection, value addition and marketing.
- 2. Lack of a National Dairy Accredited Laboratory that would enable Uganda acquire National and International acceptance of test results and therefore facilitate both domestic and foreign trade. In absence of an Accredited Laboratory, the test results of the products can be rejected and traders asked to take them to an Accredited Laboratory. The laboratory needs to be accredited and a number of dairy parameters accredited.
- 3. Inadequate skilled and employable man power in milk quality and value addition skills among the public. The sub- sector still lacks trained manpower in the field of milk quality and value addition e.g. Yoghurt processing, Cheese making, Ice Cream processing. There are also practices that still promote unhygienic milk production and handling leading to poor quality of milk produced in Uganda.
- 4. Low dairy activities and services among the stakeholders in the rural countryside. Dairy activities are still very low in other parts of the country like Karamoja, East and Northern Uganda. The activities can be scaled up through establishment of Regional offices and border posts that will facilitate trade through entry and exit. The absence of the Regional Offices in all regions has crippled the Authority's service delivery.
- 5. Low milk production and productivity due to poor animal husbandry practices, poor breeds that produce an average of 4 litres of milk. This needs to be improved to 10 litres per cow per day.

9.1.2 Technical Description

The project focuses on rehabilitating MCCs, Accrediting the national laboratory and revamping the Entebbe Dairy Training School. Rehabilitated milk collection centers will improve milk collection, bulking and marketing which eventually contribute to the reduction in post-harvest losses. Rural dairy farmers, cooperatives and traders are supposed to benefit from this as it offers an opportunity of milk bulking and marketing.

An accredited National Dairy Analytical Laboratory will carry out milk and milk product sample analysis for quality monitoring purposes and also make sure that dairy products meet regional and international standards. This accreditation would be done through training in laboratory systems, proficiency testing, internal auditing of the system, calibration of equipment and application of the test methods. An international accreditation body must be appointed to offer this service for the start. The laboratory must be equipped appropriately, to offer conformity assessment tests so as to comply with certification and standardization of milk and milk products.

A revamped Entebbe dairy training school will skill dairy stake holders in value addition, quality control and assurance. This offers an opportunity to the youth who are the main target. The skills acquired would make them get employed and start cottage industries which reduces the bulk of milk sold unprocessed (66%) through value addition.

Opening of Regional Offices will enable DDA to take services closer to the dairy farmers and other stakeholders and this which would stimulate production and productivity countrywide.

9.1.3 Objective

The overall objective of the project is to promote dairy value addition and rural milk collection by enhancing the infrastructure and improving the quality of milk and milk products produced in Uganda.

9.1.4 Linkage to NDP III and Agro-Industrialization PIAP

This project directly contributes to Agro –Industrialization Programme interventions that are specified in the National Development Plan III. The objective 1 "increasing production and productivity of agro-enterprises", calls for strengthening agricultural research and technology development. This involves investing in new and rehabilitating old infrastructure for agriculture such as training centers. The up scaling of skills and competencies of agriculture labor force at technical and managerial levels will require strengthening of training and skilling centers for new skills in agro industry and also strengthening the capacity of technical institutions for training agricultural mechanics and technicians. Agriculture Sector Strategic Plan (ASSP II) prioritizes improving access to agricultural markets and value addition and this will involve rehabilitating the existing and developing new milk cold chain and processing infrastructure and strengthening milk quality assurance system.

9.1.5 Project Activities

- i. Reviving the Entebbe Dairy Training School to upscale skilling in value addition
- ii. Rehabilitation of milk collection centers to improve milk marketing.
- iii. Strengthening the National Dairy Laboratory through Accreditation.
- iv. Establishing and supporting Regional Offices to effectively implement the DDA National Mandate.

9.1.6 Expected Outputs

- i. A rehabilitated, equipped and functioning Entebbe Dairy Training School.
- ii. Regional Offices opened.
- iii. Rehabilitated and functioning rural milk collection centers rehabilitated and functioning.
- iv. An accredited National Dairy Analytical Laboratory.

9.1.7 Expected Outcomes

- i. Reduced post-harvest losses and increased house hold incomes.
- ii. Enhanced consumer safety of milk and milk products.
- iii. Increased local, regional and international acceptance of our country's dairy products.
- iv. Increased agro processing capacity/dairy value addition

9.1.8 Project Funding History

Out of the approved budget of UGX 10.948 billion (FY 2015/16- FY2019/20), the project has only received 9.199 (84%) of the approved budget. The partial releases in the Financial Years have curtailed the implementation of the key planned activities. The project is to be exited and a new phase is being prepared with a wider scope, goal and outcomes. The Authority has therefore, carried forward the implementation of those activities in this new strategic plan (FY 2020/21- 2020/25).

Table 25: Project 1268 funding history

Financial year	Approved Budget(UGX bns)	Released by End June 2020 (UGX bns)	% of the Budget Released
FY2015/16	1.000	0.825	83%
FY2016/17	2.134	2.134	100%
FY2017/18	2.130	2.130	100%
FY2018/19	2.042	1.887	92%
FY2019/20	3.642	2.223	61%
Grand Total	10.948	9.199	84%

Source; Budget performance reports; FY 2015/16 – FY 2019/20

9.2 Agriculture Value Chain Development Project9.2.1 Background

Agriculture Value Chain Development (AVCP) is a five year project that started in the FY 2019/20 and being jointly implemented by the Uganda National Bureau of Standards (UNBS)/Ministry of Trade, Industry and Cooperatives (MTIC); Uganda Seed Trade Association (USTA), Farmer Cooperatives and Associations; National Agricultural Research Organization (NARO); Dairy Development Authority (DDA); the National Animal Genetic Resources Centre and Data Bank (NAGRIC&DB); the Private Sector Foundation of Uganda (PSFU) and its related agribusiness associations and Ministry of Agriculture, Animal Industry and Fisheries (MAAIF); that is the overall coordinator of the project. There is a National Project Coordination Unit (NPCU) that is housed in MAAIF as a lead Agency.

9.2.2 AVCP Technical Description

The overall cost of the project is UA64.41 million. African Development Bank will provide UA57 million and Government of Uganda will contribute UA7.41 million. The project mainly focusing on the value chains of Maize, Rice, Dairy and Beef, as key strategic commodities. The phase one of the project started in the FY 2018/19 and is expected to end in the FY 2023/24

Project Purpose:

To improve farm incomes, rural livelihoods, food security and contribute to poverty reduction through irrigated agriculture, sustainable natural resources management and agricultural enterprise development.

Project development goal:

The overall goal of the Project is to contribute to poverty reduction and economic growth in Uganda through enhanced productivity and commercialization of agriculture.

Specific Project objective:

The project objective is to improve household incomes, food security, and climate resilience through commercial agricultural practices, sustainable natural resources management and agricultural enterprise development.

Project Strategic Pillars;

- i. Infrastructure development for value addition and industrialization, and
- ii. Skills and Capacity Development for poverty reduction.

Project Components:

The project comprises of three (3) operational and one (1) management components:-

Component 1: Production and Productivity Enhancement; that is being implemented by NARO, NAGRC&DB and Uganda Seed Traders Association.

Component 2: Infrastructure Development; that will be implemented by MAAIF and is focusing on Gravity fed Irrigation schemes in Sironko, Bukedea and Bulambuli, Solar fed irrigation schemes in Amolatar, Gulu, Oyam and Pader.

Component 3: Market Development and Trade Facilitation; that is focusing on post-harvest facilities, improving food safety and quality management systems in dairy and milk products.

Component 4: Project Management and Coordination; that is basically dealing with operation and general project management.

9.2.3 Dairy Component in AVCP

The Authority's activities under AVCP have been highlighted under Component 3: Market Development and Trade Facilitation. This component has been subdivided into three (3) sub components;-

- 1. Support the harmonization of conformity assessment protocols, streamline certification processes and improve DDA laboratory for international accreditation
- 2. Support to DDA to improve Food Safety and Quality Management Systems in milk and dairy sector.
- 3. Support to Project Management

9.2.4 Dairy Activities and Budget in AVCP

Each subcomponent has specific activities being conducted. The activities to be directly implemented by the Authority will cost approximately USD 198,184. Key dairy related procurements will directly be managed by National Project Coordination Unit (NPCU), in line with implementation modalities that have been outlined in the consolidated project document.

Table 26: AVCP Dairy activities by sub component

Component	Sub-component	Activity description	Cost in USD
Market	Support the harmonization of	Proficiency Testing and coordination of	21,000
Development and	conformity assessment protocols,	labs workshops/meetings	
Trade Facilitation	streamline certification processes	Harmonization of lab protocols and	23,616
	and improve DDA laboratory for	documents	
	international accreditation	Towards ISO 17025 accreditation: (ISO	25,050
		17025-2017)Consultant/expert	
	Support to DDA to improve Food	Development of training manuals and	5,180
	Safety and Quality Management	protocols for TOT's/b	
	Systems in milk and dairy sector	ToT events on food safety for Milk	10,003
		Collection Centre (MCC)	
		Review the existing regulations	15,200
		On-site training of staff for inspection and	7,500
		testing activities	
	Support to Project Management	Operating costs	90,635
Grand Total			198,184

9.2.5 DDA subsector project outputs

- i. The National Dairy Analytical Laboratory Accredited.
- ii. Training manuals for dairy stakeholders developed
- iii. Dairy regulations reviewed
- iv. Two rural milk collection centres rehabilitated
- v. Authority's regulatory staff capacity enhanced

9.2.6 Dairy subsector project outcomes

- i. Reduced post-harvest losses and increased house hold incomes.
- ii. Enhanced consumer safety of milk and milk products.
- iii. Increased local, regional and international acceptance of our country's dairy products.



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