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# LIST OF ACRONYMS AND ABBREVIATIONS

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ACF</td>
<td>Agriculture Credit Facility</td>
</tr>
<tr>
<td>ARVs</td>
<td>Anti-retroviral</td>
</tr>
<tr>
<td>BTVET</td>
<td>Business Technical Vocational Education and Training</td>
</tr>
<tr>
<td>COMESA</td>
<td>Common Market for East and Southern Africa</td>
</tr>
<tr>
<td>DSIP</td>
<td>Development Strategy and Investment Plan</td>
</tr>
<tr>
<td>EAC</td>
<td>East African Community</td>
</tr>
<tr>
<td>EAGC</td>
<td>East Africa Grain Council</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GOU</td>
<td>Government of Uganda</td>
</tr>
<tr>
<td>GIMS</td>
<td>Grain Information Management System</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
</tr>
<tr>
<td>MAAIF</td>
<td>Ministry of Agriculture, Animal Industry and Fisheries</td>
</tr>
<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MEMD</td>
<td>Ministry of Energy and Mineral Development</td>
</tr>
<tr>
<td>MEACA</td>
<td>Ministry of East African Community Affairs</td>
</tr>
<tr>
<td>MFPED</td>
<td>Ministry Finance, Planning and Economic Development</td>
</tr>
<tr>
<td>MICT</td>
<td>Ministry of Information and Communication Technology</td>
</tr>
<tr>
<td>MLHUD</td>
<td>Ministry of Lands, Housing and Urban Development</td>
</tr>
<tr>
<td>MOESTS</td>
<td>Ministry of Education, Science, Technology and Sports</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MOLG</td>
<td>Ministry of Local Government</td>
</tr>
<tr>
<td>MT</td>
<td>Metric Tonne</td>
</tr>
<tr>
<td>MWE</td>
<td>Ministry of Water and Environment</td>
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<tr>
<td>MSMEs</td>
<td>Micro, Small and Medium Enterprises</td>
</tr>
<tr>
<td>NAADS</td>
<td>National Agricultural and Advisory Services</td>
</tr>
<tr>
<td>NAP</td>
<td>National Agriculture Policy</td>
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<tr>
<td>NCF</td>
<td>National Coordination Forum</td>
</tr>
<tr>
<td>NDP</td>
<td>National Development Plan</td>
</tr>
<tr>
<td>PEAP</td>
<td>Poverty Eradication Action Plan</td>
</tr>
<tr>
<td>PMA</td>
<td>Plan for Modernization of Agriculture</td>
</tr>
<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>ROM</td>
<td>Results Oriented Management</td>
</tr>
<tr>
<td>SNV</td>
<td>Netherlands Development Organisation</td>
</tr>
<tr>
<td>TGCU</td>
<td>The Grain Council of Uganda</td>
</tr>
<tr>
<td>UBOS</td>
<td>Uganda Bureau of Statistics</td>
</tr>
<tr>
<td>UNCE</td>
<td>Uganda National Commodity Exchange</td>
</tr>
<tr>
<td>UEPB</td>
<td>Uganda Export Promotion Board</td>
</tr>
<tr>
<td>UGTA</td>
<td>Uganda Grain Traders Association</td>
</tr>
<tr>
<td>UIRI</td>
<td>Uganda Industrial Research Institute</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>United Nations AIDS Programme</td>
</tr>
<tr>
<td>UNBS</td>
<td>Uganda National Bureau of Standards</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>WFP</td>
<td>World Food Programme</td>
</tr>
<tr>
<td>WRS</td>
<td>Uganda Warehouse Receipt System Authority</td>
</tr>
</tbody>
</table>
Grains are important commodities of socio-economic and political importance in the country and in the world. With the fast growing population, urbanization and advancements in the industrialization process, the demand for grain as food for consumption, ingredients for manufacturing animal feeds and other industrial products is increasing. There are many key stakeholders in the comprehensive grain value chain. Grain trade and agro-processing plays a critical role in the national economy but the sector faces a number of challenges, including inadequate supply due to low production and productivity, volatility of agricultural commodity prices, inadequate storage facilities and minimum value addition. There is urgent need for policies and strategies to increase production and productivity; address post-harvest management challenges and promote value addition to ensure competitive supply of quality grain and grain products.

The National Grain Trade Policy, therefore, focuses on interventions aimed at improving the supply of quality grain through adoption of post-harvest handling best practices, and use of modern storage and value addition facilities. It outlines the vision, mission and strategic objectives to be pursued during the implementation process. It highlights strategic policy actions that will transform the grain sector to ensure sustainable and accelerated growth in grain production, quality storage, value addition and trade volumes.

The National Grain Trade Policy is in line with Uganda’s Vision 2040 and the National Development Plan II in respect of provision of food security, improving income generation and advancement of industrialization. Its implementation will be multi-sectoral; including public private partnership arrangements.
I, therefore, urge the stakeholders in the grain sub-sector to embrace and support this Policy because its effective implementation is critical for the development of the national economy.

Amelia Kyambadde (MP)
MINISTER OF TRADE AND INDUSTRY COOPERATIVES
2 VISION AND OBJECTIVES

2.1 Introduction

Uganda is predominantly an agricultural economy well-endowed with natural resources, fertile soils, and a favourable climate. Most Ugandans, especially in rural areas (68 percent), depend on agriculture for both livelihood and income generation. The country’s major agricultural commodities include coffee, tea, cassava, maize, beans, ground nuts, rice, and bananas. Coffee and tea are traditional cash crops grown mainly for export, while maize, beans, ground nuts, and rice are the primary agricultural commodities traded locally and within the EAC and COMESA region. Uganda has a comparative advantage in the region for grain production and is considered to be the food basket of the region capable of creating wealth for the country. Almost every household grows some grain in addition to other crops or livestock management, and more than 2.5 million households derive their income and employment from the grain sub-sector in Uganda.

The grain sub-sector occupies a strategic position in ensuring the country’s food security alongside other crops such as bananas, cassava, and sweet potatoes. This sub-sector provides producers, produce buyers, transporters, processors, and exporters with income from business transactions undertaken along the value chain. Grains are also the most important source of raw materials for livestock feeds. Grains are therefore important crops for both food security and income-generation and thus directly affect women in agriculture in addition to men.

However, this huge potential has not been realized in part because the country lacks a specific and clear policy that can address constraints related to inadequate infrastructure facilities, and agri-business technical, financial and management capacity along the grain value chain. Limited access to key inputs and other resources by women is also constraining production and incomes. Grain processors and traders cannot meet the
demand for grain products because much of what farmers supply is sub-standard due to poor post-harvest handling practices. The shortage of standardized storage facilities, unreliable electric power supply and high costs, as well as high interest rate financing among other issues, all pose serious challenges to the sub-sector. Such circumstances drive up the operating costs and compress profit margins for all stakeholders involved in the grain value chain. The importance of food security, trade, and income generation was emphasized by the declaration of the November 2009 EAC Treaty for the EAC Common Market and the Abuja Summit of December 2010. Food security has also been stated as an important Millennium Development Goal (MDG).

In past development programs, such as the Poverty Eradication and Action Plan (PEAP) of 1997 and 2004, the Plan for the Modernization of Agriculture (PMA), and MAAIF’s Development Strategic Investment Plan (DSIP) and the recent National Agricultural Policy (NAP), strategic initiatives to increase production and productivity of primary commodities have been implemented. The Uganda Vision 2040, the Second National Development Plan 2015/16 – 2019/20 (NDP II), the National Trade Policy (2008), the National Industrial Policy (2008), and the National Industrial Sector Strategic Plan all focus on increased and diversified production, value addition, and marketing, among other strategic interventions, which will transform the country into a modern, vibrant, and prosperous industrialized country.

As a liberalized economy, the key players in the grain sub-sector have organized themselves into an association called the Uganda Grain Traders Association (UGTA), and have constructed some storage and processing facilities (12 percent of total output) as well as traded in large volumes with some organizations like the World Food Program (WFP). Currently, the national standardized storage facilities for maize can only cater for 550,000 MT out of 3.2 million MT (MAAIF 2014 Projections) of total production. Due to the inadequate capacity of storage facilities and poor post-harvest handling practices, Uganda has experienced an increased
loss of the competitive grain market from large customers such as the WFP. Most grain is now traded as second grade across the borders.

The Government of Uganda (GOU) considers the grain sub-sector to be a strategic area in the socio-economic transformation of the country owing to the fact that grains are grown countrywide and create opportunities for Ugandans through the entire value chain, from the supply of quality inputs for farming up to the final product in the market (grains, flour, and value-added products). This value chain also encourages women to play a significant role in the production of grains.

Therefore, formulation of this policy is in line with the national, regional, and international development agendas focused on unlocking the full potential of the grain farmers, processors, and will thus promote the competitiveness of the sector and growth of the economy.

2.2 Vision
The vision of the National Grain Trade Policy is to have a globally competitive grain sub-sector for food security, income generation, and industrialization.

2.3 Mission
The Mission of the Policy is to ensure consistent quantity and quality supply of grain and grain products to the market in order to improve incomes of the sub-sector actors through efficient post-harvest handling, value addition, and effective regulation.

2.4 Strategic Objectives
The following are the Strategic Objectives that shall be pursued in this regard, and these define the principle focus areas of intervention:

1. To improve the institutional, policy, and regulatory frameworks to enhance the competitiveness of the grain sub-sector.
2. To promote value addition and innovation.

3. To promote research, product development and technology transfer.

4. To promote the development, harmonization, and enforcement of standards.

5. To promote the bulk handling and marketing of grains by farmers and traders through improved storage facilities and enhanced market infrastructure.

6. To enhance skilled human capacity development including women and youth
   To improve access to affordable credit

2.5 Basic target indicators

1. Increased exports of grain value added products by 25 percent

2. Effective institutional framework including functional market infrastructure.

3. Improved standard grain storage facilities from 5 percent to 40 percent.

4. Reduced post harvest losses from 37 percent to 25 percent.

5. Increased access to agro-processing facilities (cleaning, drying, and grading) from 12 percent to 50 percent

2.6 Consultative Process

A consultative process was implemented that involved task force meetings and a stakeholder consultative workshop which attracted a
variety of public and private sector players, including policy makers from government ministries and agencies including the Ministry of Agriculture, Animal Industries, and Fisheries; Ministry of Finance, Planning and Economic Development; Ministry Water and Environment; the Uganda National Bureau of Standards; Uganda Industrial Research Institute; National Planning Authority; and the Uganda Export Promotion Board. The private sector stakeholders included the Private Sector Foundation of Uganda; the Uganda Manufacturers Association; the Uganda Small Scale Industries Association; the Uganda Federation of Farmers; The Grain Council of Uganda; the East African Grain Council; and civil society representatives and researchers. Finally, the process involved consultations with international aid and development agencies including the United States Agency for International Development, the WFP, and Food and Agriculture Organization.
3 SITUATION ANALYSIS

3.1 Strengths

The grain sub-sector is considered to be one of the most strategic areas for the country’s socio-economic transformation through the creation of opportunities for Ugandans throughout the value chain. There are key strengths that Uganda can take advantage of to boost the national economy.

3.1.1 Progressive Increase in Grain Production

Over the past years, Uganda has seen a progressive increase in the production of major grains, and this increase requires guided investments in standard storage and marketing infrastructure and processing facilities. The table below illustrates Uganda’s grain production trends since 2008.

<table>
<thead>
<tr>
<th>Product</th>
<th>Production Output (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
</tr>
<tr>
<td>Maize</td>
<td>2,315</td>
</tr>
<tr>
<td>Beans</td>
<td>912</td>
</tr>
<tr>
<td>Wheat</td>
<td>19</td>
</tr>
<tr>
<td>Sunflower</td>
<td>0</td>
</tr>
<tr>
<td>Groundnuts</td>
<td>230</td>
</tr>
<tr>
<td>Millet</td>
<td>275</td>
</tr>
<tr>
<td>Sorghum</td>
<td>342</td>
</tr>
<tr>
<td>Rice</td>
<td>178</td>
</tr>
<tr>
<td>Sisim</td>
<td>99</td>
</tr>
<tr>
<td>Soya Beans</td>
<td>22</td>
</tr>
<tr>
<td>Peas</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>4,426</td>
</tr>
</tbody>
</table>

3.1.2 Progressive Increase in Grain Trade

Since 2008, there has been a progressive increase in Uganda’s grain trade in part due to the high rate of population growth that needs food security and expanding markets at both local and regional levels. This therefore
calls for a holistic favourable policy environment that ensures grains with higher value are available on the market. The table below illustrates the trend in grain exports since 2008.

### Formal Grain Export by Volume (Tone), 2008-2012

<table>
<thead>
<tr>
<th>Commodity</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize</td>
<td>66,671</td>
<td>94,990</td>
<td>166,251</td>
<td>89,246</td>
<td>174,776</td>
</tr>
<tr>
<td>Rice</td>
<td>25,426</td>
<td>38,289</td>
<td>33,323</td>
<td>38,254</td>
<td>69,914</td>
</tr>
<tr>
<td>Beans and other legumes</td>
<td>37,252</td>
<td>38,191</td>
<td>24,427</td>
<td>35,920</td>
<td>30,357</td>
</tr>
<tr>
<td>Sesame Seeds</td>
<td>14,154</td>
<td>12,107</td>
<td>12,065</td>
<td>14,841</td>
<td>11,503</td>
</tr>
<tr>
<td>Soya beans</td>
<td>3,250</td>
<td><strong>2,630</strong></td>
<td>918</td>
<td>1,579</td>
<td>2,613</td>
</tr>
<tr>
<td>Ground-nuts</td>
<td>81</td>
<td><strong>163</strong></td>
<td>88</td>
<td>299</td>
<td>2,810</td>
</tr>
</tbody>
</table>

3.1.3 **Strong Institutional Framework for Standards Development, Harmonization, and Enforcement**

While there are some existing organizations and institutions to develop and promote the use of grain standards such as Uganda National Bureau of Standards, National Agricultural Research Organization, The Grain Council of Uganda (TGCU) at national level and East African Grain Council (EAGC), Common Markets for Eastern and Southern Africa (COMESA), East African Community (EAC) at regional levels, there are some gaps in the guiding policies, quality standards and marketing regulations that need to be harmonized. With recognized expanding markets, there is a need for production and marketing of quality grain with higher value.

3.1.4 **Favourable Climate**

Uganda has potential within the region for sustained food supply at affordable competitive prices because of natural fertile soils, land for commercialization in some districts, and two annual production seasons.

3.1.5 **Macroeconomic Stability**

The Government is committed to restoring and maintaining macroeconomic stability to provide the basis for boosting public investment and economic
growth. The existence of various policy frameworks and programs that are directly or indirectly linked to the grain-sub sector are all aimed at increasing production, processing, food security and access to markets which are key determinants for both household welfare and macroeconomic stability.

### 3.1.6 Existence of Policy and Strategy Complementarities

The existence of complementary government policies and strategies like the National Development Plan I and II, the Agricultural Sector Development Strategy and Investment Plan for the Ministry of Agriculture, the National Industrial Policy, the National Cooperatives Development Policy, support a conducive political and economic environment.

### 3.1.7 Strong Base for Public Private Partnerships

Growing synergies among actors and the existence of private sector associations/actors such as the Private Sector Foundation Uganda, the Uganda Manufacturers Association, the Grain Council Uganda (TGCU), and the Uganda Commodity Exchange and Cooperatives, help link the government and the private sector. Such cooperation can build a regulatory framework that promotes public private partnerships (PPP), and identify market opportunities and innovative mechanisms for value addition along the grain sub-sector.

### 3.2 Constraints and Challenges

Grain trade faces various challenges from the farm level to the market level. Key challenges are described below.

#### 3.2.1 Inadequate Policy, Regulatory and Institutional Framework

There is no policy that comprehensively addresses issues of trade and infrastructure development in the grain sub-sector. Many existing laws, like the Produce Protection Act of 1913, are outdated. Other more current policies and strategies that concern production, agro-processing, and marketing, such as the
National Agricultural Policy (2013), National Industrial Policy (2008), National Trade Policy (2008), National Agricultural Advisory Services (NAADS) Programme of 2001, have weak coordination and implementation structures among multiple stakeholders, resulting in duplication of efforts and wasted resources. There is need for a specific enabling policy concerning the grain sub-sector for linking production, processing, and marketing. The institutional framework to support and enable market access can be developed along the lines of Warehouse Receipt System Authority and The Uganda National Commodity Exchange where regulated and organized marketing would take place.

3.2.2 **Limited Agro-processing and Value Addition Facilities**

Products from smallholder farmers are usually sold as raw materials rather than processed products and are mainly dependent on sun drying. There is lack of the technology to add value at source and drying facilities are limited hence limiting the farmer’s profitability.

Enhanced production and increased processing of the grains will boost household incomes, food security, and livelihoods for most rural areas. It will encourage and increase value addition in the food sector and contribute to national GDP.

Regarding adding value, the installed capacity (drying, cleaning, grading, and agro-processing) stands at 12 percent, and 88 percent of grain is transacted as raw grain. The sector faces the challenge of acquiring food grade processing machinery and other basic implements that can assist handlers and processors to ease their operations. Obsolete technologies contribute to poor quality products and higher production costs, while modern technology improves the production efficiency that results in lower production costs and high quality products. Ultimately, availability of spare parts and maintenance operations influence machinery capacity utilization and efficiency. To obtain machinery and spares requires some ample finance, which is lacking for most value chain players.

The challenge of finance can be addressed by appropriate long-term financing for grain processing infrastructure, development, and machinery acquisition including machinery appropriate for women.
As a result of the above grain sub-sector challenges, the growth in production capacity and export by volume of major grain products has been at a minimal level.

### 3.2.3 Inadequate infrastructure

Development of the grain sub-sector has been hampered by poor storage infrastructure like road networks, power and irrigation systems. Access to and the cost of power to run grain processing equipment has been a challenge especially in the rural communities that produce grains. Poor rural infrastructure, especially feeder roads, have affected the grain trading mainly during the rainy seasons. Despite the construction of good highways and main roads, and some feeder roads in the rural areas, there are still many impassable feeder roads during the rainy seasons which limit accessibility, thus increasing the cost of doing business and negatively impacting the competitiveness of grain trade. Some potential businesses suffer from poor or inadequate access to power supply around their locations. Installation of electricity supply facilities in areas where the national grid does not reach is usually the most expensive for new business establishments. There are high costs associated with insufficient electricity supply which ultimately leads to more costs that causes illegal connections and use of motorised or diesel engines that increases the cost of doing business and affects the quality of value added products.

### 3.2.4 Limited Crop Financing

Limited access to finance and affordable credit is a major concern in the grain sub-sector. Despite the rising number of commercial banks, it is clear that there is still a lack of affordable credit (most banks currently charge between 18-22 percent on commercial loans). This leaves out many emerging entrepreneurs who require financial support for grain production investments. Due to limited personal savings and lack of access to collateral to access bank loans, many farmers and processes have difficulties in accessing bank loans, and rely on loans from family and friends or informal credit sources. This is particularly the case for smallholder farmers including women who do not own fixed assets
including land. Targeted incentives should be given to farmers, agribusiness enterprises, private individuals and MSMEs including women and youth participating in the grain value chain. However, this does not mean that banks should issue loans without corresponding collateral or security. Mobilising organized cooperatives (including those led by women and/or youth) and use of WRS are highly encouraged. Micro-finance institutions, too, can play a key role, but their lending rates can be very high.

3.2.5 Inadequate Collective Bulk and Standard Storage Facilities

In Uganda, post-harvest losses range between 26 - 37 percent of the total harvests (UBOS 2013), mainly due to poor handling methods (at harvesting, inadequate drying cleaning, and grading methods), inappropriate storage methods, and the low storage capacity on farm and at distribution levels in the country. There are very few standardised warehouses for both grain and processed products; and their management is also inefficient to some extent. For the maize grains, Uganda has standardized storage facilities for only 550,000MT out of 3.2 Million MT of total production (MAAIF 2014 Projections). Therefore, there is need to enhance both pre-harvest and post-harvest handling and management of grains.

Most of the small-scale farmers, including women, market their products individually, and this has denied them the advantage of cluster/group marketing or marketing cooperatives (such as bulking for small producers, better prices, group branding, etc.). The limited number of collection and bulking centres has also contributed to farmers’ inability to bargain for better prices and improved quality of grains along the grain sub-sector.

3.2.6 Weak Market Linkages and Unreliable Market Information Systems

Production of grain is mainly done by small-holder farmers including women who are largely based in rural areas with limited access to market information about grain markets and prices. Lack of adequate information on markets (demand, prices, off takers, transport services) militates against smallholder farmers and traders and affects commercialization opportunities. Women,
because of the other family commitments and mobility-related constraints, have even less access to this needed information. Due to lack of a formal trading system that provides a platform for the interaction of buyers and sellers, as well as few collective market outlets (as producer cooperatives), individual farmers attract few customers and are subjected to volatile prices that do not motivate improved productivity and investment in quality practices.

3.2.7 Limited Awareness and Enforcement of the Grain Standards

Standards for most grains have been developed and harmonized under the EAC standards framework. However, there is little awareness about them and they are generally not in use. Traders are therefore not making purchases based on grades and standards, which demotivated traders and processors to promote quality grains. There is need to promote the use of standards and grading mechanisms for better quality grain for higher prices and to use outreach tools that reach all sub-sector actors.

3.2.8 Potential for High Infestation of Grains with Aflatoxins

Aflatoxins are metabolic products of food spoilage fungi that induce toxic responses when consumed by humans and animals. Maize, groundnuts, and sorghum are the most contaminated foods with aflatoxins in Africa, but aflatoxins also occur in other grain crops. Aflatoxins are highly toxic to humans, livestock, and poultry. The growth of aflatoxins emanates from the infestation and growth of the fungi mould in grain which is favoured by high temperatures and high humidity as well as poor handling methods. One of the key determinants of aflatoxin accumulation in maize, peanuts, and other crops is moisture content.

About 75 percent of the grains in Uganda are contaminated by aflatoxins with an average concentration level of 21 µg/kg. It is expected to be much higher in groundnut. This further explains why poultry feeds are more susceptible to antitoxin contamination since grains are raw materials for making animal and poultry feeds. They render both health and economic risks to human beings and over 4.5 billion people globally are exposed to health hazards caused by
aflatoxins (Kaaya A.N., Kyamuhangire W: The effect of storage time and agro ecological zone on mould incidence and aflatoxin contamination of maize from traders in Uganda).

Over 25 percent of the global food supply is contaminated with aflatoxins, and they have led to 64 percent reduction in food quality in Africa, causing diseases and death for animals. Human consumption of foods contaminated with aflatoxins can lead to Hepatocarsinogen, immune-suppression, liver diseases, liver cancer, and kwashiorkor and stunted growth in children. It is currently estimated that Africa loses $450 million annually due to trade in products contaminated with aflatoxins. Strong, consistent, and enforced standards result in improved economic benefits in the long term because they support larger and more stable markets for aflatoxin-free products, which incentivise aflatoxin control technologies and reduce the negative health impacts.

There is critical need to develop practical and cost-effective methods of pre- and post-harvest handling systems, as well as standardized storage and appropriate transport facilities to reduce grains infestation by aflatoxins to an acceptable levels.

3.2.9 Shortage and High Cost of Inputs

Inputs availability, affordability, and quality have become a huge challenge for farmers. Improved inputs (mainly seeds, pesticides, and fertilisers) are often not available in most parts of rural Uganda where farmers are based. Women have disproportionately lower access to key inputs due to their limited role in decision making and limited control over income generation, and this has constrained production. Agro-dealers are largely located in urban centres that are isolated and far removed from the farmlands. Even these few agro-dealers are observed to handle rather small stock consignments that do not meet the farmer’s requirements. The limited use of modern production techniques – improved inputs and technology, results in low yields and high production costs.

The unit prices for most of these inputs are considered expensive by the farmers. This is compounded by the high transport costs that are incurred in distribution
and delivery of these inputs to the rural areas. The quality of these inputs leaves a lot to be desired. Accordingly, MAAIF estimates that 25-40 percent of the inputs on the market are either fake or adulterated. This further discourages farmers from investing in these yield enhancing technologies.

3.3 Inadequate Technically Skilled Human Resource

Technically skilled manpower is required for the sub-sector in order to increase on the value addition. There is an acknowledged dearth of technical skills of workers at in milling and grain storage facilities, which causes inefficient operations and low productivity at the processing level. There is a need for intensive programmes of training and human resource development for efficient operations and enhanced productivity of machinery. This calls for short- and medium-term training of artisans and technicians relevant for the sub sector.

3.3.1 High Level of Informal Grain Trade in the Country and the Region

Uganda is the largest informal supplier of grains to the region, contributing to more than 70 percent of regional consumption, and it is recognized that informal grain trade between Uganda and its neighbours is around five times higher than that of the formal grain trade. This therefore demonstrates the dominance of informal trade in the region and the need to formalize it. Grain processors who have invested in quality grain handling have not realised realistic returns on investment due to informal operations. Proper grain handling infrastructure ensures competitiveness in terms of price and quality.

The revitalisation of the Uganda National Commodity Exchange and the establishment of the Warehouse Receipt System Authority are aimed at enhancing grain quality, improving transparency in commodity trading, enhancing commodity pricing, and bringing out the advantages of structured financing to the grain sub sector.
3.4 **Opportunities**

Uganda grain production has the potential and capacity to satisfy the local grains requirements as well as the regional markets. It can greatly contribute to both local and regional food security. The potential opportunities of the sector are due to the following:

3.4.1 **National, Regional, and Global Markets**

The national market for grains and their by-products is growing, especially for maize, rice, and beans. The main demand is from the institutional buyers such as schools, police, prisons, hospitals, the army, and WFP. The major demand for grains and their by-products is in the urban areas, because of the growing urban population, where for most average income household’s posho and beans have become a daily dish. Maize is consumed by almost all households in urban centres at varying degrees. At the regional level, within the EAC and other neighbours, the market is available and growing. Kenya alone has demand more than 800,000 MT of maize per annum since 2009 and there is also increasing demand for grains in South Sudan, DR Congo, and Rwanda. Uganda can export to the other regions outside of the EAC such the COMESA region to which it is part of the COMESA customs union. This market needs to be developed.

3.4.2 **Emerging Small and Medium Commercial Farmers**

Due to rising food prices generally and within the region, many Ugandans, especially youth, have ventured into small- and medium-, scale farming. There has been an increase in the number of grains producer institutions like Uganda Prisons, Uganda Police, Cooperative unions and other civil society institutions like churches that have ventured into large scale grain farming.
3.4.3 Government’s Priority to Promote Value Addition

Through implementation of various value-addition initiatives and revitalization of the Uganda Development Cooperation, the Government is promoting value addition to agricultural products and these efforts are being supplemented by the private sector players. However, a lot needs to be done in establishing and promoting value-addition facilities countrywide.

3.4.4 Government’s Priority on Infrastructure Developing

The Government’s priority on developing infrastructure for power and transport is crucial, not only for national development but also for expanding regional processing facilities and access to both national and regional markets.

3.5 Threats

Growth of the grain sub-sector in Uganda is hampered by a number of threats, including:
1. Limited market access.
2. Low cost competitors in other developed and developing countries.
3. Subsidized grain production.
4. Effects of climate change and weather shocks:

    The climate change threats include change in seasons which have not only affected agriculture production, but also the weather patterns. These patterns have in turn manifested themselves in unpredictable floods and droughts that affect the poor. The above climate changes have affected people’s productivity and also contributed to increased drought and floods which in turn have contributed to increased food insecurity.
4 GUIDING PRINCIPLES AND POLICY ACTIONS

4.1 Guiding Principles:

This Policy shall be guided by the following principles derived from experiences and practices in the grain sub-sector.

i. **Enhancing policy, regulatory, and institutional frameworks for a more favourable environment for the grains sub-sector:** The Government, in collaboration with private sector actors, will ensure that it develops and promotes grain post production policy objectives in line with the National Development Plan (NDP).

ii. **Promoting dialogue and transparency among all key stakeholders:** The implementation of the Policy shall be done in effective consultation and cooperation with all key stakeholders, including women and youth, and with players along the entire grain value chain in a transparent and non-discriminatory manner.

iii. **Building partnerships with a broad spectrum of actors:** The Government shall promote and sustain strong partnerships, specifically PPPs, and with development partners, to effectively develop and enhance the production, storage, processing, and marketing infrastructure for grains.

iv. **Coordinating harmonization, review, and dissemination of Standards:** The Government will coordinate the development and periodic review of Standards, and promote harmonization and dissemination of EAC standards with national standards in order to promote quality in the grain sub-sector.

v. **Promoting institutional collaboration:** The Government will promote policy synergies between this Policy and other relevant policies.
vi. Promoting regional trade and complementaries within the framework of regional economic communities such as EAC and COMESA

4.2 Policy Actions

This section presents the key priority areas of action envisaged under each strategic objective.

4.2.1 Improving Policy, Regulatory, and Institutional Framework

It is essential to establish an effective policy, regulatory, and institutional framework for coordination and collaboration among the key players in the grain sub-sector, including producers, storage facilities operators, processors, transporters, and distributors. For the Government to optimally utilize synergies among the agencies and related institutions, the following interventions will be undertaken:

i. Strengthen the UNBS for effective development, harmonization, and enforcement of Standards.

ii. Establish a National Coordination Forum (NCF) for discussing performance of the sub-sector.

iii. Establish a mechanism for timely dissemination of information on the grain sub-sector.

iv. Coordinate with the lower local governments on making by laws to ensure quality grains at the farmer and trader levels.

v. Government coordinating with the private sector to promote quality grains for local consumption and exports.

vi. Operational the WRS Authority as an institutional framework for the grains WRS where warehouse operators will be regulated and accredited.
4.2.2 Promoting Value Addition

Value addition, packaging, and branding activities should be promoted to strengthen the producers’, traders’, and processors’ knowledge about product quality, processing, and quality control requirements.

To achieve this above objective, the following interventions shall be undertaken:

a) Provide incentives to support establishment and revitalization of grains processing facilities.

b) Promote food processing and fortification for enriched products targeting the existing different market segments.

c) Enhance capacity building in value addition, quality control, and processing best practices through the grains value chain.

4.2.3 Establishing Strategic Food Storage Facilities

There is insufficient standardized grain storage capacity across the country to cater for a range of seasonal products. The existing bulk storage facilities suffer from high cost of energy and poor management practices. This objective is aimed at harnessing the resources of the public and private sectors to increase infrastructure to handle grains. The activities to achieve this goal include construction of conventional cribs in rural areas at the farm level and standardized bulk storage facilities (warehouses and silos). Consistent demand for quality and sufficient quantities has become more important in grain trade. With improved storage facilities and proper management, as well as energy infrastructure, commitment can be made to the quality of the final products.
To achieve the above objective, the following priority interventions shall be undertaken:

a) Revisit and sensitize farmers, including women and youth, on the role and importance of traditional /conventional storage cribs.

b) Promote innovative post-harvest management and processing technologies, and undertake management training for producers, traders, processors, transporters, and storage facilities operators. Consider production or post-production labour-saving technology that is appropriate for women, in terms of size and weight, technical requirements, and training needs.

c) Identify and certify additional storage facilities as bulking enters in strategic areas in the country.

d) Establish an inventory system for storage facilities and laboratories.

e) Promote low-cost appropriate cribs which are easy to build, use and maintain for farmers and traders in rural areas including women.

f) Link the value chain actors to financial institutions and other possible sources of credit for construction of standard storage facilities.

g) Support establishment of standard warehouses and silos for food security reserves through a PPP arrangements.

h) Engage relevant Ministries and other stakeholders to support the construction of transport networks and to distribute power to productive areas
4.2.4 Promoting Research & Product Development, Technology Transfer, and Innovation

Research and product development, technology transfer, and innovation activities should be promoted to improve and strengthen the key players along the grains value chain on technology and product quality requirements. The area of research and product development along the grain value chain in Uganda is still in its infancy stage and it is characterized by a number of challenges that include limited funding for research, product development, and infrastructure development. As a result of the above challenges, there are a limited number of institutions that are promoting research and business incubation services along the grain value chain. Over the past two decades the government has attracted investors into this sector but the biggest percentage of grain is still being exported in raw form without value addition and this has reduced income generation for stakeholders along the grain value chain. It has also inhibited the grain product diversification process.

To achieve this above objective, the following interventions shall be undertaken:

a) Provide incentives to support establishment of technology transfer and business development services.

b) Strengthen institutions that provide research and product development services.

c) Promote access to business incubation services, including for women and youth, by facilitating establishment of linkages between institutions and the key players along the grain value chain.

d) Establish a research and product development fund for researchers and innovators along the grain value chain.

e) Increase access to post-harvest handling, trade extension, and advisory services through local governments and commercial officers, ensuring that advisory services are delivered fairly to all relevant actors.
f) Link cooperatives/firms, including those led by women and / or youth, to key institutions such as UIRI, UNBS, UEPB, and academia for research and innovation, standardization, and marketing; among others.

g) Promote forward and backward linkages along the grains value chain.

4.2.5 Promoting Bulk Handling and Marketing of Grains

Bulk handling and marketing improves efficiency and quality in storage, processing, packaging, labelling, advertising, and transportation and labour costs to farmers and traders. It also increases information access opportunities for the markets, prices, required quality and quantity. Traders can often find the quantities of the product they want. The strategic interventions shall include:

a) Encourage bulk handling and marketing by mobilizing a network of organized farmers/producer groups, associations, clusters or cooperatives and processors and including those which have representation or leadership by women and youth.

b) Promote establishment of firm level collection facilities (cribs), group level storage facilities (warehouses and silos) and revitalize the Uganda Commodity Exchange (UCE).

c) Provide an enabling environment for strengthening the WRS for grading, standardization and quality control of grains.

d) Establish monitoring and evaluation programs in warehouses and other storage facilities, as well as processing facilities.

e) Mobilize and train farmer groups, traders, processors, and transporters on good bulk grain handling practices using training methods appropriate for all targeted actors.

f) Disseminate information regarding grading systems and quality features of grain and in ways which address the time, mobility and literacy constraints facing women farmers.

4.2.6 Enhancing Skilled Human Capacity Development
Inadequacy of qualified personnel is one of the major constraints to the rapid expansion to agribusiness in Uganda especially with agro-processing. The Government’s “Skilling Uganda” program is aiming at addressing this problem. In line with the BITVET strategic plan, technical colleges and vocational institutions will be strengthened to create employable skills and competencies relevant in the labour market.

a) Promote innovative post-harvest management and processing technologies and management training for producers, traders, processors, transporters, and storage facilities operators, including for women and youth.

b) Strengthen the existing business management institutions to enhance business incubation, entrepreneurship and innovation

c) Coordinate collaborative arrangements between the private sector, academia, and technical institutions to develop relevant technical skills for the grain sub-sector

d) Promote participatory involvement of the grain sub-sector stakeholders, including women and youth, in the process of developing relevant human capacity development programs

4.2.7  Enhancing Access to Information on Markets and Storage Facilities

Reliable information is crucial for farmers in production planning and marketing, and for storage facilities’ operators, processors and other market participants in making optimal trading decisions. The more accurate, detailed, and timely the information, the easier it is to develop appropriate market plans and decisions. The existence and dissemination of complete and accurate marketing information is the key to achieving both operational and pricing efficiency in the marketing system.
A marketing information system backed by strong and adequate infrastructure is at the core of agricultural marketing. Market infrastructure is important not only for the performance of various marketing functions and expansion of the size of the market but also for transfer of appropriate price signals leading to improved marketing efficiency.

The Government aims at having a fully functional Warehouse Receipt System (WRS), Commodity Exchange (CE), and more coordinated clusters of grain private sector players. The key priority area for this strategic objective is promotion of access to timely and reliable information to all stakeholders.

To realize this objective, the following interventions shall be undertaken:

a. Create awareness and training, including for women and youth, on the use and benefits of WRS and Commodity Exchange.

b. Promote business fairs or trade shows to link chain actors, including women and youth.

c. Establish traceability systems along the grains value chain.

d. Scale up access to information through the use of ICT applications across the grain value chain with emphasis on mobile phones as a mechanism to reach women actors.

e. Establish and enhance district business information centres and communication networks for reliable information, including via channels that effectively reach women or youth producers and other chain actors.

f. Develop a Grain Information Management System (GIMS) web portal to provide linkages to various web sites in order to access all information.

g. Conduct research aligned to the sub sector requirements.

h. Strengthen information flow to harness synergies amongst government, private sector and other stakeholders.
4.2.8 Improving Access to Crop Financing

Limited access to affordable financing for agri-business development for the grain sub-sector is another priority area that requires improvements. There is a need to strengthen the WRS in the country for several benefits, such as increased liquidity in rural areas, lower costs of financing, shorter and more efficient supply chains, and enhanced rewards for grading and quality grains. Improved access to finance will result in higher returns to farmers, better service to consumers (involving lower prices, better quality and greater variety), and macro-economic benefits through a more healthy trade balance in agricultural commodities. The aim of this objective is to greatly expand the availability of warehousing services while making warehouse receipts a prime tool of trade and trade financing throughout the country. It promotes bulk storage systems. Bulk systems allow a more efficient handling within the processing plant, and more effective pest control. It will also enable the banks to improve the quality of their lending portfolio to the agricultural sector.

To achieve this objective, the following interventions have been prioritized:

a) Promote and strengthen grain value chain actors for bulking, value addition, and marketing of grains.

b) Promote the available low cost financing options for agribusiness-related credit with emphasis on options which de-emphasize ownership of fixed assets as criteria for beneficiaries.

c) Encourage the use of commercial and subsidized credit for value chain stakeholders with particular focus on low income women and youth.

d) Promote the use of the WRS as a source of credit.

e) Promote business networking including for women and youth.
4.2.9 Cross Cutting Issues

In line with the Guiding Principles, the Policy is aimed at addressing existing and emerging cross-cutting issues in the grain trade sub-sector. These include, but are not limited to, the following:

a) Promoting gender equity participation and empowerment: Gender main-streaming needs to be strengthened and more support is highly required in this area to enhance value addition and increase job creation especially for women and youth.

b) HIV /AIDs: Diseases, particularly HIV/AIDS, have had devastating impact on the grain sub sector. It directly affects production as it robs farmers of labour, and weakens agro-processing and trade. In collaboration with other policies such as Food and Nutrition Policy, all the value chain actors including people with HIV/AIDs will be encouraged to participate in the sector to ensure that quality food and nutritional requirements are maintained at healthy levels.

c) Climate change: Climate change increases risk of drought and high temperatures which affect seasonal production output in terms of quality and the volumes harvested per acre.

d) Improved governance and accountability: Requiring capacity building through training for better management within the public and private institutions, enterprises and associations of the private actors and ensuring an effective M &E system to improve planning, implementation and monitoring, evaluation and developing action plans to improve performance in the sector.

e) Cleaner production and environmental management: Ensuring that all value chain actors have been sensitized about the benefits of cleaner production and friendly technologies for sound environmental management. Promoting efficient use of resources and best practices within the sector shall be highly considered during the implementation process.
5 IMPLEMENTATION AND MONITORING MECHANISM OF THE POLICY

To derive the benefits of synergy resulting from the implementation of different activities, various components will be implemented in a holistic manner and through the PPP arrangements. A strong and sustained commitment from both policy makers and private sector including private sector associations will be essential for realization of the strategic policy objective. Development and operationalization of the Results based monitoring (ROM) and evaluation system shall be done in a participatory manner.

The overall coordination of the policy implementation shall be done by the lead ministry, MTIC in collaboration with and other relevant government ministries that include MAAIF, MoFPED, MoLG, MGLSD. MoESTS, MICT, MEMD, MWE, MoH, and MEACA.

An implementation strategic plan following the approval of the policy will be developed. The Ministry shall also collaborate with other institutions and agencies, academia, civil society organizations and private sector organizations on the implementation of the strategy. The overall process of monitoring the implementation of the policy shall be based on a set of performance indicators developed in a participatory manner and coordinated by the Policy Unit in the Ministry of Trade, Industry and Cooperatives through a consultative process that will involve all the key stakeholders in the grain sub-sector.
6 CONCLUSION

The Grain trade policy aims at promoting agro-processing and value addition, information sharing and marketing, storage and post-harvest handling services. Existing markets not only require consistent quantities but also quality grains. Adhering to grain standards will keep traders and processors competitive in the available markets. This will in turn help farmers improve grain production efficiency, trading in large quality grain volumes and improved storage and food security.

The Government, therefore encourages forging of meaningful partnerships across public, private, community based organizations and development partners’ institutions in implementation of the Policy.