



# FELITAI mixed Demonstration Farm Limited Business plan

*Farming for a better future*

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## Vision, Mission and Core Values

### VISION

Our farm vision is '***an agricultural enterprise that champions sustainability and technology, producing quality food and products for our customers, sustainably harnessing the land's resources to meet the demands of the current and future generations.***'

Our farm will be a continuous learning environment, providing on-site training and open dialogue to stay ahead of the curve and market trends. We will strive to operate with efficiency and transparency, becoming the gold standard for trustworthy and responsible agricultural production and marketing.

### MISSION

We believe that our primary responsibility is ***“to produce healthy, superior quality, and affordable food to the growing population. We aim at achieving this through establishing and operationalizing a modern profit oriented model farm engaged in diversified crop and livestock production, utilizing modern and mechanized farming methods including livestock feeding and breeding methods.”***

We are also committed to making a strong contribution to an improved environment through using climate smart approaches; and giving back to our community.

### CORE VALUES

- **Respect** - We value all relationships and treat each one with respect.
- **Quality, Safe, Secure Products** - We strive to provide the highest quality and safe products to our customers.
- **Safe Working Environment** - It's our first priority
- **Integrity** - We do the right thing
- **Excellence** – It's our passion
- **Teamwork** - We work together, never apart

- **Environmentally Friendly/Sustainability** - We believe that by taking care of the environment and reducing our ecological footprint, we will all prosper. We employ sustainable farming practices and work towards doing more with less, reducing waste, and being innovative in product creation.
- **Community empowerment** - We care about our people & our environment
- **Profitability**- We farm as a business

**THE FELITAI FARMS LEADERSHIP TEAM IS COMMITTED TO:**

**EMPLOYEES:** We recognize that our employees are an integral part of the FELITAI Farms Team and are our most important resource. We are committed to providing our employees with leadership based on honesty and integrity and treating them with fairness, respect and dignity. We vow to provide them with an enjoyable, safe, and rewarding work environment.

**CUSTOMERS:** We recognize our customers are essential to our success, and we are committed to listening to them in order to continuously improve our processes to provide quality products and services that exceed their expectations.

**QUALITY:** Quality is FELITAI Farms' number one goal. We are committed to embracing and employing total quality in every aspect of our business - in our employees, our operations, and our processes, to provide top quality breeds and products to our customers.

**FOOD SAFETY & SECURITY:** We are committed to supplying the marketplace with products that are safe for consumption by our customers. We are committed to doing our part to ensure the security of our products from the farm to the market.

**COMMUNITY:** We recognize that the community in which we live and work - Parish, sub-county, District, Busoga Region and Uganda - is critical to our success, and we are committed to being good neighbours by providing access to high quality breeds, Knowledge, Market, Mechanisation, and services in any way possible.

## Executive summary

### Project proposal

FELITAI mixed Demonstration Farm Limited is looking to embark on **an Intensive feedlot system for beef and zero grazing for Dairy and improvement project** with the overall objective of improving the operating capacity and increase in milk and beef yield. We aim to grow the farm's current annual sales of 30 to 40 head of cattle to annual sales of 400 to 500 head of cattle for the beef sector and daily milk production to about 12,000 litres from about 60 litres per day. We believe we can achieve this by implementing the following capacity building initiatives:

- 1. Increase cattle stock levels (re-stocking) and improve productivity rates:** We intend to increase cattle breeding stock from the current herd size of just over 80 head of cattle to 810 head of cattle. We also intend to introduce an artificial insemination programme to improve the current productivity rates from 40% to 95% by using a mix of Artificial Insemination (AI) and Natural Servicing (NS).
- 2. Increase grazeable land acreage:** We intend to improve grazeable land acreage from the current 58% of farm land to 95% of ranch land through an extensive bush clearing and weeding programme and rotational grazing system for pasture management and establish more pasture lands for zero grazing.
- 3. Increase water capacity and improve water distribution:** We intend to increase water capacity from the current estimates of 100,000 litres to 18 million litres and improve water distribution from a current coverage of 200 acres to 1,000 acres.
- 4. Improve basic employee working conditions:** We intend to improve employee living and working conditions by constructing housing for employees working directly at the beef sector and dairy sector.
- 5. Improve on access management:** We intend to improve farm access management by installing a permanent perimeter fence, opening up of dairy and beef sector access roads and putting in place an access control system.

This project is estimated to cost approximately **Ushs. 3 billion** over a three (4) year execution period.

### Brief on applicant – FELITAI mixed demonstration farm ltd and the Okurut family

FELITAI mixed Demonstration Farm Limited is a Christian led family business involved in livestock. The company was established by the Okurut Family with the objective of commercialising their beef and dairy farming activities. The Okurut family has been in the cattle industry for over 5 years. FELITAI mixed Demonstration Farm Limited aims to provide a sustainable and quality supply of grass-fed cattle for organic beef and dairy.

### Director profiles:

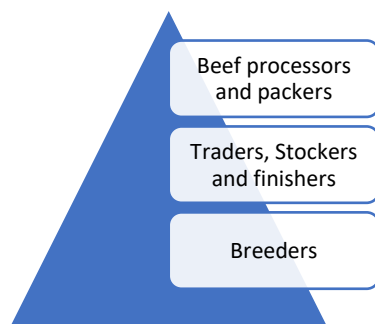
Director	Position	Qualifications and experience
Mr. Okurut Felix	Board chair and Managing Director	Mr. Okurut Felix is a passionate farmer with over 20 years in public services spanning from Judiciary where he rose to head the Planning Function as a principal Economist before moving to Ministry of Agriculture, Animal Industry and Fisheries where he steered the M&E function leading to the development of the very fast M&E Plan. He also supported project development and Enforcement of Standards. In the Ministry of Finance, Planning and Economic Development, he is posted in the Tax Policy Department as Head of the Natural Resources. An economist and lawyer by profession with M.A Economic Policy and Planning, LLB (Muk) and a bachelor's degree in social sciences ( Bias in Economics) with over 27 years of experience in farming including Crop Husbandry.
<b>Dr. Acham Merab</b>	<b>Technical Director Animal</b>	Dr. Merab Acham brings on board a vast range of capacities in Animal Health, Animal Production, Antimicrobial

Director	Position	Qualifications and experience
	<b>Health and Finance</b>	Resistance, One Health, and Food safety as a Veterinary Epidemiologist having worked in the public sector for over 5 years where she rose to the level of a Senior Veterinary Officer in the Ministry of Agriculture, Animal Industry and Fisheries, Uganda before moving to FAO as an Epidemiologist. As an Epidemiologist, she believes Epidemiology is the basic science for preventive medicine. She also worked as co-principal investigator under the AMR component in the Boosting Uganda’s Investment in Livestock (BUILD-Uganda) project. She also provided technical support as a trainer of trainers (TOT) and examiner for the Qualifying the Workforce for AMR Surveillance in Africa and Asia (QWArS) project under ASLM. She holds a Bachelor’s Degree in Veterinary Medicine (Makerere University), Post Graduate Diploma in Agriculture from Israel and a Master of Science in Epidemiology (University of Maastricht, Netherlands).
<b>Helen Atai</b>	<b>Director</b>	Helen Atai is an entrepreneur with over 30 years in farming. She is passionate with farming and adding value to products
<b>Mr Rubagumya John Paul (Esq)</b>	<b>Legal Secretary</b>	Counsel John Paul Rubagumya, a seasoned lawyer with over 10 years of Experience in legal practice with expertise in Land Law and commercial transactions among others. He has been the company lawyer since its incorporation in 2016.

### Market analysis

- **Cattle industry**

FELITAI mixed Demonstration Farm Limited operates within the cattle industry of Uganda. The industry is a significant part of the agricultural sector in Uganda which is predominant in the cattle corridor of Uganda covering over forty (40) districts in the sub-regions of Busoga, Ankole, West Buganda, the Luwero Triangle, Teso and Karamoja. The industry is divided into two (2) main sub-sectors – the beef sector and dairy sector. FELITAI mixed Demonstration Farm Limited is primarily involved in both the dairy and beef sector. The beef sector is characterised by the following value chain:



FELITAI mixed Demonstration Farm Limited is currently a breeder and supplies the other players in the value chain including traders, stockers, finishers, beef processors and packers. Currently, the breeder section of the value chain is still under-developed but with potential to get better given the focus on both AI

and natural breeding. The future for beef farming in Uganda is bright due to largely pronounced population growth, rapid urbanisation and the increasing purchasing power of the expanding middle class as major forces driving growth in beef consumption in the region over the long term.

Beef consumption in Uganda is **only 6 kgs per capita**, which is below the **recommended 50 kgs** by FAO. According to the OECD-FAO Agricultural Outlook 2022-2031, global beef production is forecast to grow over the long term, driven by rising global demand for protein. The low consumption rate for meat among Ugandans is attributed to the deficit in meat production, poor beef quality and lengthy period of raising and feeding animals to reach the market and slaughter age. Strong population growth, rapid urbanisation and the increasing purchasing power of the expanding middle class will be the major forces driving growth in beef consumption in the region over the long term. The demand for beef in Uganda has been steadily rising over the last 10 years.

### **Corporate Governance and regulatory compliance**

FELITAI mixed Demonstration Farm Limited has an active board of directors and is compliant with all the provisions of the Companies Act and other relevant laws of the Republic of Uganda.

## Market analysis

### **Product**

FELITAI mixed Demonstration Farm Limited sells livestock as its primary product but also sells raw milk.

### **Industry analysis**

FELITAI mixed Demonstration Farm Limited operates in the cattle industry of Uganda. The industry is mainly composed of small informal farmers with a few commercial farmers. The industry boasts of 14.7 million<sup>1</sup> head of cattle. The industry is predominant in the cattle corridor of Uganda covering more than 40 districts in the sub-regions of Ankole, West Buganda, the Luwero Triangle, Teso and Karamoja. The industry is divided into two (2) main sub sectors, the beef sector and dairy sector.

## BRIEF ON THE DAIRY AND MEAT IN UGANDA

### 1.1 Dairy

The dairy sub-sector plays an important role in the lives of many Ugandans, as a source of food, income and employment. It contributes about 80% of the livestock sector GDP, and approximately 15% of the total agricultural sector GDP. Sustained by increased investments along the dairy value chain, the sub-sector has attained high performance over the last two decades which has seen milk production increase from 1.48 billion litres in 2010 to 2.71 billion liters in 2020. However, this increase in milk production has arisen from growth in cattle numbers while productivity has declined. An estimated 1.67 million households in Uganda own cattle and the sub-sector sustains about 8 million Ugandans. The dairy industry is still dominated by indigenous breeds that account for 93.5 percent of total dairy herd with improved breeds still at 6.5 percent. The average daily

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<sup>1</sup> Source: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Uganda Bureau of Statistics

milk yield of the indigenous cattle is 1.5 litres compared to 24 litres from improved dairy commercial farms and at research stations.

Investments in dairy processing have grown to 135 dairy processing firms in the categories of large, medium and small-scale and cottages with a processing capacity of 2.89 million litres per day, against a target of 3.3 million litres in 2020 (DDA, 2020). The nine top milk processing firms control over 95 percent of the market share of the milk products. However, most of these processing firms operate at 57% of their installed capacity

The local demand for milk stands at 2.17 billion liters valued at USD 1.41 billion which translates to 80% of all the milk produced. The world demand for dairy was estimated at US\$ 83.02 billion for the year 2020 of which Uganda contributed only US\$ 75.2 million accounting for 0.09 percent of the market share. The major dairy products traded in the world market are broadly categorized into six major product categories with Cheese and curd having the highest market value of all dairy products at USD 33.3 billion followed by milk and cream concentrated at USD 22.1 billion, milk and cream not concentrated follows at USD 9.16 billion and butter including dehydrated butter at USD 8.83 billion while buttermilk, curdled milk at USD 4.79 and; cream having the least value billion at 4.75 bn.

Uganda's dairy exports are concentrated in three categories; milk and cream not concentrated at USD 38.7 million; milk and cream concentrated at USD 24.9 million and then butter including dehydrated butter and ghee at USD 9.4 million. The leading importers for product 0401: milk and cream not concentrated in USD are Germany 1.42 billion; China 1.32 billion; Belgium 755 million; Italy 678.5 million and Netherlands 527.6 million. For this product category, Uganda does not export to any of these markets. For the product category 0402: milk and cream concentrated, the major importers by market size USD are; China 3.33 billion, Algeria 1.11 billion, UAE 917.7 million, Hong Kong 915.7 million and Saudi Arabia 877.8 million. Uganda does not export to any of these markets for this product category. At USD 33.2 billion, product 0406: cheese and curd was the most demanded dairy product in 2020; Germany, United Kingdom, France, Italy and Belgium are the leading markets. Uganda exported only USD 11,000 of this product but to none of these countries.

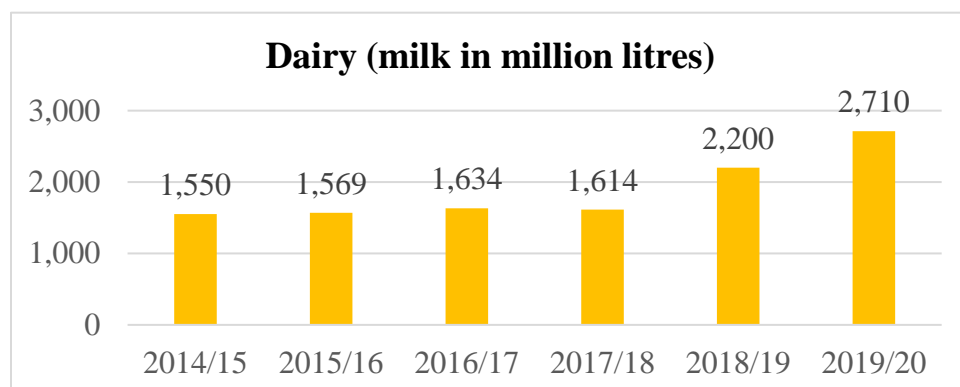
The leading importers of dairy and dairy products in Africa by import value in USD are; Algeria 1.2 billion, Nigeria 833.3 million, Egypt 612.9 million, Libya 316.1 million, Morocco 277.4 million and South Africa 173.9 million. Of these, Uganda only exports to Egypt and has not penetrated other markets and all of them rely from outside Africa suppliers. For example, the major suppliers of dairy products to Nigeria are New Zealand, Germany, Ireland, Belgium and Netherlands.

The dairy industry faces a number of challenges that the country needs to address in order to fully harness the full potential of the industry. These challenges cut across the whole value chain and they include: ***low yielding indigenous breeds with average daily yield of 1.5 liters other than the target 24 liters and low survivability of improved dairy breeds; high incidences of pests, vectors and diseases; limited access and affordability of assisted reproductive technologies; poor quality***



*of veterinary drugs, vaccines and acaricides; high cost of utilities such as power, water; limited access to affordable and long-term financial services; low adherence to product quality standards for potential markets and limited penetration of high value markets.* The proposed strategies to turn around the industry include: **scale up public investment in infrastructure and services for enhancement of dairy product quality; equip and accredit the national dairy laboratory; rehabilitate and equip the milk collection centers; public investment in local animal vaccine and drug research, development and commercialization.**

**Figure 1.1 : Production quantities for Dairy for the period FY 2014/15 – FY 2019/20**

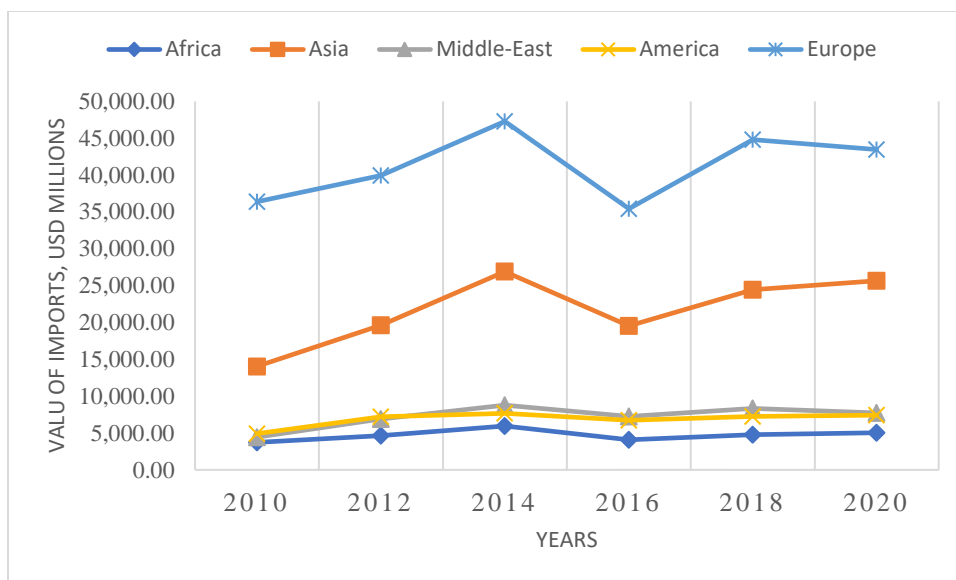


**Table 1.2: Uganda’s market share of dairy products on the international market (million USD)**

Exporters	2010	2012	2014	2016	2018	2020
World imports (USD, millions)	63,505.50	78,351.20	96,568.30	73,005.60	89,576.50	89,316.70
Uganda exports (USD, millions)	13.75	20.51	29.32	53.69	73.11	74.83
Share of Uganda’s exports to world imports (%)	0.022	0.026	0.030	0.074	0.082	0.084

Source: Author calculations based on ITC Trade map data, 2022

1. When the world demand was disaggregated by the five major regions, it was found that there are significant variations across the regions in terms of total size of demand and the nature of product demanded. Europe is the leading importer of dairy products and in 2020 it imported dairy products worth USD 43.5 billion accounting for approximately 48.7% of world imports. While Europe is the biggest importer, it registered the lowest growth in dairy imports across all regions.



**Figure 1.3: trends in value of dairy products imports across the five continents of the World, USD millions**

- Uganda's exports to Europe in 2020 was USD 16,000 which was less than the USD 36,000 that was exported to the region in 2019. Asia is the second leading world importer of dairy products at USD 25.6 billion and the region recorded the highest growth rates in imports of the product of 82.6% between 2010 to 2020 see Figure 2.8.1
- The Middle East recorded the second highest growth in dairy imports at 74.4% from USD 4.4 billion in 2010 to USD 7.7 billion in 2020. Uganda's dairy exports to the Middle East increased from USD 139,000 in 2010 to USD 1.017 million. At USD 0.82 million, Jordan is the largest buyer of Uganda's dairy products followed by UAE at USD 0.125 million. Further, exports to the region are marked by inconsistencies and wide variations across the years showing that Uganda has not effectively tapped the high market for dairy products from the Middle East. America and Africa imported dairy products worth USD 7.4 billion and USD 5.1 billion respectively.
- The major dairy products traded in the world market are broadly categorized into six major product categories and Table 2.8.2 highlights the value of these products. Cheese and curd has the highest market value of all dairy products at USD 33.3 billion followed by milk and cream concentrated at USD 22.1 billion while buttermilk, curdled milk and cream; and whey whether or not concentrated have the least value.

**Table 1.4 : Major dairy and dairy products imported by value, USD billions**

Dairy and dairy products aggregate	2011	2013	2015	2017	2019	2020	Decade growth 2011 to 2020 (%)
Product 0401: Milk and cream not concentrated	8.64	9.09	7.62	9.86	9.29	9.16	5.9
Product 0402: Milk and cream concentrated	21.81	24.48	19.51	19.92	21.24	22.14	1.5
Product 0403: Buttermilk, curdled milk and cream	4.54	4.91	4.31	4.62	4.66	4.75	4.6
Product 0404: whey whether or not concentrated	4.65	5.99	4.29	4.53	4.49	4.79	3.2
Product 0405: Butter including dehydrated butter	7.84	8.06	6.81	9.79	9.91	8.83	12.6
Product 0406: Cheese and curd	28.55	31.76	27.23	30.47	32.69	33.34	16.8
Total	76.04	84.28	69.78	79.18	82.29	83.02	9.2

Source: Trade map, 2022

- In terms of growth, the world market of the six dairy product categories grew at an aggregate value of 9.2 percent for the period 2011 to 2020 but there were variations across the products. The market for cheese and curd grew highest at 16.8 percent followed by that of butter with Milk and cream concentrated registering the lowest growth at 1.5 percent.
- The leading importers for product 0401: milk and cream not concentrated in USD are Germany 1.42 billion; China 1.32 billion; Belgium 755 million; Italy 678.5 million and Netherlands 527.6 million. For this product category, Uganda does not export to any of these markets. For the product category 0402: milk and cream concentrated, the major importers by market size USD are; China 3.33 billion, Algeria 1.11 billion, UAE 917.7 million, Hong Kong 915.7 million and Saudi Arabia 877.8 million. Uganda does not export to any of these markets for this product category. In 2020, the United Kingdom was the world's leading importer of product category 0403: buttermilk, curdled milk and cream and imported USD 547.2 million worth of the product. Other major importers of this product include: Italy 431.5 million, Netherlands 299.1 million, Spain 233.3 million and Belgium 218.4 million. Uganda did not

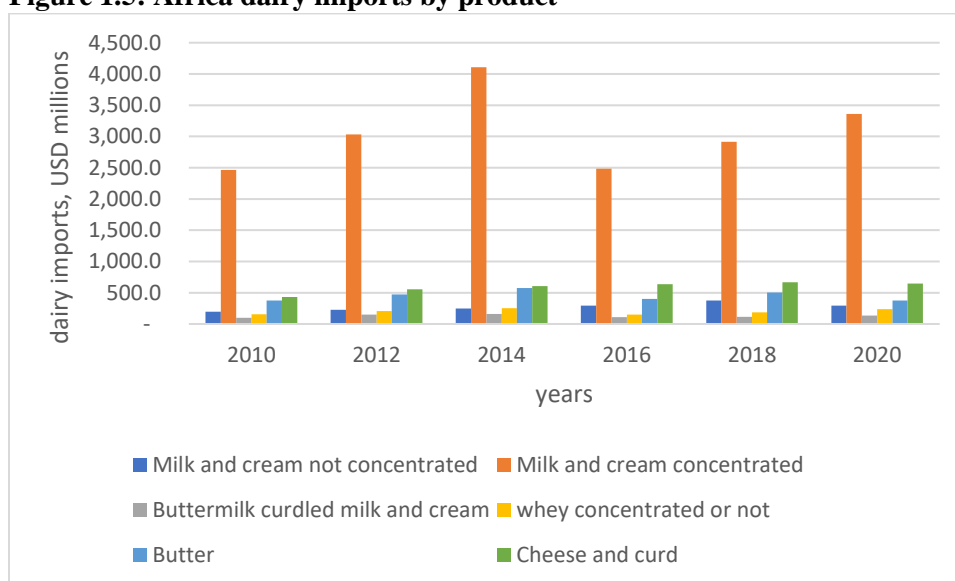
export this product to these markets. South Sudan and Sudan were Uganda's leading importer for this product.

7. China was the world's leading importer of product 0404: whey whether or not concentrated and spent USD 817.7 million in 2020. Other major importers of this product include: Netherlands 478.7 million, USA 289.5 million, Germany 246.7 million and France 194.7 million. Uganda does not export this product to these countries and only ships to Egypt, India and South Sudan. For product 0405: butter including dehydrated butter, France was the leading importer in 2020 and spent USD 827.6 million. Other major importers of the product by import value, USD were Germany 798.1 million, Netherlands 610.6 million, Russia 600.5 million and China 546.1 million. Uganda did not export this product to these countries and its major importers were Egypt, Kenya, Oman and Japan.
8. At USD 33.2 billion, product 0406: cheese and curd was the most demanded dairy product in 2020. Germany was the leading importer with value of 4.75 billion followed by United Kingdom 2.21 billion while France, Italy and Belgium followed at 2.08 billion, 1.65 billion and 1.41 billion respectively. Uganda exported only USD 11,000 of this product but to none of these countries. Uganda has not invested in the production and export of this product despite the fact that it registered the highest growth in demand over the decade. Therefore, Uganda needs to effectively study and develop dairy processing into cheese to tap into the world cheese market which is worth 31 billion USD.
9. For the world market, besides USA and India where Uganda exports its dairy products, Uganda does not export to other largest importing countries for dairy products such as; Germany (over 9 billion USD annually worth of dairy imports), China (5.5 billion USD), Netherlands (5.1 billion USD) and France (4.3 billion USD) and others. Uganda therefore needs to study and negotiate these markets to expand market for milk products. By product type, Uganda's dairy exports are dominated by milk and cream and the country exports 0% of the cheese that dominates the African (58%) and World (45%) dairy imports.

**a. African market**

10. The demand for dairy products in Africa is increasing as demonstrated by the 35.5% growth in imports of the product from USD 3.7 billion in 2010 to USD 5.05 billion in 2020. By category, milk and cream concentrated is the most imported product at USD 3.36 billion accounting for 66.6% of the value of dairy imports. The second most imported product is cheese and curd (see figure 2.8).

**Figure 1.5: Africa dairy imports by product**



11. The leading importers of dairy and dairy products in Africa by import value in USD are; Algeria 1.2 billion, Nigeria 833.3 million, Egypt 612.9 million, Libya 316.1 million, Morocco 277.4 million and South Africa 173.9 million. Of these, Uganda only exports to Egypt and has not penetrated other markets and all of them rely from outside Africa suppliers. For example, the major suppliers of dairy products to Nigeria are New Zealand, Germany, Ireland, Belgium and Netherlands.

**Table 1.6: Top importers of dairy and dairy products by value, USD millions**

Importer	2013	2014	2015	2016	2017	2018	2019	2020
Algeria	1,260.2	2,043.5	1,168.7	976.6	1,405.5	1,279.9	1,116.2	1,264.7
Nigeria	431.9	830.9	482.7	422.4	448.1	315.6	378.6	833.3
Egypt	768.3	876.4	758.9	659.3	473.7	625.7	639.7	612.9
Libya	-	-	-	375.9	276.2	346.8	300.5	316.1
Morocco	301.2	372.6	193.9	194.9	258.3	280.8	246.3	277.4
South Africa	126.8	148.9	148.2	121.7	172.1	184.2	171.7	173.9

Source: Trade map, 2022

The major export destinations for Uganda's dairy products in Africa are Kenya (mainly for UHT milk), Egypt (for butter and ghee), South Sudan (for milk powder), Tanzania (for milk powder and butter) and

DRC (for milk powder). These take up 79.7 percent, 2.7 percent, 3.0 percent, 3.2 percent and 3.8 percent of the Ugandan dairy exports respectively.

Uganda needs to harness its dairy export *untapped potential* to importing countries such as;

- i. Algeria which is the leading importer in Africa with dairy imports valued at over 1.2 billion USD. Colleagues, note that samples of Ugandan milk powder have been exported to Algeria and the exporting modalities are being finalized. Note that Algeria imports its dairy products mainly from Newzealand, France, Netherlands and Poland.
- ii. Nigeria which is the second leading importer in Africa with dairy imports valued at over 480 million USD. Note that Nigeria imports it dairy products mainly from Newzealand, Germany, Ireland, Sweden and Netherlands.
- iii. Libya, Moroco, South Africa and Mauritius are other African leading potential markets with their dairy imports above 100 million USD per year.

#### **b. East African market**

Uganda leads the East African milk export market, owning 93% of the East African milk export market and exporting mainly to Kenya (74%). With the restrictions on milk exported to Kenya from Uganda, the country should expedite other exports markets to propel the milk industry.

##### **i) Dairy and dairy products market outlook**

According to FAO (2021), world milk production is projected to grow at 1.7% p.a. (to 1020 MT by 2030) over the next decade, faster than most other main agricultural commodities. India and Pakistan are expected to contribute to more than half of the growth in world milk production over the next 10 years. They are also expected to account for more than 30% of world production in 2030. Production in the European Union is projected to grow more slowly than the world average. Strong production growth is expected in Africa, mostly due to larger herds.

Regarding consumption, most dairy production is consumed in the form of fresh dairy products, including pasteurized and fermented products. The share of fresh dairy products in world global consumption is expected to increase over coming decade due to stronger demand growth in India and Pakistan, which inturn is driven by income and population growth. In Europe and North America, overall per capita demand for fresh dairy products is stable to declining, but the composition of demand has been shifting over the last several years towards dairy far, e.g. full-fat drinking milk and cream. The largest percentage of total cheese consumption occurs in Europe and North America, where per capita consumption is expected to continue to increase. Consumption of cheese will also increase where it was not traditionally part of the national diet. The dominant use of skimmed milk powder (SMP) and whole milk powder (WMP) will continue to be in manufacturing sector, notably in confectionary, infant formula, and bakery products.

## **Challenges faced by the Dairy Industry**

The dairy industry faces a number of challenges that cut across the whole value chain from production, to processing and marketing and distribution.

- i. Low yielding indigenous breeds and low survivability of improved dairy breeds of cattle.
- ii. High incidences of pests, vectors and diseases including tick borne diseases, foot and mouth diseases, etc.
- iii. Limited access and affordability of assisted reproductive technologies such as artificial insemination.
- iv. Poor quality of veterinary drugs, vaccines, acaricides and animal feeds leading to high cost of production in the long run.
- v. Seasonal variations in milk production and supply that affects operational efficiency and full utilization of installed milk processing capacities
- vi. High costs of utilities such as electricity and water leading to high operational costs and uncompetitiveness of local processing firms in external markets
- vii. Limited access to affordable and long-term financial services which affects execution of planned investments including expansion and upgrading of processing lines.
- viii. Low adherence to product quality standards for potential markets including sanitary and phytosanitary standards for example disease history of endemic diseases such as FMD
- ix. Low quality of dairy products from most of the cottages and small scale processors
- x. Limited dairy laboratories at regional and district levels including mobile laboratory vans to monitor quality and safety of milk and milk products
- xi. Limited penetration of high value external markets

## 1.2 Meat Subsector

Meat is one of the major products that is derived from livestock production and is the major driver for the development of the industry. The meat industry is diverse and beef is the main driver as it contributes 61.8 percent of all meat produced while goat meat, mutton, pork and poultry meat contribute the remaining 23.3 percent. The meat industry is dominated by indigenous breeds of cattle, goats, sheep, pigs and poultry. Annual production of meat in 2017 was estimated at 341,946MT; with beef at 211,358 MT; goat meat and mutton at 40,910 MT; pork at 24,197 MT and poultry at 65,481 MT.

Meat consumption in Uganda is estimated at 6.5 kg per person per year translating into 292,500 MT valued at 1.17 billion, a level much lower than other African countries such as Kenya and South Africa at 12 and 14 kg/person/year respectively and the recommended 50kgs Per annum by FAO. The global import value of meat and edible meat offal grew by 45.7 percent from USD 93.3 billion in 2010 to USD 135.9 billion in 2020. There were great variations across product categories and the four regions of the world; Asia, Africa, America, Middle-East and Europe. At the beginning of the decade in 2010, Europe had the highest imports of meat and edible meat offal at USD 49.174 billion, followed by Asia at USD 25,879 billion, America at USD 12,162 billion, Middle East USD 6,270 billion, and Africa at USD 3,190 billion. However, At the end of the decade in 2020, Asia had replaced Europe as the world's leading importer of meat and edible meat offal with the import value of USD 65.9 billion while Europe's imports had declined to USD 45.1 billion. Apart from Europe that experienced a decline, other continents experienced growth; America from USD 12.1 billion to 19.5; Middle East from USD 6.2 billion to 9.1 billion while Africa added USD 1.1 billion to its imports of the product from USD 3.2 billion to 4.3 billion.

At country level, considering the top 10 importing countries, China registered the highest growth of 1260.6 percent from USD 2.2 billion to USD 30.3 billion. Japan, the second biggest importer of meat registered a growth rate of 20.3 percent from USD 8.5 billion to USD 10.3 billion. In USA, Meat imports grew by 100.2 percent from USD 4.7 billion to USD 9.5 billion. Republic of Korea, Canada, Netherlands and Hong Kong-China were the other countries that experienced high growth rates at 139.8%, 25.9%, 25.7%, and 24.3% respectively.

In terms of growth in the import value of the different meat products for the period 2010 to 2020, meat of bovine animals frozen experienced the highest growth of 105.2%, followed by edible offal of bovine animals, swine, sheep, goats, horses at 72.4%, and meat of swine, fresh, chilled or frozen at 51.3%. The import value of three products declined for the review period; meat and edible offal of rabbits and other animals, fresh, chilled or frozen declined by 28.2%; meat of horses, asses, mules or hinnies, fresh, chilled or frozen declined by 25.9%, and pig fat, free of lean meat, and poultry fat declined by 3.8%.

Uganda has not penetrated the leading markets for meat and meat products and the few attempts are marked by **uneven supplies**. Of the top 10 importing countries and for the period 2010 to 2020, Uganda only exported to Hong Kong – China and Peoples Republic of China. However, the exports to these markets were inconsistent showing that Uganda is still learning these markets. For example, in 2017, Uganda exported meat to Hong Kong – China worth USD 500,000. However,



this declined to USD 10,000 in 2018 before rising to USD 146,000 in 2019 and USD 511,000 in 2020. For China, meat exports started in 2017 with USD 407,000, however, this declined to USD 66,000 in 2018, 0 in 2019 and USD 46,000 in 2020.

The imports of meat and edible meat offal products grew by 33.3 percent from USD 3.19 billion in 2010 to 4.3 billion in 2020. The leading importing countries by value in are: Egypt USD 1.68 billions; South Africa USD 426 million; Ghana USD 356 million and Angola 240 million and Congo USD 187 million. Of the top ten importers of meat in Africa, Uganda exported only to DRC, South Africa and Egypt and the total exports to Africa was only USD 1.34 million of the total USD 4.25 billion available for the region. Further, apart from DRC, the exports to South Africa and Egypt were highly inconsistent across the years. For example, from 2010 to 2020, exports to South Africa were only USD 3,000 and these happened in 2010 and 2014. Similarly, over the ten-year period, Uganda exported meat worth USD 177,000 to Egypt and that was in 2018. For Uganda to be competitive in these markets, it has to maintain consistent supplies in terms of quantity, quality and timeliness.

The East African meat import market is dominated by poultry meat at 50%, followed by beef at 11.3% and goat meat at 1.1%. Uganda is the leading exporter of poultry meat in East Africa owning a market share of 81% and fetching more than 1 million USD annually. These mainly go to Kenya (96%) and DRC (2.3%). Uganda has minimally tapped into the export of goat meat at the East African level, which is worth 37 million USD and being dominated by Kenya at 90%.

The meat industry faces a number of challenges that hinder the exploitation of the numerous potential benefits it offers. The challenges cut across the whole value chain of the industry and key ones are: **limited access to improved animal breeds for meat; high incidences of pests, vectors and diseases; poor quality of inputs including vaccines, drugs and feeds; inadequate meat production and processing facilities; high cost of utilities such as power and water; poor quality of meat products.** Proposed measures to address these challenges include: **establish modern abattoirs and processing facilities; promote cattle feedlot production system; establish quality assurance and disease control infrastructure such as disease diagnosis laboratories, animal quarantine centers.**

## Meat and meat products

12. Meat is one of the major products that is derived from livestock production and is the major driver for the development of the industry. At least of the farming households are engaged in livestock production. The meat industry is diverse and beef is the main driver as it contributes 61.8 percent of all meat produced while goat meat, mutton, pork and poultry meat contribute the remaining 23.3 percent. The meat industry is dominated by indigenous breeds of cattle, goats, sheep, pigs and poultry. Annual production of meat in 2017 was estimated at 341,946MT; with beef at 211,358 MT; goat meat and mutton at 40,910 MT; pork at 24,197 MT and poultry at 65,481 MT.
13. With limited investments along the beef value chain, the beef industry has had an unstable performance over the last decade with a steady rise in beef production between 2013 and 2017 (from 197,000 metric tons to 214000 metric tons) and a decline to 195,000 metric tons in 2019. Eighty one percent of the national herd of cattle are raised for beef, 93% of which are indigenous. The commercial beef industry is small comprising only about 0.8% of the cattle stock. Beef yields are low at 150 kg per adult cow compared with 855kg from research stations.
14. Currently there are only 5 recognized abattoirs in Uganda. Of these only 3 meet international requirements namely; Egypt Uganda Food Security abattoir in Bombo Luwero with capacity of 300 cows and 1,500 goats per day; Sanga Meat Abattoir in Kiruhura district with capacity of 200 cows and 200 goats per day and Pearl Meat abattoir in Nakasongola with capacity of 500 cows and 1,000 goats per day.
15. Beef processing in Uganda remains low **being partly hindered by the quality of animals required for slaughter**. This is the case because farmers do not raise cattle specifically for the beef industry but rather supply culled animals primarily raised for dairy production. Sustainability in supply to the processing factories is also hindered by quarantine restrictions due to occurrence of livestock diseases such as Foot and Mouth disease.

### 1.2.1 Vertical Integration (possible forward and backward linkages)

16. Significant benefits for the beef industry lie across the entire value chain. For backward linkages, the beef industry provides market for animal feeds (processed and forage preservation), veterinary pharmaceuticals, intensifies research in animal breeding and artificial insemination. With regard to forward linkages, beef processing presents good export potential since most beef animals are raised on natural pastures. Other by-products from cattle including, gall stone (used in pharmaceuticals), hides and skins (used to make gelatin), horns and horn products (used to make craft items) and manure (raw material in the manufacture of biogas) are additional importance. Uganda exported hides and skins worth 11.97 million USD and gelatin worth of 5.4 million USD in FY 2019/20 (BOU and MAAIF).

17. Potential investment areas in the beef industry include investment in; **Industrial Animal Feed production; Cattle Fattening Infrastructure/centres (Feedlots); and Combined abattoir and processing facility.** Similarly, the potential industrial linkages include: Leather & tanning; Textile industry; Packaging; Chemical preservatives industries; Food processing Industry; and Fertiliser industry.

### 1.1.3 Domestic and International demand

#### i) Domestic demand

18. Meat consumption in Uganda is estimated at 6.5 kg per person per year translating into 292,500 MT valued at 1.17 billion. The per capita meat consumption in Uganda is much lower than other African countries such as Kenya and South Africa at 12 and 14 kg/person/year respectively. *To reach Kenya's beef consumption level for instance, Uganda has to double its beef production from the current 211,000 MT to 400,000MT.*

#### ii) External demand

##### a. World market

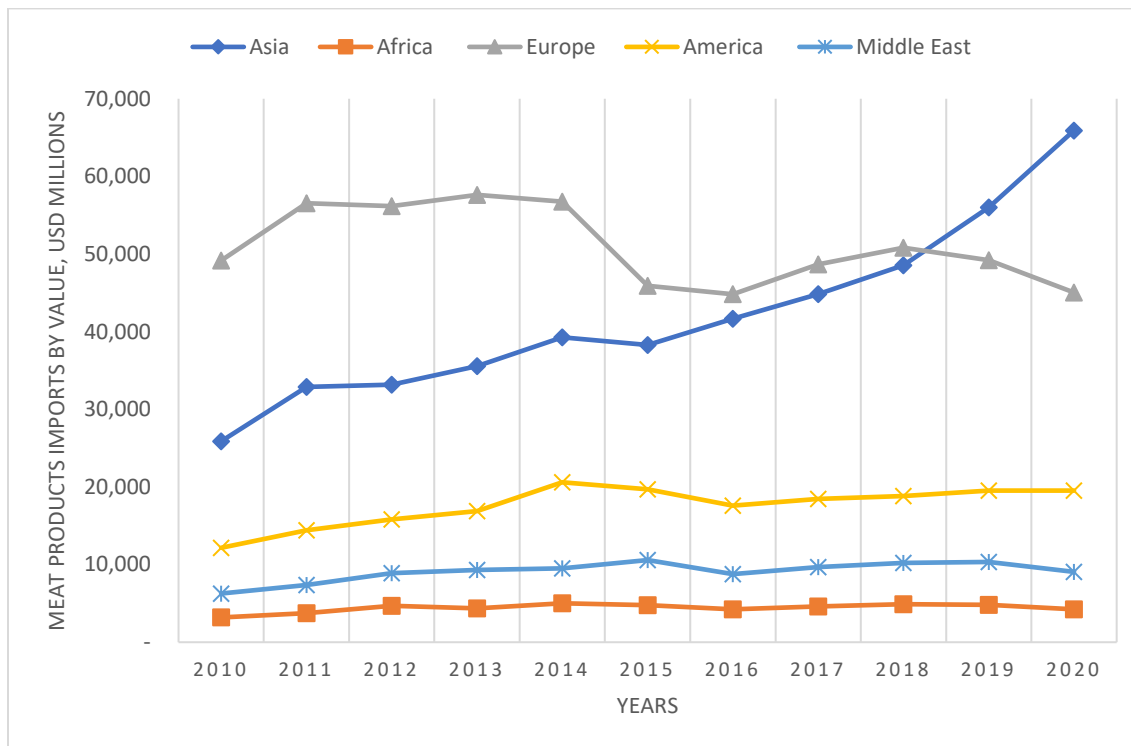
19. The global import value of meat and edible meat offal grew by 45.7 percent from USD 93.3 billion in 2010 to USD 135.9 billion in 2020. Uganda is a very small player in the global meat market as shown by the very small value of meat exports of USD 2.23 million in 2020 that accounted for only 0.0016% of the world market.

Importers	2010	2012	2014	2016	2018	2020
World imports	93,336.3	112,698.7	123,711.6	109,898.7	124,308.9	135,946.1
Uganda exports	1.13	0.33	0.85	1.41	6.91	2.23
<b>Share of Uganda exports to world (%)</b>	<b>0.0012</b>	<b>0.0003</b>	<b>0.0007</b>	<b>0.0013</b>	<b>0.0056</b>	<b>0.0016</b>

Source: ITC Trade map, 2022

20. There were great variations across product categories and the four regions of the world; Asia, Africa, America, Middle-East and Europe. At the beginning of the decade in 2010, Europe had the highest imports of meat and edible meat offal at USD 49.174 billion, followed by Asia at USD 25,879, America at USD 12,162, Middle East USD 6,270 billion, and Africa at USD 3,190 billion.

**b. Figure 2.1: Change in world imports of meat and meat products by region, USD 2010 to 2020**



Source: Trade map, 2022

21. At the end of the decade in 2020, Asia had replaced Europe as the world’s leading importer of meat and edible meat offal with the import value of USD 65.9 billion while Europe’s imports had declined to USD 45.1 billion. Apart from Europe that experienced a decline, other continents experienced growth; America from USD 12.1 billion to 19.5; Middle East from USD 6.2 billion to 9.1 billion while Africa added USD 1.1 billion to its imports of the product from USD 3.2 billion to 4.3 billion.
22. Also, the size of growth was uneven across importing countries. Of the top 10 importing countries (see Table), China registered the highest growth of 1260.6 percent from USD 2.2 billion to USD 30.3 billion. Japan, the second biggest importer of meat registered a growth rate of 20.3 percent from USD 8.5 billion to USD 10.3 billion. In USA, Meat imports grew by 100.2 percent from USD 4.7 billion to USD 9.5 billion. Republic of Korea, Canada, Netherlands and Hong Kong-China were the other countries that experienced high growth rates at 139.8%, 25.9%, 25.7%, and 24.3% respectively.

**Table 2.2: Top importers of meat and meat products by country in USD, millions**

Importers	2010	2012	2014	2016	2018	2020	Decade change (%)
World	93,336.3	112,698.7	123,711.6	109,898.6	124,308.9	135,946.2	45.7
China	2,224.9	4,107.8	5,844.4	10,259.5	11,018.8	30,271.8	1260.6
Japan	8,553.5	9,892.9	9,605.7	9,133.5	10,407.5	10,284.5	20.3
USA	4,721.9	5,781.1	8,433.9	7,908.1	8,427.3	9,453.2	100.2
Germany	6,647.4	7,616.9	8,053.9	6,977.2	7,996.3	7,061.4	6.3
Hong Kong	4,241.9	4,434.9	6,840.6	5,816.8	6,438.9	5,269.5	24.3
United Kingdom	5,905.9	5,723.4	6,485.4	5,459.8	5,850.6	4,982.1	-15.7
Republic of Korea	2,071.3	2,870.9	3,373.3	3,876.5	5,123.6	4,966.8	139.8
Italy	5,824.8	5,882.2	6,094.3	4,729.9	5,165.2	4,722.4	-18.9
France	5,171.8	5,759.4	5,998.4	4,570.8	5,145.5	4,536.9	-12.3
Netherlands	3,289.8	4,540.7	4,686.1	4,057.9	4,567.2	4,134.1	25.7

Source: Trade map (2022)

23. It is important to note that of the top ten leading importing countries, five are from Europe and these are; Germany (USD 7.06 billion), United Kingdom (USD 4.9 billion), Italy (USD 4.7 billion), France (USD 4.5 billion) and Netherlands (USD 4.13 billion). Of these however, only Germany (6.3%) and Netherlands (25.7%) experienced positive growth rates. United Kingdom, Italy and France had negative growth rates of 15.7%, 18.9% and 12.3% respectively.

24. Uganda has not penetrated the leading markets for meat and meat products and the few attempts are marked by uneven supplies. Of the top 10 importing countries and for the period

2010 to 2020, Uganda only exported to Hong Kong – China and China. However, the exports to these markets were inconsistent showing that Uganda is still learning these markets. For example, in 2017, Uganda exported meat to Hong Kong – China worth USD 500,000. However, this declined to USD 10,000 in 2018 before rising to USD 146,000 in 2019 and USD 511,000 in 2020. For China, meat exports started in 2017 with USD 407,000, however, this declined to USD 66,000 in 2018, 0 in 2019 and USD 46,000 in 2020.

25. Meat is traded in 10 major product categories and table shows the trend of import value of these products for the period 2010 to 2020. By import value terms, meat of swine, fresh, chilled or frozen is the most imported meat product at USD 37.9 billion. This is followed by meat of bovine animals frozen at USD 27.3 billion, meat and edible offal of fowls at USD 25.7 billion and meat of bovine animals, fresh or chilled at USD 22.8 billion. Meat of horses, asses, mules or hinnies sold as fresh, chilled or frozen had the least import value at USD 0.38 billion.

**Table 2.3: Value of imports of meat and meat products from Uganda by product category, USD Billions**

Product label	2010	2012	2014	2016	2018	2020	Decade change (%)
Meat of swine, fresh, chilled or frozen	25.076	30.448	30.329	27.425	28.468	37.954	51.3
Meat of bovine animals, frozen	13.328	16.889	21.262	18.231	23.006	27.341	105.2
Meat and edible offal of fowls	20.430	25.300	26.947	23.141	25.719	25.020	22.5
Meat of bovine animals, fresh or chilled	17.391	20.102	22.235	20.643	23.937	22.769	30.9
Edible offal of bovine animals, swine, sheep, goats, horses, etc	5.141	6.638	7.877	8.037	8.046	8.863	72.4
Meat of sheep or goats, fresh, chilled or frozen	5.341	5.999	7.318	5.724	7.973	7.400	38.5
Meat and edible offal, salted, in brine, dried or smoked	3.985	4.271	4.813	4.050	4.302	4.086	2.5
Pig fat, free of lean meat, and poultry fat	0.793	1.104	0.730	0.673	0.614	0.762	-3.8

Meat and edible offal of rabbits and other animals, fresh, chilled or frozen	0.858	0.837	0.943	0.817	0.838	0.616	-28.2
Meat of horses, asses, mules or hinnies, fresh, chilled or frozen	0.513	0.565	0.459	0.350	0.489	0.380	-25.9

Source: Trade map, 2022

26. In terms of growth in the import value of the different meat products for the period 2010 to 2020, meat of bovine animals frozen experienced the highest growth of 105.2%, followed by edible offal of bovine animals, swine, sheep, goats, horses at 72.4%, and meat of swine, fresh, chilled or frozen at 51.3%. The import value of three products declined for the review period; meat and edible offal of rabbits and other animals, fresh, chilled or frozen declined by 28.2%; meat of horses, asses, mules or hinnies, fresh, chilled or frozen declined by 25.9%, and pig fat, free of lean meat, and poultry fat declined by 3.8%.
27. At country level, the leading importers of the various product categories are as follows: for product 0201 – meat of bovine animals, fresh or chilled, the United States of America is the world’s leading importer at USD 3.74 billion. Its import value grew by 178.5% from USD 1.35 billion in 2010 to USD 3.75 billion in 2020 and had the second highest growth after Republic of Korea among the world’s top ten. Other leading importers and their corresponding growth rates (in brackets) were Japan USD 1.96 billion (52.7); Germany USD 1.85 (16.2%); Italy 1.71 (-31.8); Netherlands 1.4 (15.7%) and Republic of Korea USD 0.98 billion (260.2%). Uganda does not export to any of these leading importers and exported USD 28,000 to only South Sudan in 2020.
28. For product 0202 – meat of bovine animals frozen, the world imports grew by 105.1% from USD 13.3 billion in 2010 to USD 27.3 billion in 2020. China is the world’s leading importer of frozen meat of bovine animals and its imports grew by 12518.4% from USD 77.4 million in 2010 to USD 9.8 billion in 2020. Other leading importers and their corresponding growth rates (in brackets) are: United States of America USD 2.68 (97.2%); Republic of Korea USD 1.92 billion (137.1%); Hong Kong – China USD 1.67 billion (263.8%); Japan USD 1.38 billion (37.7%); Egypt USD 1.24 billion (75%). After China, Vietnam experienced the second highest growth in frozen meat imports among the top ten importers registering growth of 2020.3% from USD 20.1 million in 2010 to USD 425.4 million in 2020.
29. Between 2010 and 2020, Uganda exported frozen bovine meat to four of the top ten importers and these are; Vietnam, Hong Kong China, China and Egypt. Vietnam is Uganda’s leading export destination and exports grew from USD 45,000 in 2016 to USD 282,000 in 2020. Uganda begun exporting frozen bovine meat to Hong Kong and China in 2020 and exports to these two countries were USD 94,000 and USD 46,000 respectively. Uganda first exported

frozen bovine meat to Egypt in 2018 with a consignment worth USD 177,000. However, there were no exports in 2019 and 2020. Other key importers of frozen bovine meat for Uganda are Thailand USD 13,000 and South Sudan USD 11,000.

**Table 2.4: Importers of Uganda’s frozen bovine meat by value, USD ‘000’**

Importers	2010	2011	2012	2014	2016	2018	2019	2020
World	0	5	48	140	88	814	146	510
Viet Nam	0	0	0	0	45	421	102	282
Hong Kong, China	0	0	0	0	0	0	0	94
DRC	0	0	0	3	20	200	0	64
China	0	0	0	0	0	0	0	46
Thailand	0	0	0	0	0	0	0	13
South Sudan	0	0	0	136	12	0	0	11
Somalia	0	0	2	0	0	0	0	0
Rwanda	0	0	1	2	3	0	0	0
Sudan	0	0	45	0	8	16	45	0
Sudan (before 2012)	0	5	0	0	0	0	0	0
Egypt	0	0	0	0	0	177	0	0

Source: Trade map, 2022

30. For the product 0203 – Meat of swine, fresh, chilled or frozen, the value of world imports grew by 51.4 percent from USD 25.1 billion in 2010 to USD 37.9 billion in 2020. At USD 11.9 billion, China imported the highest value of this product in 2020 which was an increase of 5585.2% from USD 208.9 million that it imported in 2010. Other key leading importers of swine meat whether fresh, chilled or frozen by value in 2020 and percent change between 2010 and 2020 (in brackets) are: Japan USD 4.5 billion (-1.3%); Italy USD 2.1 (-10.7%); Germany USD 1.7 billion (-20.4); Poland USD 1.5 billion (18.5%); Republic of Korea USD 1.4 billion (108.1%); Mexico USD 1.4 billion (38.5%); UK USD 1.14 billion (10.6); USA USD 1.1 billion (13.4%); France USD 0.85 billion (-20.3); Hong Kong – China USD 0.76 (41.4%). From the above, it is clear that four countries experienced decline in imports of swine meat and all are European apart from Japan. Also, the countries that registered the highest growth rates in imports of the product are from Asia; China, Republic of Korea and Hong Kong -China.



**Table 2.5: Top world importers of Ugandan Meat of swine, fresh, chilled or frozen, USD Millions**

Importers	2010	2012	2014	2016	2018	2020	Decade change (%)
World	25,076.8	30,448.1	30,329.6	27,425.3	28,468.7	37,954.5	51.35
China	208.9	981.5	1,049.9	3,189.8	2,073.9	11,881.3	5585.15
Japan	4,510.6	5,122.5	4,314.6	4,174.1	4,410.1	4,451.6	-1.31
Italy	2,340.7	2,430.2	2,668.2	1,982.6	2,117.9	2,090.3	-10.70
Germany	2,115.3	2,391.5	2,306.7	1,628.4	1,703.1	1,684.3	-20.38
Poland	1,287.6	1,513.1	1,632.8	1,314.9	1,681.8	1,526.4	18.54
Republic of Korea	664.3	1,130.5	1,157.8	1,268.1	1,733.5	1,382.3	108.07
Mexico	980.8	1,007.6	1,559.4	1,312.3	1,379.3	1,358.5	38.49
UK	1,035.8	1,067.8	1,151.8	1,050.7	1,140.4	1,146.2	10.65
USA	924.1	1,015.3	1,460.6	1,330.1	1,277.9	1,048.1	13.41
France	1,059.4	1,157.9	1,245.1	734.7	861.8	844.7	-20.27
Hong Kong, China	540.7	727.2	695.9	876.2	674.6	764.4	41.37

Source: Trade map, 2020

31. For the decade 2010 to 2020, Uganda did not export to any of the world's top ten importers of swine meat whether fresh, chilled or frozen. During this period, Uganda's exports of this product were limited to African countries which are; Somalia, South Sudan, DRC, Rwanda and Sudan. However, the export values remained small. From the above, it is clear that the global market for swine meat whether fresh, chilled or frozen is growing rapidly with Asia as the main driver. Uganda should therefore develop strategies and actions to penetrate China and other Asian markets for this product.
32. For product 0204 – meat of sheep or goats fresh, chilled or frozen, the world's import value grew by 38.5% in the last decade from USD 5.34 billion in 2010 to USD 7.4 billion in 2020. The trend in growth varied greatly across the world's importing countries. China registered the highest growth in imports of 1012.9% over the 10-year period with imports of the product rising from USD 156.7 million in 2010 to USD 1.74 billion in 2020.

**Table 2.5: Top world importers of Ugandan meat of sheep or goats fresh chilled or frozen**

Importers	2010	2012	2014	2016	2018	2020	Decade change (%)
World	5,341.8	5,999.7	7,318.4	5,724.8	7,973.3	7,400.5	38.5
China	156.7	421.5	1,133.1	573.8	1,309.1	1,744.3	1012.9
USA	593.4	650.4	798.9	785.8	1,032.8	1,010.7	70.3
France	707.6	684.2	727.1	526.5	577.2	532.3	-24.8
Germany	304.2	339.3	345.2	357.2	481.7	429.6	41.2
United Kingdom	600.3	582.4	672.7	468.4	499.7	409.3	-31.8
UAE		288.8	334.1	334.1	386.1	359.3	24.4
Netherlands	104.7	160.9	164.6	182.9	274.1	219.5	109.5
Malaysia	100.9	95.9	152.2	120.4	181.7	209.3	107.3
Belgium	28.6	216.6	225.1	198.1	238.6	200.8	-29.7
Qatar	73.9	128.4	123.3		230.9	198.3	168.5
Japan	129.4	127.9	161.1	134.5	200.5	189.9	46.9

Source: Trade map, 2022

33. Other key importers of meat of sheep or goats whether fresh, chilled or frozen ranked by import value USD and percent growth changes (%) from 2010 to 2020 are: USA USD 1.01 billion (70.3%); France USD 532 million (-24.8%); Germany USD 41.2 million (41.2%); UAE USD 359.3 million (24.4%); Netherlands USD 219.5 million (109.5%); and Malaysia USD 209.3 million (107.3%) among others. Regionally, over the decade, Asia had the highest growth of

457.9%, followed Middle East at 96.5%, then North America at 62.2% while Europe was the last at 12%. It is clear from the above that Asia is the driver for the world’s demand for meat of sheep or goats whether fresh, chilled or frozen. In the same manner, the demand for this product is declining in Europe. Over the decade under review, Uganda exported to none of the top world importers. The key export destinations for Uganda’s sheep or goat meat whether fresh, chilled or frozen were: DRC, Somalia, South Sudan, Central African Republic, Hong Kong – China, Oman, Vietnam and Sudan. However, exports were inconsistent across the years with the highest exports registered in 2017 at USD 192,000 that has gradually fallen to USD 8,000 in 2020.

**Table 2.6: Leading importers from Uganda for sheep or goats meat whether fresh, chilled or frozen by value, USD ‘000’**

Importers	2010	2012	2014	2016	2017	2018	2019	2020
World	2	0	155	140	192	49	57	8
DRC	0	0	152	119	113	47	0	8
Somalia	2	0	0	0	0	0	0	0
South Sudan	0	0	3	0	0	0	0	0
Central African Republic	0	0	0	0	0	0	0	0
Hong Kong, China	0	0	0	0	30	0	0	0
Oman	0	0	0	0	0	0	50	0
Viet Nam	0	0	0	20	50	0	0	0
Sudan	0	0	0	0	0	2	7	0

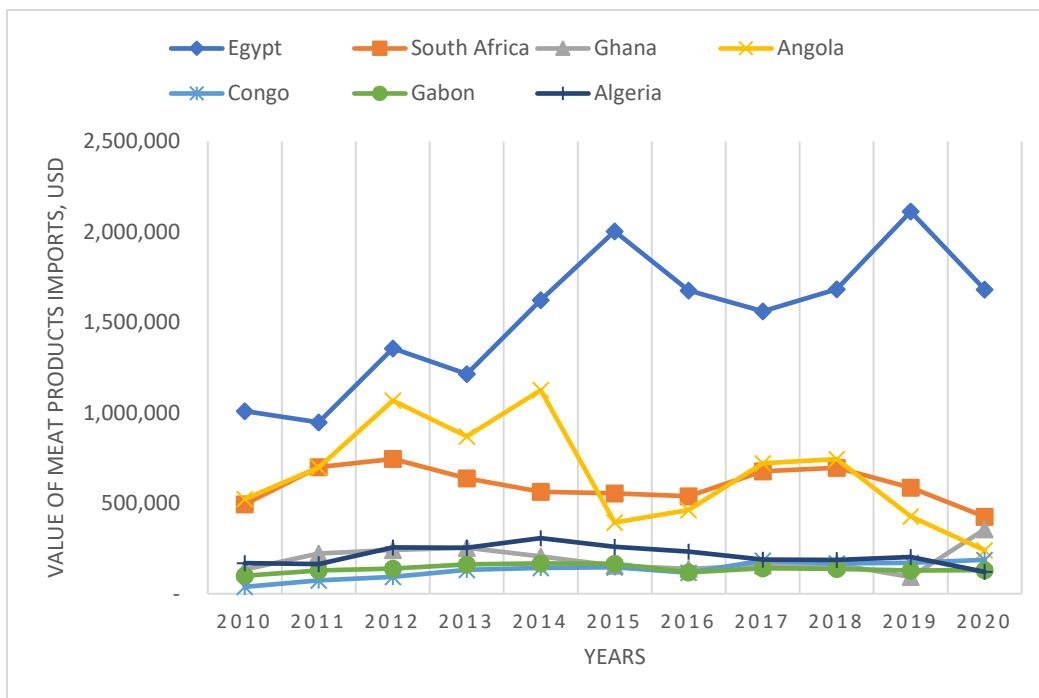
Source: Trade map, 2022

34. Uganda is a net exporter of livestock and livestock products with beef contributing 23% (USD 2.2 million). Uganda currently contributes only 0.002% of the global meat export market which is worth 130 billion USD. Uganda’s meat exports as of 2020 were dominated by poultry meat at 83% of the exported quantity, beef at 16.2%, goat meat at 0.21%, pork at 0.14%. Uganda has minimally tapped into the world beef market, mainly due to the continued occurrence of Foot and Mouth Disease and failure to do surveillance for Mad cow disease (BSE). This has led to continued rejection of Uganda’s high-quality beef on the international market. The major export destinations markets for Uganda’s beef and beef products are mainly; Vietnam, Hongkong (takes mainly omasum) and Oman. Poultry meat has evolved over the past 10 years to be the leading meat export for Uganda. The bulk of the poultry meat exported goes mainly to Kenya.

**a. African market**

35. The imports of Ugandan meat and edible meat offal products grew by 33.3 percent from USD 3.19 billion in 2010 to 4.3 billion in 2020.

**Table 2.9.2.1: Trend of imports of Ugandan meat products by Africa’s leading importers**



Source: Trade map, 2022

36. The leading importing countries by value in are: Egypt USD 1.68 billions; South Africa USD 426 million; Ghana USD 356 million and Angola 240 million and Congo USD 187 million. Of the top ten importers of meat in Africa, Uganda exported only to DRC, South Africa and Egypt and the total exports to Africa was only USD 1.34 million of the total USD 4.25 billion available for the region. Further, apart from DRC, the exports to South Africa and Egypt were highly inconsistent across the years. For example, from 2010 to 2020, exports to South Africa were only USD 3,000 and these happened in 2010 and 2014. Similarly, over the ten-year period, Uganda exported meat worth USD 177,000 to Egypt and that was in 2018.

**Table: Importers of Uganda’s meat and meat products by value, USD**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
World	1,129	502	334	1,077	847	1,521	1,404	6,174	6,904	2,196	2,233
Africa	1,055	259	300	958	682	1340	926	1,229	3,117	710	1,339

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Kenya	0	0	4	0	0	70	319	528	2523	457	1,146
DRC	977	161	0	5	166	1090	564	599	364	0	137
South Sudan	0	0	0	105	191	0	28	0	0	0	56
Somalia	70	77	170	315	312	55	0	0	0	0	0
Burundi	1	0	0	0	3	0	0	37	0	0	0
Rwanda	1	2	3	309	7	49	7	0	0	0	0
South Africa	3	0	0	0	3	0	0	0	0	0	0
Sudan	0	0	123	224	0	76	8	65	53	79	0
Sudan (before 2012)	3	19	0	0	0	0	0	0	0	0	0
Egypt	0	0	0	0	0	0	0	0	177	0	0
Tanzania, United Republic of	0	0	0	0	0	0	0	0	0	174	0

37. Uganda has only fully utilized the Kenyan import market where it is the leading supplier, owning 50% of the market worth 7 million USD. However, for DRC, Uganda takes only 1.05% of the import market which is worth 103 million USD; while for South Sudan, Uganda takes only 0.4% of the market share which is worth 4 million USD. Uganda does not export beef to Africa's top importers such as Algeria, Mozambique and Mauritius. Therefore, Uganda needs to study and negotiate this export market potential. The coming onboard of the African Continental Trade Agreement, Uganda can be a better sourcing destination for these countries. This will however be possible if Uganda can have sustainable supplies in terms of quality and quantity

**b. East African market**

38. The East African meat import market is dominated by poultry meat at 50%, followed by beef at 11.3% and goat meat at 1.1%. Uganda is the leading exporter of poultry meat in East Africa

owning a market share of 81% and fetching more than 1 million USD annually. These mainly go to Kenya (96%) and DRC (2.3%). Uganda has minimally tapped into the export of goat meat at the East African level, which is worth 37 million USD and being dominated by Kenya at 90%. The leading markets where Kenya exports goat meat are UAE, Saudi Arabia, Bahrain, South Sudan, Qatar and Oman. These present market opportunities for Uganda. The untapped import potential for goat meat (in million USD) is 61.8 for UAE, 4.6 for Qatar, 9.1 for Oman, 13.2 for Saudi Arabia and 13.9 for Hongkong.

39. For poultry meat the countries with a demand deficit to be exploited include Saudi Arabia (with an untapped potential worth 624 million USD), UAE (219.9 million USD), Egypt (12.4 million USD), Libya (93.3 million USD), Qatar (86.7 million USD), Oman (83 million USD), DR Congo (89.3 million USD) and Angola (51.3 million USD).

**iii) Meat market outlook.**

40. Per capita availability of meat is expected to grow slowly (by 3%) over the coming decade. Due to health and environmental concerns however, consumers are expected to increasingly replace red meat by poultry meat and dairy products. In high-income countries, the increase in poultry meat availability is projected to account for over half of additional animal protein availability over the coming decade. Demand for poultry meat is projected to grow steadily than beef and pork. Poultry is also more affordable than other meat types, which will also contribute to growing poultry demand in middle and low-income countries.

41. By contrast, beef, pork and mutton consumption levels are expected to remain stable. Weakening demand for beef in high-income countries is due to several factors, including concerns about the climate impact of cattle production, and dietary recommendations by governments, which in several countries, advise limiting weekly intakes of red meat (OECD, 2021). Most countries and regions with high per capita consumption of beef e.g. Canada.

Cattle and Poultry Numbers ('000s) by breed 2013 - 2017						
Year	Cattle		Poultry		Goats	
	Indigenous	Exotic	Indigenous	Exotic	Indigenous	Exotic
*2008	10,679	730	32,835	1,536	12,288	162
2013	12,339	887	38,064	5,332	14,245	188
2014	12,709	914	39,206	5,492	13,829	182
2015	13,090	941	40,382	5,657	15,113	199
2016	13,377	991	40,597	5,694	15,521	204
2017	13,271	918	41,726	5,852	15,826	208

Source: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Uganda Bureau of Statistics

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<b>Meat production in metric tons, 2013 – 2018</b>			
<b>Year</b>	<b>Beef</b>	<b>Goat/Mutton</b>	<b>Pork</b>
2013	197,019	36,736	21,493
2014	202,929	37,838	22,138
2015	209,017	38,973	22,802
2016	214,033	39,987	24,190
2017	211,358	39,990	24,197
2018	217,065	40,910	24,681

Source: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Uganda Bureau of Statistics

<b>Milk production in million litres 2013 – 2018</b>			
<b>Year</b>	<b>Milk-Indigenous</b>	<b>Milk – Exotic</b>	<b>Total Milk produced</b>
			<b>(litres)</b>
2013	724	780	1,504
2014	745	804	1,550
2015	768	828	1,569
2016	848	786	1,634
2017	838	776	1,614
2018	999	1,041	2,040

Source: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Uganda Bureau of Statistics

<b>Livestock numbers (thousand animals), 2013 – 2019</b>							
<b>Species</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Cattle	13,020	13,623	14,031	14,368	14,189	14,572	14,785
Sheep	3,937	3,842	3,842	4,198	4,445	4,584	4,660
Goats	14,433	14,011	15,312	15,725	16,034	16,419	16,945
Pigs	3,691	3,584	3,916	4,037	4,109	4,245	4,411
Poultry	43,396	44,698	46,039	46,291	47,578	48,901	43,121

Source: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Uganda Bureau of Statistics

<b>Number of Livestock by District and Type – 2008 Livestock Census</b>								
<b>Region</b>	<b>District</b>	<b>Cattle</b>	<b>Goats</b>	<b>Sheep</b>	<b>Pigs</b>	<b>Chicken</b>	<b>Ducks</b>	<b>Turkey</b>
Central	Kalangala	5,814	5,762	0	6,547	58,088	8,080	157

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	Kampala	31,614	64,072	8,790	38,306	1,053,031	28,148	5,675
	Kiboga	365,154	105,250	26,270	49,595	428,601	4,582	883
	Luwero	79,787	68,527	13,275	59,040	464,943	7,032	1,398
	Masaka	224,600	244,706	28,652	236,148	1,108,363	58,723	16,223
	Mpigi	216,621	102,828	23,221	108,082	600,950	10,456	1,143
	Mubende	208,535	139,400	31,094	98,487	536,342	12,525	1,614
	Mukono	155,820	206,704	30,808	181,846	1,551,702	49,517	5,558
	Nakasongola	222,185	87,823	6,839	35,283	287,834	6,316	550
	Rakai	279,594	163,806	18,158	102,870	503,623	15,399	1,097
	Ssembabule	177,473	113,204	14,219	35,399	194,462	10,011	2,528
	Kayunga	88,814	82,701	7,707	38,067	327,603	14,327	760
	Wakiso	114,769	132,964	27,542	199,962	2,783,509	33,350	4,852
	Lyantonde	68,572	58,642	5,590	7,770	73,588	2,392	259
	Mityana	75,767	51,029	18,000	80,346	364,398	8,449	1,786
	Nakaseke	160,737	48,634	9,439	29,706	193,392	1,995	245
<b>Sub Total</b>		<b>2,475,856</b>	<b>1,676,052</b>	<b>269,604</b>	<b>1,307,454</b>	<b>10,530,429</b>	<b>271,302</b>	<b>44,728</b>
<b>Eastern</b>	Bugiri	118,427	220,778	14,280	65,453	943,073	74,332	6,229
	Busia	26,787	73,565	2,908	14,203	391,312	13,041	3,777
	Iganga	125,307	169,915	5,064	27,684	904,493	13,469	6,550
	Jinja	40,247	71,893	1,691	26,856	524,159	10,456	2,463
	Kamuli	211,815	219,194	6,540	55,239	724,489	15,538	2,421
	Kapchorwa	95,564	75,073	9,852	8,070	285,543	2,898	427
	Katakwi	136,966	104,932	25,511	19,381	286,229	4,902	3,423
	Kumi	220,055	168,887	30,994	67,650	549,135	9,936	20,360
	Mbale	63,826	96,617	5,108	23,315	459,868	13,100	26,162
	Pallisa	136,225	149,003	20,488	25,302	440,035	20,748	27,928
	Soroti	271,634	236,839	53,010	75,449	808,290	23,910	19,677
	Tororo	119,587	154,058	13,086	45,256	591,552	24,624	33,535
	Kaberamaido	76,109	97,516	33,566	31,607	367,924	13,146	1,850
	Mayuge	85,523	135,669	8,010	18,345	607,880	59,740	13,677
	Sironko	92,562	79,141	9,806	32,733	391,125	8,496	19,769
	Amuria	171,375	113,110	35,942	41,318	545,388	5,703	4,670
	Budaka	40,231	51,942	3,987	5,043	172,627	6,933	8,940
	Bududa	50,809	25,885	4,012	21,386	205,703	2,153	6,061
	Bukedea	86,141	54,810	10,013	23,264	215,251	4,400	5,596
	Bukwo	23,360	23,312	2,137	1,657	94,993	1,761	126
	Butaleja	77,247	71,609	9,732	4,497	251,946	18,524	10,397
	Kaliro	65,364	56,090	2,144	14,775	188,942	3,694	2,298



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	Manafwa	76,602	79,928	4,795	38,905	444,266	7,405	8,658
	Namutumba	76,704	70,212	6,691	12,287	301,875	7,995	3,030
<b>Sub Total</b>		<b>2,488,467</b>	<b>2,599,978</b>	<b>319,367</b>	<b>699,675</b>	<b>10,696,098</b>	<b>366,904</b>	<b>238,024</b>
<b>Northern</b>	Adjumani	131,282	26,030	26,030	7,449	391,626	26,267	971
	Apac	225,088	279,649	45,967	28,442	939,652	34,899	4,043
	Arua	117,157	273,012	45,922	22,927	588,824	21,468	1,402
	Gulu	40,130	65,301	4,289	26,569	299,830	62,358	5,211
	Kitgum	38,457	54,815	11,509	38,444	139,286	31,949	1,234
	Kotido	694,247	535,138	555,688	1,318	219,598	12,737	3,863
	Lira	159,533	161,711	12,749	28,631	1,116,903	30,927	4,927
	Moroto	352,867	380,172	307,028	5,534	260,997	18,834	3,075
	Moyo	103,873	190,341	37,742	9,034	373,086	15,808	776
	Nebbi	101,952	302,576	46,084	19,895	583,704	34,727	1,304
	Nakapiripirit	674,746	547,365	389,676	322	314,308	15,653	1,095
	Pader	57,087	57,807	6,298	39,430	150,317	43,197	1,144
	Yumbe	223,649	409,793	151,356	17,511	709,483	10,888	1,097
	Abim	13,635	37,229	8,381	17,354	61,330	3,373	2,213
	Amolatar	81,269	70,318	34,293	11,503	265,076	15,780	1,189
	Amuru	33,063	67,092	9,773	19,180	142,121	44,754	2,558
	Dokolo	58,902	71,815	16,361	13,602	291,027	14,777	623
	Kaabong	518,465	525,389	424,729	33,829	506,585	16,849	1,551
	Koboko	54,204	101,602	33,250	272	209,513	9,742	648
	Nyadri	123,640	286,929	67,543	29,222	793,213	32,534	2,137
	Oyam	118,603	172,052	19,347	28,350	650,758	21,918	2,606
<b>Sub Total</b>		<b>3,921,849</b>	<b>4,616,136</b>	<b>2,254,015</b>	<b>398,818</b>	<b>9,007,237</b>	<b>519,439</b>	<b>43,667</b>
<b>Western</b>	Bundibugyo	163,913	131,765	14,824	14,692	312,931	27,645	519
	Bushenyi	207,184	376,561	79,757	57,467	364,568	19,971	2,343
	Hoima	109,998	187,128	<b>25,593</b>	104,669	942,843	26,898	2,677
	Kabale	98,552	201,597	83,060	22,255	218,800	5,726	865
	Kabarole	67,115	155,264	13,510	40,781	352,530	8,990	1,742
	Kasese	97,243	227,518	24,890	85,812	752,800	45,036	4,694
	Kibaale	174,926	199,572	24,329	153,512	879,032	34,194	2,140
	Kisoro	28,083	96,815	39,554	10,171	111,347	1,481	128
	Masindi	213,402	233,423	24,943	87,616	1,007,182	39,362	1,843
	Mbarara	149,992	176,464	22,588	12,243	239,470	5,966	711
	Ntungamo	229,004	273,284	41,556	8,899	184,760	8,814	457
	Rukungiri	60,061	134,757	19,262	25,176	138,100	5,858	515
	Kamwenge	120,906	154,422	26,239	34,280	339,191	11,237	363
	Kanungu	31,120	105,498	12,849	22,900	196,564	8,701	427

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	Kyenjojo	184,537	254,966	38,235	73,345	579,743	6,712	598
	Buliisa	34,801	43,326	3,884	849	99,932	18,542	115
	Ibanda	55,126	89,704	13,997	12,164	144,301	6,851	153
	Isingiro	180,345	221,491	30,298	7,552	203,564	13,905	1,370
	Kiruhura	342,315	188,686	28,017	3,967	142,459	4,719	235
<b>Sub Total</b>		<b>2,548,623</b>	<b>3,452,241</b>	<b>567,385</b>	<b>778,350</b>	<b>7,210,117</b>	<b>300,608</b>	<b>21,895</b>
<b>Uganda</b>		<b>11,434,795</b>	<b>12,344,407</b>	<b>3,410,371</b>	<b>3,184,297</b>	<b>37,443,881</b>	<b>1,458,253</b>	<b>348,314</b>

Source: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Uganda Bureau of Statistics

- **Price**

Prices for beef in the market range from between Ushs. 5,000 to 7000 per Kg (LWT) while carcass weight is between Ush. 12,000 to 17,000 per Kg.

- **Competition**

The competition in the sector is significant among small players but less so among large scale players. The dominance of small players in the sector has created several challenges for beef processors and packers including the irregular supply of livestock for slaughter and quality of beef produced. This creates opportunities for large scale players to address these supply challenges in the breeder and stocker sectors of the industry.

- **Marketing/Sales and Distribution**

Marketing and distribution at the breeder section of the value chain is relatively simple. Marketing is done through social networking. The method of marketing is effective as customers/clients i.e., beef processors and packers are relatively few in number. Therefore, elaborate and extensive distribution networks are unnecessary.

### Technical aspects and implementation timeline

- **Location**

FELITAI mixed Demonstration Farm Limited currently operates one (1) beef ranch located at Nakabira village, Kiige Parish, Kagumba sub-county, Kasolwe County, Kamuli District. The ranch is located on about 120 acres of land.

- **Existing infrastructure**

The beef sector has several infrastructure facilities including; five (5) valley dams, farm houses, a water system (including water pumps, pipes, tanks and watering troughs) and one (1) km of perimeter chain link. The sector also has an underground water source drilled by Ministry of Water and Environment to supply to the community though the farm is a beneficiary of the project since it was drilled within the beef sector.

On the dairy side, a reservoir of capacity 10,000 litres to supply water to the animals, a dairy cattle structure and the farm is fenced.

- **Projected volume of production**

Under this project, we envisage to increase our production capacity to 500 head of cattle sold per annum to stockers and finishers in the beef industry and about 12,000 litres of milk daily.

- ***Production process***

We maintain breeding herds that produce calves to be raised for market. Calves are maintained for six (6) to eight (8) months before weaning depending on assessed calf health indicators. After weaning, the weaned animals (weaners) are then maintained on the ranch for an additional six (6) to eight (8) months to achieve target (market desired) live weights before the animals are sold. Our breeding herds are maintained for five (5) to six (6) years before they are disposed and replaced.

The dairy cattle (Jersey/ Friesian) are to be inseminated with sexed semen and the calves kept for about 18-24 months to reach the conception weight and then inseminated.

- ***Breeding cattle stock and labour availability***

There are a number of ranches within Mbarara, Kiruhura, Lyantonde, Sembabule, Gomba Nakasongola-Nakaseke, Mubende districts that are able to supply the breeding stock required. Work at the ranch mainly requires semi-skilled and unskilled labour i.e., herdsmen and ranch hands to help with general repairs and maintenance works at the ranch. Labour is readily available within the locality of the ranch as well as in Lyantonde district and the rest of Uganda.

The dairy cattle are to be purchased from Jesa farm in Kiboga and some (Jersey) to be imported from South Africa as some farms in South Africa have been contacted and accepted to supply the dairy animals.

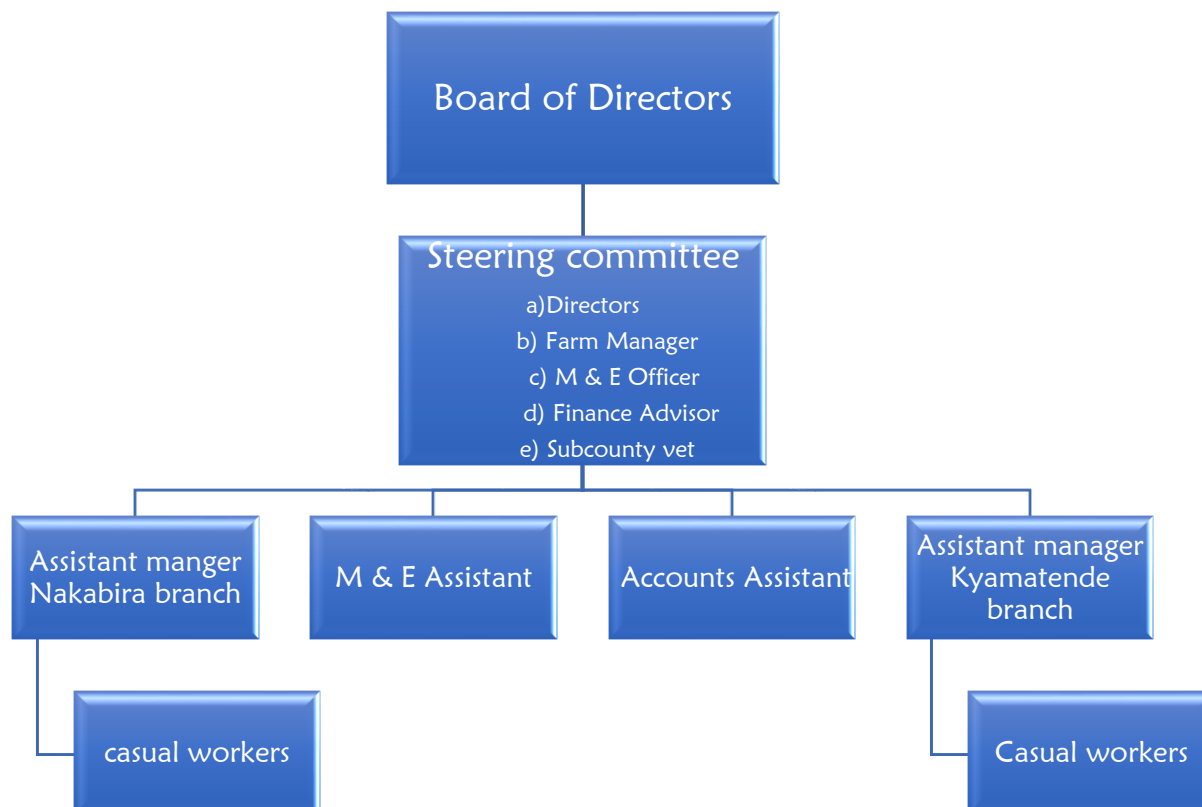
- ***Implementation timeline***

The project is expected to be executed over a five (5) year period.

### **Organisation structure and management**

FELITAI mixed Demonstration Farm Limited has a lean organisation structure. The organisation structure of FELITAI mixed Demonstration Farm Limited is led by the Board of Directors. The Board of Directors is composed of two (2) directors – Mr. Okurut Felix and Mrs. Acam Merab Okurut. Reporting to board is an operations manager. The operations manager is supported by a team of ranch employees including ranch supervisors, herdsmen and casual workers. In future, FELITAI mixed Demonstration Farm Limited intends to take on a finance and administrative manager to support the finance director with clerical and administrative activities of the company.

## Organogram and Schedule of Duties



FELITAI mixed Demonstration Farm Limited is a family business involved in livestock. The company was established by the Okurut family with the objective of commercialising their beef, dairy, Piggery and Poultry farming activities. The Okurut family has been in the cattle industry for over 5 years. FELITAI mixed Demonstration Farm Limited aims at providing the best breeds of Livestock through sustainable Climate Smart practices for adoption by the Communities.

### Director profiles:

Director	Position	Qualifications and experience
Mr. Okurut Felix 0782885377 Okurutfelix@gmail.com	Board chair and Managing Director- Manages Human Resource	Mr. Okurut Felix is a passionate farmer with over 20 years in public services spanning from Judiciary where he rose to head the Planning Function as a principal Economist before moving to Ministry of Agriculture, Animal Industry and Fisheries where he steered the M&E function leading to the development of the very fast M&E Plan. He also supported project development and Enforcement of Standards. In the Ministry of Finance, Planning and Economic Development, he is posted in the Tax Policy Department as Head of the Natural Resources. An economist and lawyer by profession with M.A Economic Policy and Planning, LLB (Muk) and a bachelor's degree in social

Director	Position	Qualifications and experience
		sciences ( Bias in Economics) with over 27 years of experience in farming including Crop Husbandry.
<b>Dr. Acham Merab</b> <b>0779324004</b> <b>merabacham@gmail.com</b>	<b>Technical Director Animal Health and Finance</b>	Dr. Merab Acham brings on board a vast range of capacities in Animal Health, Animal Production, Antimicrobial Resistance, One Health, and Food safety as a Veterinary Epidemiologist having worked in the public sector for over 5 years where she rose to the level of a Senior Veterinary Officer in the Ministry of Agriculture, Animal Industry and Fisheries, Uganda before moving to FAO as an Epidemiologist. As an Epidemiologist, she believes Epidemiology is the basic science for preventive medicine. She also worked as co-principal investigator under the AMR component in the Boosting Uganda's Investment in Livestock (BUILD-Uganda) project. She also provided technical support as a trainer of trainers (TOT) and examiner for the Qualifying the Workforce for AMR Surveillance in Africa and Asia (QWARS) project under ASLM. She holds a Bachelor's Degree in Veterinary Medicine (Makerere University), Post Graduate Diploma in Agriculture from Israel and a Master of Science in Epidemiology (University of Maastricht, Netherlands).
<b>Helen Atai</b> <b>0777460791</b>	<b>Director</b>	Helen Atai is an entrepreneur with over 30 years in farming. She is passionate with farming and adding value to products
<b>Mr Rubagumya John Paul (Esq)</b> <b>0783965953</b> <b>Jprubagumya@gmail.com</b>	<b>Legal Secretary</b>	Counsel John Paul Rubagumya, a seasoned lawyer with over 10 years of Experience in legal practice with expertise in Land Law and commercial transactions among others. He has been the company lawyer since its incorporation in 2016.

### Key Employees and their Roles

Director	Position	Qualifications and experience	Duties and Responsibilities
Mr. Kijanazo Bosco  0707884088  Kaijanazobosco@gmail.co	Farm Technical Coordinator FELITAI	Mr. Kijanazo Bosco brings a wealth of Experience in project Management in Kamuli having been instrumental in the implementation of the Heifer-Kijatowona Dairy Cooperative Project. He is an experienced Artificial Insemination Technician who will spur the farm breeding program and Pasture establishment. He holds a BSc (Hons) in Animal	<ul style="list-style-type: none"> <li>- Providing AI Services to the project beneficiaries at the Sub-county</li> <li>- Act as a liason Officer between the Community and the Farm</li> <li>- Advise the Farm and project Beneficiaries on the health and Nutrition of the animals</li> <li>- Carry out pregnancy Diagnosis for animals</li> </ul>

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Director	Position	Qualifications and experience	Duties and Responsibilities
		Health and Production of Busoga University and a Diploma in Animal Husbandry of Bukalasa Technical Institute.	<ul style="list-style-type: none"> <li>- Prepare quarterly reports and Plans for community and Farm AI Program</li> <li>- Spearhead the preparation of Project Beneficiaries (pasture management, shelter establishment, biogas installation)</li> </ul>
<b>Mr Okello Denis</b> <b>0778313154</b>	<b>Manager Nakabira and Animal Health attendant</b>	Mr Okello Denis's previous experience as a manager at Kapir Royal Farm makes him an Asset at the Farm. He Holds a National Certificate in Agriculture from Masulita Vocational Training Centre, Junior Technical Certificate from Kumi Technical Center.	<ul style="list-style-type: none"> <li>- Analyzing existing operations, crops, livestock, staff, and financial documents and recommending improvements.</li> <li>- Preparing farm plans and schedules for planting and harvesting and ensuring staff understand expectations.</li> <li>- Ensuring seeds, fertilizers, pesticides, acaricides and other supplies are regularly restocked.</li> <li>- Handling the marketing and sale of products produced on the farm</li> <li>- Ensuring all staff adheres to health and safety regulations.</li> <li>- Assisting with the recruitment and training of new staff members.</li> <li>- Collaborating with senior staff to prepare budgets and financial reports</li> </ul>
<b>Mr Batambuze Azed</b> <b>0752107658</b>	<b>Resident Manager Kyamatende Farm</b>	Mr Batambuze Azed bring on the farm Hands On experience in Dairy and Piggery Management.	<ul style="list-style-type: none"> <li>- Supervising staff</li> <li>- Monitoring Animal health</li> <li>- Ensure all animals are well fed</li> <li>- Facilitate and Record Sales of Animals</li> <li>- Maintain all farm records</li> <li>-</li> </ul>

Director	Position	Qualifications and experience	Duties and Responsibilities
<b>Mr Deogratiuous Opolot</b> <b>0785389620</b> <b>Dopolot8@g mail.com</b>	<b>M&amp;E Specialist</b>	Mr Opolot Deogratiuous <b>Agricultural Economist (MSc. BSc.)</b> experienced in program design, monitoring and evaluation, practical research and data management and policy analysis. Strongly motivated to enhance the targeting, efficiency, effectiveness, impact and accountability of development and research programs.	<b>As a leader of all Monitoring, Evaluation and Learning (MEL) activities, the M&amp; Specialist will;</b> <ul style="list-style-type: none"> <li>- Be Responsible for overseeing all daily work and routine data collection related to monitoring, evaluation, and reporting activities of the project,</li> <li>- Oversee the formative research, impact assessments, and ongoing learning activities to provide for scalability of the project</li> <li>- Prepare monthly, Quarterly, Semi Annual and Annual Physical and Financial Reports for the project to provide a basis for corrective action</li> <li>- Coordinate midterm review of the Project.</li> <li>- Plan and conduct routine assessments that track, analyze, and synthesize project data useful for program learning and adaptive management</li> </ul>

### Project costs and key financial projections

The project is expected to cost approximately **Ushs. 2 billion** as follows:

No.	Key activities	Estimated cost (USHS.)
1.	Increase in cattle stock	500,000,000
2.	Breeding (based on an artificial insemination program)	100,000,000
3.	Increasing land acreage for pasture establishment	120,000,000
4.	Increase in water capacity, distribution and solar powered irrigation	126,000,000
5.	Improvement in basic ranch employee living conditions	101,080,000
6.	Farm access management	234,813,000
7.	Purchase of heavy-duty Tractor and implements	230,000,000
8.	Purchase of forage choppers and other silage making machines	200,000,000

9.	Three (3) year working capital requirements	360,000,029
10.	Loan processing fees	24,784,370
	<b>Total</b>	<b>1,996,677,399</b>

Detailed budget breakdowns for each of these activities are provided in **Annexes 1 to 8** to this business plan.

Key financial projections over a fifteen (15) year period are as follows:

- **Revenue:** 29% annual average growth rate in revenue from Ushs 153 million at the end of year one (1) to Ushs 2.1 billion at the end of year fifteen (15).
- **Cashflow:** Average annual free cash flow of Ushs.303 million over the fifteen (15) year period.
- **Profitability:** 9% annual average growth rate in profits from Ushs 373 million at the end of the year four (4) to Ushs 889 million at the end of year fifteen (15) with an average annual net profit margin of 42% from year four (4). It is expected that the company will take three (3) years to break even and will make initial investment losses during project execution breaking even in year four (4).
- **Return on investment:** 9% annual average return on investment from year four (4).

### Risk and SWOT analysis summary

- **Risk analysis**

No.	Description of risk	Assessment of risk	Risk mitigation action
<b>Market risks</b>			
1.	Price instability for beef and milk	Significant	Planned mitigation strategies in the medium to long term and include: <ul style="list-style-type: none"> <li>a) Utilisation of fixed price and term contracts with large clients.</li> <li>b) Vertical integration along the beef and milk value chains by participating in higher sections of the value chain such as processing, packing and retail.</li> <li>c) Product diversification especially into beef and milk related products such as goat, bees and Agri-tourism etc.</li> </ul>
<b>Political and economic risks</b>			
2.	Double digit inflation in the initial three (4) years of investment i.e., CPI of more than 10%	Moderate	Planned mitigation strategies in the medium to long term and include: <ul style="list-style-type: none"> <li>a) Close monitoring of costs and incorporation of operational efficiencies to minimise costs including veterinary drug inventory management.</li> <li>b) Negotiation of favourable credit terms with suppliers to manage cashflows in years 2 and 3 of the project.</li> <li>c) Increase of scale through vertical integration as well as expansion of operation through increase of the number of ranches under our</li> </ul>



No.	Description of risk	Assessment of risk	Risk mitigation action
			management to improve economies of scale.
	<b>Other risks</b>		
3.	Endemic cattle disease such as Foot and Mouth	Significant	Planned mitigation strategies in the medium to long term include: a) Regular vaccination of breeding and inventory stock. b) Tight access and monitoring controls over ranch land to mitigate against illegal access and cattle trespass to control the spread of disease. c) Community outreach to improve animal husbandry practices to prevent and eliminate endemic diseases, poor pasture and water management in neighbouring communities.
4.	Severe droughts	Moderate	Planned mitigation strategies in the medium to long term include: a) Close monitoring of weather patterns and rainfall and adjusting stocking rates accordingly. b) Implementing of tight controls over water resources at the beef and dairy sectors during dry season. c) Addition of an effective solar water pump to pump water to the reservoir and other water tanks

- **SWOT analysis**

**Strengths**

- ✓ Access to a relatively significant size of land suitable for production at scale.
- ✓ Experienced management team.
- ✓ Strong organisation values.
- ✓ Good record keeping practices.
- ✓ Reliance on natural feeding for animals (grass fed).

**Weaknesses**

- ✓ Underutilised cattle stock capacity.

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- ✓ Lack of natural water sources and poor water distribution.
- ✓ Large tracts of uncleared (un-grazable) land.
- ✓ Capital constraints.
- ✓ Unreliable irrigation system..

**Opportunities**

- ✓ Favourable Government policy promoting commercial agriculture.
- ✓ Minimal competition in the commercial beef and dairy production space.
- ✓ Growing demand for organic beef in the developed world as a healthier source of protein.
- ✓ Growing number of beef processors and packers in Uganda requiring a sustainable supply of quality cattle input.

**Threats**

- ✓ Trespass on resources from neighbouring communities.
- ✓ Economic slowdown or downturn resulting from current international and regional political instability.
- ✓ Future outbreaks of foot and mouth disease.
- ✓ Climate change

**Socio-economic and environmental impact**

• **Employment**

This project is expected to more than double the number of job opportunities currently provided by FELITAI mixed Demonstration Farm Limited as follows:

Type of employment	Current	Projected	Percentage increase
Permanent employees	11	20	
Casual workers (average at any one time)	20	75	
<b>Total</b>	<b>31</b>	<b>95</b>	

In addition, there are other indirect employment opportunities that would be created through our operating and capital expenditure including:

- a) Supply of veterinary drugs and services
- b) Supply of farm tools, equipment and other supplies such as ear tags and cattle salt
- c) Supply of plumbing and electrical equipment
- d) Supply of breeding cattle stock
- e) Supply of transportation services
- f) Supply of food and other consumables such as office supplies
- g) Supply of fencing materials (chain-link, fence posts, gates, nails and barbed wire)
- h) Milk collection and distribution
- i) Demand for other day to day retail services by ranch workers (food, education, shelter, entertainment, clothing, communication, healthcare and other retail products and services)

- **Government revenue**

Our projections over a 15-year period of investment are that Government of Uganda will realise up to Ushs. 2 billion in corporate income tax from FELITAI mixed Demonstration Farm Limited.

- **Environmental impact**

Our practices will have minimal impact/contribution to greenhouse gas emissions given that we will be maintaining an optimum stocking rate of about one (1) cow per hectare and maintaining grass fed cattle. We expect our project to have a minimal environmental impact.

In addition, there is minimal soil erosion and controlled grazing since feed supplements are given to animals in their housing hence limiting movements. The grasslands also take in carbon dioxide hence minimising the levels of carbon emissions in the atmosphere.

### Final observations and recommendations

Overall, this project is worthwhile and is a good investment. The project is in line with FELITAI mixed Demonstration Farm Limited's strategic goals for growth and is in line with the Country's development goals under vision 2040. The project will also greatly benefit local communities. The following critical success factors are worth noting with regard to proposed financing for this project:

1. Adequate capital investment at initial outlay.
2. Sufficient grace period for debt servicing/repayment.
3. Affordable cost of capital.

We therefore recommend that this project be supported by UDB and FELITAI mixed Demonstration Farm Limited be granted a credit facility at the following terms:

Loan principle	Ushs.....
Annual interest rate	10% Fixed interest rate accrued on a monthly basis
Loan period	7 years
Grace period	29 months
Loan repayment intervals	Quarterly
Loan disbursement intervals	Quarterly
Number of drawdowns	12
Loan processing fees	Capitalised and disbursed as part of the first drawdown. We have assumed a 1% loan processing fee

Proposed loan disbursement/drawdown schedule and the amortisation and repayment schedules are included in **Annexes 9** and **10** to this business plan.

The beef value chain can be categorised into three (3) main sections:

1. **Breeders:** This is by far the largest section of the value chain and has the largest number of players. Most of the players here are small farmers maintaining 10 to 100 head of cattle. They sell their cattle on a subsistence basis as and when personal financial need arises such as for school fees, medical bills, home construction and repair etc. However, there are a number of commercial farmers in this section of the value chain as well, but they are few when compared to the small farmers. There are estimated to be about 165 large ranchers in Uganda and these account for 2% of the total cattle production in the Country.<sup>2</sup> Farmers sell their cattle in local cattle markets on designated market days within their community.
2. **Stockers and finishers:** This part of the value chain is mainly composed of cattle traders and commercial farmers engaged in bull fattening. Cattle traders focus on purchasing cattle from farmers

<sup>2</sup> Source: Beef sector mapping report 2015 – AgriProFocus Uganda

in the countryside at local markets and transport the purchased cattle to Kampala for sale to beef processors and packers. The commercial farmers engaged in this section purchase cattle from breeders (usually commercial farmers engaged in breeding or from small farmers through local markets) and then stock and fatten the animals to slaughter weight before selling them to the beef processors and packers.

- 3. Beef processors and packers:** This part of the value chain focuses on slaughter, beef processing and packing for local and export markets. This section of the value chain has relatively few players compared to other sections of the value chain.

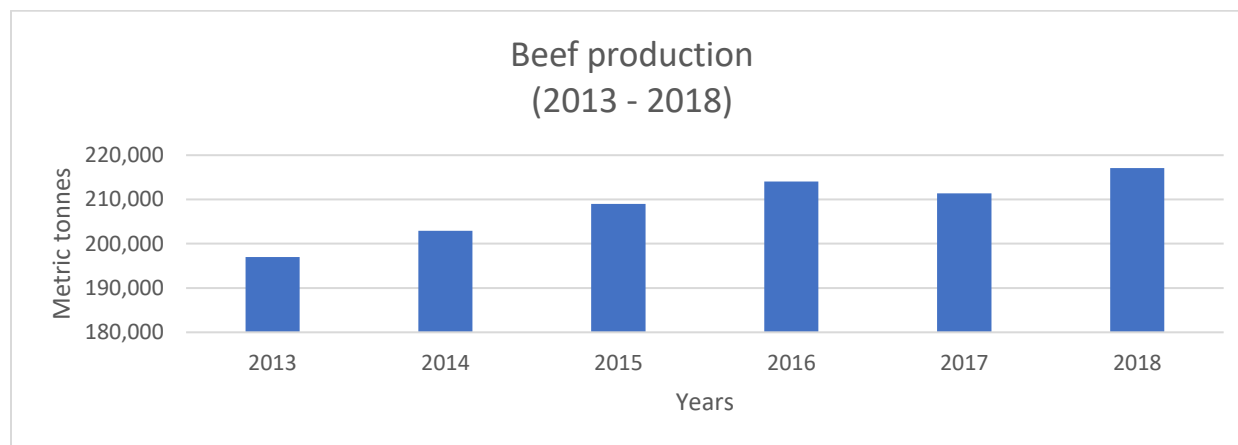
It should be noted that the beef sector also produces raw materials for the hides and skins sector which has a separate value chain.

FELITAI mixed demonstration farm ltd is a **breeder** and has currently been participating in the breeder section of the beef value chain, primarily selling to stockers and finishers. However, with planned expansion, the Company will be looking to engage in the stocker and finisher sections of the value chain.

The stocker/finisher section of the value chain has a lot of potential for business development as it still mainly characterised by middlemen cattle traders.

### Demand analysis

The consumption of beef in Uganda is estimated at about 6Kg/person/year. In 2014, beef consumption in Uganda was estimated to be 230,000 tonnes with about 2 million animals slaughtered.<sup>3</sup> Beef production in Uganda is largely market driven and therefore is a good indicator of market growth. The following chart shows the production of beef from 2013 to 2019<sup>4</sup>:



As of 2019, beef production stood at approximately 217,000 metric tonnes registering an average growth rate of 2% per year. Projecting this growth to 2022, Uganda should be producing 249,000 metric tonnes of beef per year in 2022.

Assuming that production is demand driven and that the growth in beef demand locally and internationally is consistent with the growth in production, the projected demand for beef in 2022, would approximate to 269,000 metric tonnes of beef creating a current market gap of 20,000 metric tonnes per year as illustrated below:



<sup>3</sup> Source: Beef sector mapping report 2015 – AgriProFocus Uganda

<sup>4</sup> Source: Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), and Uganda Bureau of Statistics

Projected beef production in 2022	249,000
Projected beef demand in 2022	269,000
Market gap	20,000

This gap is currently covered by beef imports from the East African region. It should be noted that production in the beef sector was hit hard by an outbreak of foot and mouth disease in the period 2019 to 2021, which restricted cattle trade and therefore, the market gap is most likely far greater than projected. We estimate that beef production/supply could have been reduced by 20 to 30% of projections and therefore realistically could be approximately, 174,000 to 200,000 tonnes in 2022. This would imply an actual market deficit of about 69,000 to 95,000 tonnes. With a projected population growth rate of 3.3% per year, the potential for growth in this sector is tremendous.

### Prices

As of 2022, current retail prices for beef on the market range from Ushs. 14,000 to Ushs. 15,000 per Kg. Prices for cattle for slaughter in the local market range from Ushs. 1,500,000 to Ushs. 1,800,000 depending on age, weight and body condition. Taking an average slaughter weight of 270Kgs per animal, the farm gate price per live weight (LWT) in Kgs is Ushs. 5,000 per Kg to Ushs. 5,600 per Kg.

### Competition

The beef value chain is mainly characterised by many informal players in the form of small farmers and cattle traders. There are still relatively few commercial players in the industry and therefore competition at commercial scale is low.

In addition, currently the major challenge for beef processors and packers is twofold:

1. Obtaining a sustainable supply of cattle for slaughter
2. Obtaining a sustainable supply of cattle providing quality beef

These challenges are mainly created by:

- a) A largely subsistence base of breeders who cannot sustain a large regular supply
- b) A small base of reliable and competent base of stockers and finishers.

There is therefore still opportunity in the industry in the areas of commercial scale breeding and stocking/finishing.

### Marketing/Sales and Distribution

Marketing and sales are done mainly through social networking at the stocker and breeder sections of the value chain. This is because the customers for livestock are relatively few i.e., customers mainly consist of beef processors and packers, therefore large distribution networks or marketing campaigns are not necessary at the breeder and stocker sections of the value chain. This is different from the beef processors and packers' section of the value chain which requires an extensive distribution network of local butcheries and retail outlets such as supermarkets and small grocers complemented by an extensive sales and marketing campaign to move beef products.

Dairy Sector chain

## Technical aspects

### Location

FELITAI mixed Demonstration Farm Limited currently manages one (1) ranch located at Nakabira village, Kagumba sub-county, Kamuli District. The farm is approximately 200 acres in area. The farm is located in the proximity of the R. Nile (700m) and Kasolwe Government Stock Farm.

The farm has access to the national grid for electricity. However, the ranch does not have access to the national water supply and relies on valley dams to access water and water pumped from R. Nile to the farm reservoir. As part of this project, FELITAI mixed demonstration farm ltd is looking to improve access by working with the Kamuli District to boost water access. in addition, the Company is looking to make significant investment in water distribution infrastructure to ensure better distribution of water at the farmer for irrigation, animal and human consumption – a critical success factor for farming.

### Existing infrastructure

The ranch has several infrastructure facilities including;

- Five (5) valley dams
- Two farm houses
- A reservoir
- Water system composed of a Water pump house, pipes, two (2) water tanks (@10,000 litre capacity), eight (8) water troughs, Two (2) petrol water pumps and a 100,000 litre reservoir.

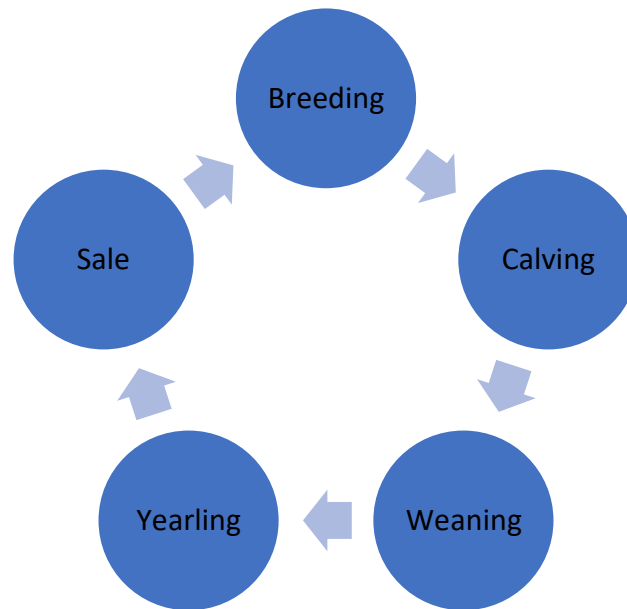
### Projected volume of production

Currently the ranch is able to sell 30 to 40 head of cattle per annum. Under this project, we envisage to increase our capacity to be able to sell 400 to 500 head of cattle per annum for beef and 60,000 litres of milk daily and the dairy animals will be disposed off after 5 years of milking.

### Production process

FELITAI mixed Demonstration Farm Limited runs a cow-calf operation. We maintain breeding herds and raise cattle for sale. Under this project, the cattle population (after acquisition) will be broken down into four (4) breeding herds of 150 cows each and a fifth herd of 200 cows bringing the total breeding cows to 800.

Our production cycle/process is as follows:



✓ **Breeding:**

Each herd will be enrolled in the breeding programme in a sequenced manner on a quarterly basis. We intend to deploy a mix of artificial insemination and natural service in our breeding programme. We expect a 70% conception rate from artificial insemination and will maintain breeding bulls per herd for finishing and bringing the overall conception rate to about 95%.

✓ **Calving:**

The gestation period for a cow is nine (9) months and therefore the time from successful conception to birth is nine (9) months. The cows will be closely monitored to ensure a successful gestation and birth. Calves are also closely monitored after birth. We target a successful birth rate of 95%.

✓ **Weaning**

Calves will be maintained for six (6) months before they are weaned off and young bulls are castrated. Once the calves are weaned off they are transferred to the weaners kraal for fattening and finishing for a period of six (6) additional months. At weaning, the breeding cows are then enrolled into another breeding cycle.

✓ **Yearling**

Once the calves are maintained for six (6) months after weaning, they are subsequently monitored on a bi-weekly basis for a period of one (1) to two (2) months until they gain an average target live weight of 250 kgs during the rainy season and 200 kgs during the dry season.

✓ **Sale**

Once minimum slaughter weights are attained, the calves are then sold off. At FELITAI mixed Demonstration Farm Limited we sell by live weight (LWT). We currently sell our steers at Ushs. 5,000 per Kg (LWT). However, under this project, we intend to improve our prices to an average of Ushs. 6,500 per Kg (LWT). This is based on the expectation that weaner heifers will be sold at Ushs. 8,000 per Kg (LWT) mainly to other breeders and steers will be sold to beef fatteners and processors at Ushs. 5,000 per Kg (LWT). This should give an average of Ushs. 6,500 per Kg (LWT) based on the assumption of a 50:50 ratio of heifers to steers at calving.

## Breeding cattle stock and labour availability

### ✓ Availability of breeding stock

There are a number of ranches within Mbarara, Kiruhura, Lyantonde, Sembabule, Gomba and Mubende districts that are able to supply the breeding stock required. Currently, the ranch maintains a breeding stock of about 150 to 210 head of cattle. Under this project, we therefore plan to invest in cattle restocking programme targeting 750 to 800 head of cattle.

### ✓ Labour availability

Work at the ranch mainly requires semi-skilled and unskilled labour i.e., herdsmen and ranch hands to help with general repairs and maintenance works at the ranch. Labour is readily available within the locality of the ranch as well as in Lyantonde district and the rest of Uganda. Under this project, we plan to increase our labour force from the current fifteen (15) employee positions to nineteen (19) employee positions as illustrated below:

	No. of employee	
	Current	Planned expansion under project
Managerial positions		
Managing Director	1	1
Finance Director	1	1
Operations Manager	1	1
Finance and Administration Manager	-	1
Sub-total (1)	<b>3</b>	<b>4</b>
Semi- skilled positions		
Ranch supervisor 1	1	1
Ranch supervisor 2	1	1
Sub-total (2)	<b>2</b>	<b>2</b>
Unskilled positions		
Ranch herdsmen	4	11
Ranch hands	1	2
Sub-total (3)	<b>5</b>	<b>13</b>
Grand total (1 to 3)	<b>10</b>	<b>19</b>



## Implementation

### Implementation time table

The project is expected to take three (3) years to implement from receipt of requested financing from the Uganda Development Bank (UDB). Key project activities and timelines are illustrated below:

No.	Activities	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>A. Increase in cattle stock</b>													
	Purchase of 524 animals for breeding stock	■											
<i>Herd 1 - Breeding cycle</i>													
	Artificial insemination (2 batches) (AI)		■						■				
	Calving (C)				■							■	
	Weaning (W)						■						
	Yearling (Y)									■			
	Sale (S)										■		
<i>Herd 2 - Breeding cycle</i>													
	Artificial insemination (2 batches) (AI)		■						■				
	Calving (C)				■							■	
	Weaning (W)						■						
	Yearling (Y)									■			
	Sale (S)										■		
<i>Herd 3 - Breeding cycle</i>													
	Artificial insemination (2 batches) (AI)			■						■			
	Calving (C)						■						
	Weaning (W)							■					
	Yearling (Y)										■		
	Sale (S)											■	
<i>Herd 4 - Breeding cycle</i>													
	Artificial insemination (2 batches) (AI)				■								
	Calving (C)						■						
	Weaning (W)								■				

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No.	Activities	Year 1				Year 2				Year 3			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	Yearling (Y)											Y	
	Sale (S)												S
	<b>Herd 5 - Breeding cycle</b>												
	Artificial insemination (2 batches) (AI)					AI							
	Calving (C)							C					
	Weaning (W)									W			
	Yearling (Y)												Y
<b>B.</b>	<b>Increasing grazeable land acreage</b>												
	Bush clearing												
	Paddock fencing and gating												
	Initial Weeding												
<b>C.</b>	<b>Increase in water capacity and distribution across the ranch</b>												
	Construction of valley dam												
	Construction of 10 pump houses and 4 tank bases												
	Installation of pipes, 8 water tanks @ 10,000 litres and 18 water troughs												
	Distribution of electricity to pump houses												
	Purchase and installation of 4 water pumps and 1 surface boosters												
<b>D.</b>	<b>Improvement in basic ranch employee living conditions</b>												
	Construction of 3 labour quarters												
	Upgrade of 4 labour quarters												
<b>E.</b>	<b>Land access management</b>												
	Installation of chain-link perimeter fencing and farm access gates												
	Opening up old ranch roads												
<b>F.</b>	<b>Purchase of motor vehicle</b>												
	Purchase of Toyota Hilux double cabin pickup												
<b>G</b>	<b>Execution of 3 year working capital</b>												
	Operational expenses												

\* We expect first cashflows in the last quarter of year three (3) of the project's implementation period.

In the third year of this project, we plan to fill the following currently vacant positions:

### Manpower schedule and remuneration

	No. of employee		Gross salary per year (USHS.) (Years 1 to 3 of project)
	Current	Planned expansion under project	
<b>Managerial positions</b>			
Managing Director	1	1	12,000,000
Finance Director	1	1	12,000,000
Operations Manager	1	1	18,000,000
Finance and Administration Manager*	-	1	18,000,000
Sub-total (1)	<b>3</b>	<b>4</b>	
<b>Semi- skilled positions</b>			
Ranch supervisor 1	1	1	8,571,400
Ranch supervisor 2	1	1	8,571,400
Sub-total (2)	<b>2</b>	<b>2</b>	
<b>Unskilled positions</b>			
Ranch herdsmen	9	11	2,333,300
Ranch hands	1	2	2,333,300
Sub-total (3)	<b>10</b>	<b>13</b>	
Grand total (1 to 3)	<b>15</b>	<b>19</b>	

\* FELITAI mixed Demonstration Farm Limited plans to take on a finance and administration manager in the third year of project implementation.

## Financial aspects

### Total project/Investment costs

The total costs over the three (3) years of the project are estimated at **Ushs. 3 billion** as detailed below:

No.	Key activities	Estimated cost (USHS.)
1.	Increase in cattle stock	1,062,000,000
2.	Breeding (based on an artificial insemination program)	120,000,000
3.	Increasing grazable land acreage	187,890,000

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4.	Increase in water capacity and distribution across the ranch	226,603,000
5.	Improvement in basic ranch employee living conditions	101,080,000
6.	Ranch access management	234,813,000
7.	Purchase of motor vehicle	188,800,000
8.	Three (3) year working capital requirements	884,361,029
9.	Loan processing fees	24,784,370
	<b>Total</b>	<b>3,030,331,399</b>

Detailed budget breakdowns for each of these activities is provided in **Annexes 1 to 8** to this business plan.

**Source of financing**

We intend to finance this project using a combination of debt finance and retained earnings over the three (3) years of the project as shown below:

Source of finance	Amount (Ushs.)
Debt finance	2,503,221,370
Internal finance – Equity	527,110,029
<b>Total</b>	<b>3,030,331,399</b>

The debt finance of approximately **Ushs 2.5 billion** will be used to finance project activities/items as follows:

Activities/items	Estimated cost (Ushs.)
Increase in cattle stock	1,062,000,000
Breeding (based on artificial insemination)	120,000,000
Increasing grazeable land acreage	187,890,000
Increase in water capacity and distribution across the farm and irrigation	126,603,000
Improvement in basic ranch employee living conditions	101,080,000
Farm Equipment ( Tractors, Trucks, Silage making machines)	334,813,000
Purchase of double cabin motor vehicle	188,800,000
Three (3) year working capital requirements	884,361,029
<b>Sub-total (A)</b>	<b>3,005,547,029</b>
Loan processing fees (1% of finance required) (B= Ax1%)	24,784,370
<b>Total (C=A+B)</b>	<b>3,030,331,399</b>

**Working capital**

The estimated working capital required for the three (3) years of project implementation is **Ushs. 884,361,029** is as follows:

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Category of operational expense	Estimated cost (Ushs.)
Employee remuneration	182,171,429
Weeding	82,530,000
Veterinary drugs and supplies	51,851,000
Fence and dip maintenance	40,698,571
<b>Total</b>	<b>357,251,000</b>

**Assumptions made in making financial projections**

Our projections have been made over a fifteen (15) year timeline and in determining these projections, we made the following assumptions:

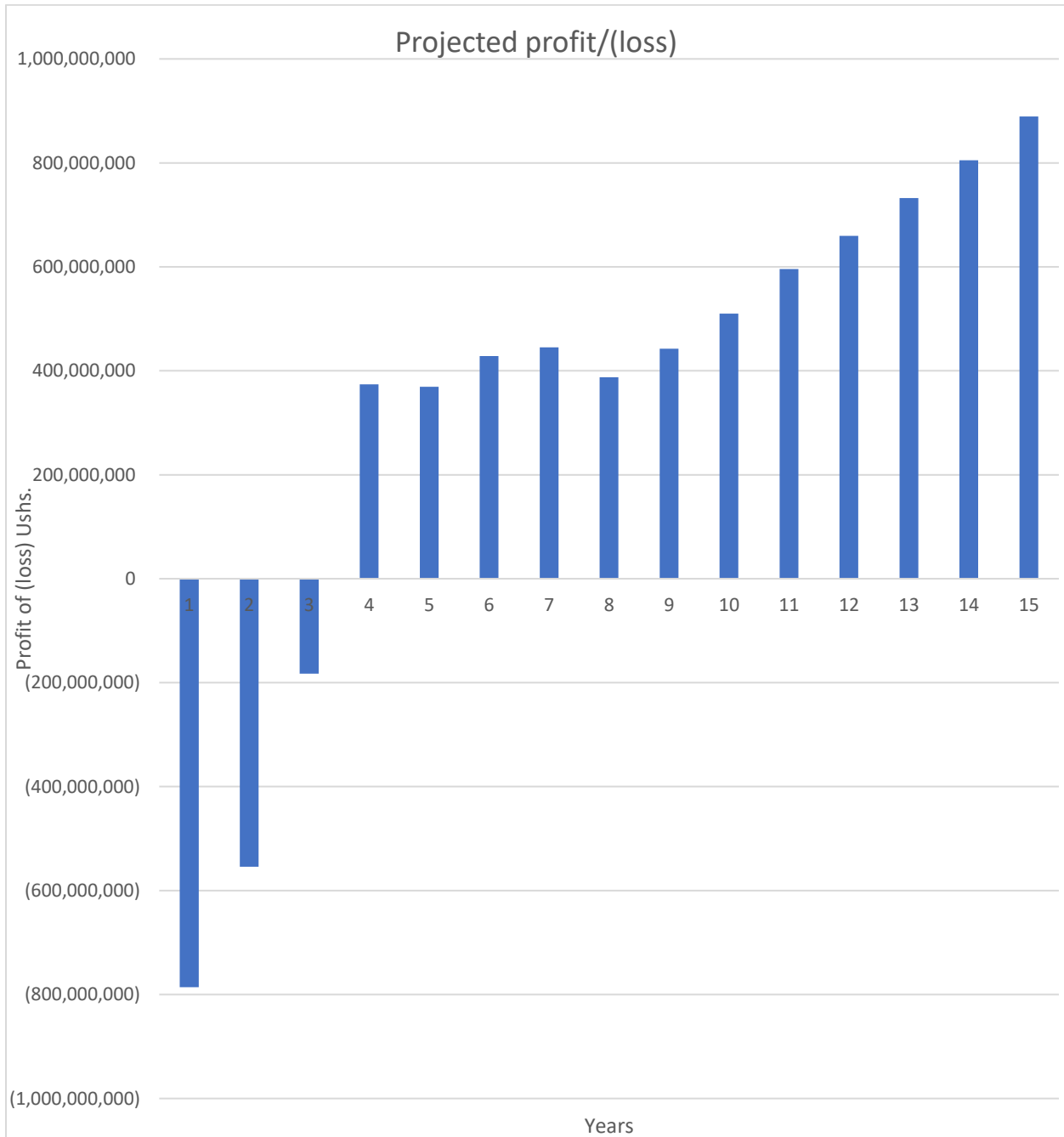
1. **Inflation:** We have assumed that inflation in Uganda will be maintained at an average of 6% per annum. This has been assumed in coming up with revenue and cost projections.
2. **Revenue:** We have assumed that the average price for cattle at time of the first sale at the end of year three (3) will be Ushs. 6,500 per Kg (live weight). We have also assumed that raw milk will be dropped off as a product in year 3, in order to focus the ranch on livestock productivity.
3. **Productivity:** We expect to improve average weight gains as a result of project interventions by 10% by the end of year 3. We have therefore made an assumption of an increase in revenue in year 4 by 10%.
4. **Cost efficiency:** We expect to reduce our operating costs up to 10% for years 4 to 6 as a result of cost efficiencies created from the implementation of this project. This has been considered for the following cost categories; veterinary drugs and supplies, weeding, farm repairs and maintenance among others.
5. **Salaries and wages:** We expect to keep salaries and wages fixed for the first four (4) years to allow for financial stability. They will then be revised and increased by 16% in year 5 and subsequently by 6% to cater for inflation.
6. **Biological assets (breeding livestock):** We have made the following assumptions with regard to biological assets;
  - ✓ Breeding cows will be replaced progressively from selected weaner heifers bred by the company;
  - ✓ 4% annual mortality rate for the breeding herd;
  - ✓ 5% annual miscarriage rate for in-calf cows and;
  - ✓ 5% annual mortality rate for calves (for the period from birth to sale/breeding);
  - ✓ Fair values of livestock will increase in line with an average annual inflation rate of 6%.
7. **Accounts receivable:** We have assumed accounts receivable at the end of the year will be 8% of annual sales. This is based on past experience.
8. **Accounts payable:** We have assumed accounts payable will be 21% of annual operating costs. We expect with operations at scale to negotiate for favourable credit terms from suppliers of key inputs such as veterinary drugs and supplies.

**Projected profit or loss**

Revenues are expected to grow from Ushs 153 million at the end of year one (1) of project implementation to Ushs 2.1 billion by the end of year fifteen (15) registering an average growth rate of 29% per annum over the fifteen (15) year period.

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Although the company is expected to incur losses initially during the project execution period and is expected to break even by the end of year three (3), profits (excluding unrealised fair value gains/(losses on biological assets) are projected to grow from Ushs 373 million at the end of year 4 to Ushs 889 million by the end of year 15 registering an average growth rate in profits of 9% over the eleven (11) year period after project completion.



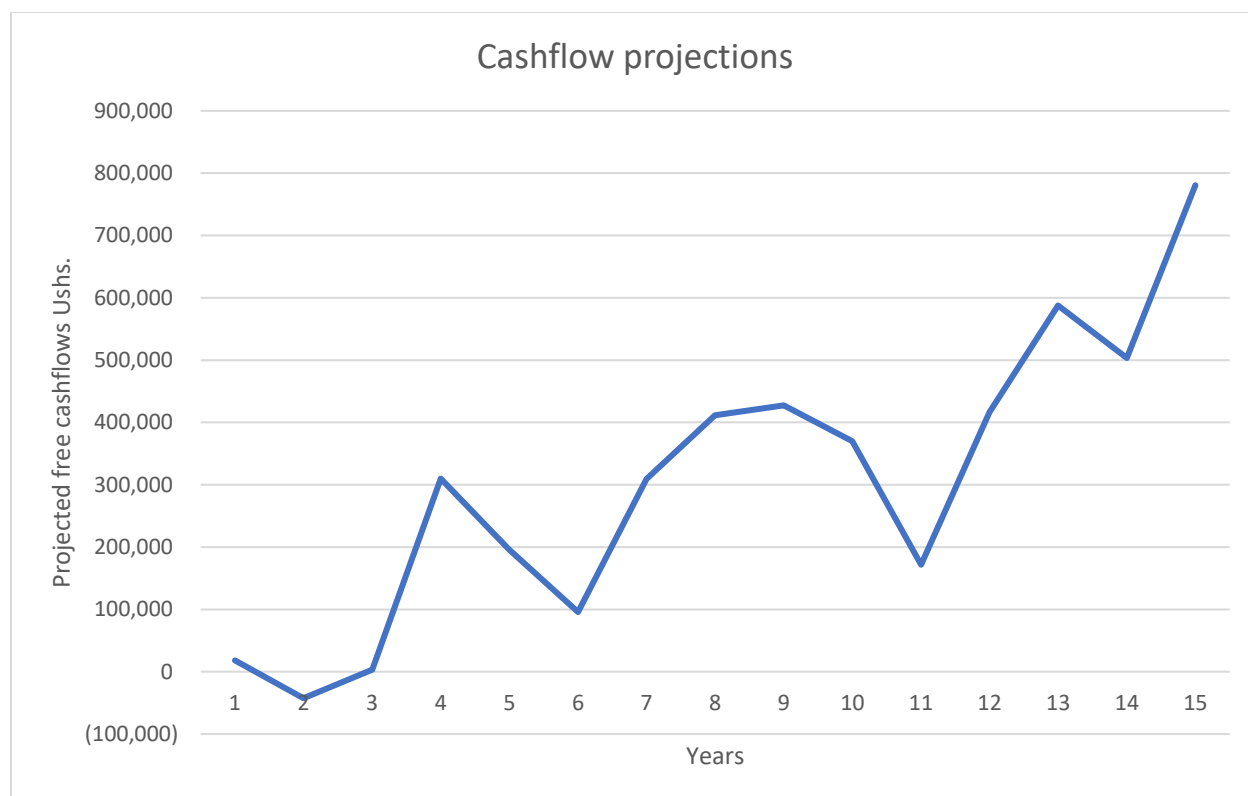
The detailed projected profit or loss for a fifteen (15) year period are shown below:

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**Business plan**

Years	Revenue	Costs	Tax	Profit/(Loss)
	Ushs.	Ushs.	Ushs.	Ushs.
1	152,738,329	(940,432,097)	-	(787,693,768)
2	161,902,628	(716,751,666)	-	(554,849,038)
3	521,106,862	(704,348,539)	-	(183,241,678)
4	1,139,994,242	(766,824,931)	-	373,169,311
5	1,208,393,897	(840,063,744)	-	368,330,153
6	1,280,897,530	(852,931,146)	-	427,966,385
7	1,357,751,382	(873,200,149)	(38,469,779)	446,081,454
8	1,439,216,465	(886,278,803)	(165,881,299)	387,056,363
9	1,525,569,453	(893,921,286)	(189,494,450)	442,153,717
10	1,617,103,620	(888,795,267)	(218,492,506)	509,815,847
11	1,714,129,838	(862,953,435)	(255,352,921)	595,823,481
12	1,816,977,628	(875,196,070)	(282,534,467)	659,247,091
13	1,925,996,285	(880,128,657)	(313,760,289)	732,107,340
14	2,041,556,063	(891,172,076)	(345,115,196)	805,268,791
15	2,164,049,426	(893,717,902)	(381,099,457)	889,232,067

**Projected cash flow**

The company is expected to realise average annual free cash flows of Ushs. 303 million over the fifteen (15) year period growing from Ushs. 18 million in year 1 to Ushs. 780 million in year 15.



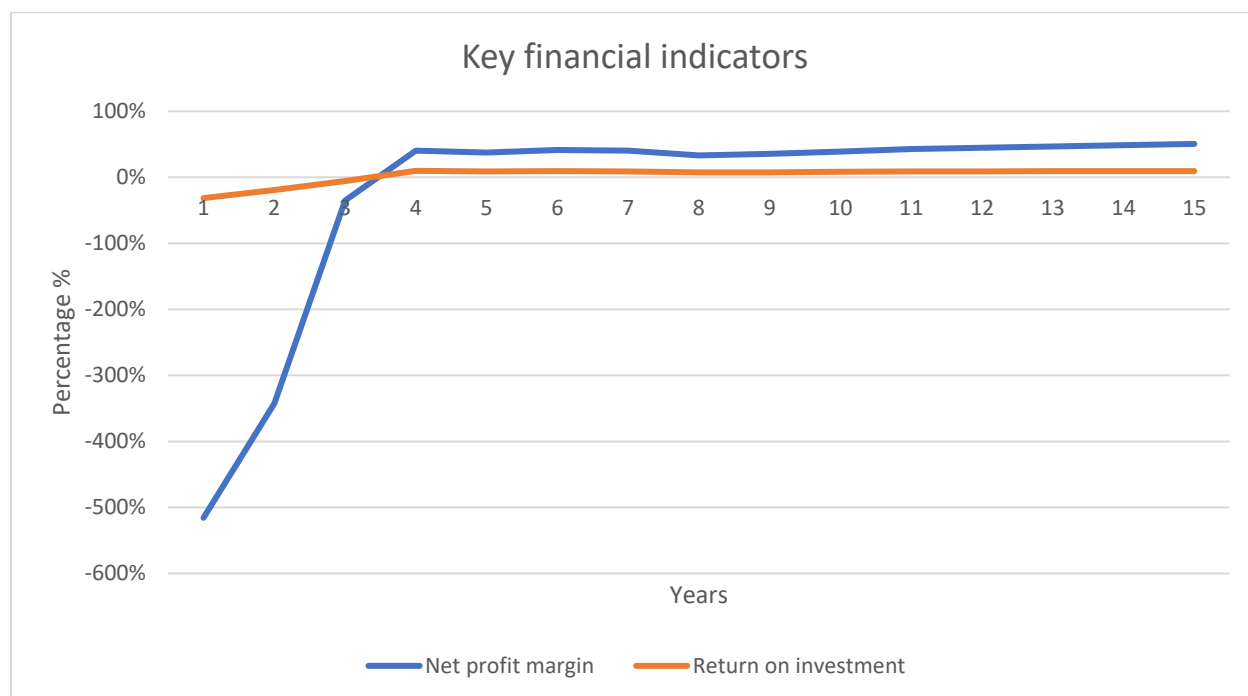
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The detailed projected cashflows for a fifteen (15) year period are shown below:

Year	Cash balance b/f	Revenue	Opex (including tax and dividend payments)	Capex	Debt receipt and servicing	Free cashflow	Cash balance c/f
	Ushs'000	Ushs'000	Ushs'000	Ushs'000	Ushs'000	Ushs'000	Ushs'000
1	50,000	152,738	(616,887)	(1,813,296)	2,295,870	18,426	68,426
2	68,426	161,903	(303,147)	-	98,704	(42,540)	25,885
3	25,885	521,107	(303,681)	(6,615)	(208,453)	2,358	28,243
4	28,243	1,139,994	(335,495)	(73,087)	(422,800)	308,611	336,854
5	336,854	1,208,394	(410,691)	(180,000)	(422,800)	194,903	531,758
6	531,758	1,280,898	(421,688)	(342,071)	(422,800)	94,339	626,096
7	626,096	1,357,751	(446,989)	(180,000)	(422,800)	307,962	934,059
8	934,059	1,439,216	(512,278)	(92,271)	(422,800)	411,867	1,345,926
9	1,345,926	1,525,569	(668,118)	(8,041)	(422,800)	426,611	1,772,537
10	1,772,537	1,617,104	(721,865)	(103,676)	(422,800)	368,762	2,141,299
11	2,141,299	1,714,130	(782,806)	(338,112)	(422,800)	170,412	2,311,711
12	2,311,711	1,816,978	(853,525)	(125,355)	(422,800)	415,298	2,727,009
13	2,727,009	1,925,996	(916,597)	-	(422,800)	586,599	3,313,608
14	3,313,608	2,041,556	(985,866)	(130,888)	(422,800)	502,001	3,815,610
15	3,815,610	2,164,049	(1,057,548)	(9,773)	(317,100)	779,628	4,595,238

**Key financial indicators:**

Over the fifteen (15) year period, we expect to make an average net profit margin and return on investment of 42% and 9% from year 4 respectively.





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Details of net profit margin and return on investment over the fifteen (15) year period are shown below:

Year	Net profit margin	Return on Investment
1	-516%	-32%
2	-343%	-19%
3	-35%	-6%
4	40%	10%
5	37%	9%
6	41%	9%
7	40%	9%
8	33%	7%
9	36%	8%
10	39%	8%
11	43%	9%
12	45%	9%
13	47%	9%
14	49%	9%
15	51%	10%

## Risk analysis

No.	Description of risk	Assessment of risk	Risk mitigation action
	<b>Market risks</b>		
1.	Price instability for beef	Significant	Planned mitigation strategies in the medium to long term and include: a) Utilisation of fixed price and term contracts with large clients. b) Vertical integration along the beef and milk value chains by participating in higher sections of the value chain such as processing, packing and retail. c) Product diversification especially into ranch related products such as goat, bees and Agri-tourism etc.
	<b>Political and economic risks</b>		
2.	Double digit inflation in the initial three (3) years of investment i.e., CPI of more than 10%	Moderate	Planned mitigation strategies in the medium to long term and include: a) Close monitoring of costs and incorporation of operational efficiencies to minimise cost including veterinary drug inventory planning. b) Negotiation of favourable credit terms with suppliers to manage cashflows in years 2 and 3 of the project. c) Increase of scale through vertical integration as well as expansion of operation through increase of the number of

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No.	Description of risk	Assessment of risk	Risk mitigation action
			ranches under our management to improve economies of scale.
	<b>Other risks</b>		
3.	Endemic cattle disease such as Foot and Mouth	Significant	Planned mitigation strategies in the medium to long term include: a) Regular vaccination of breeding and inventory stock of cattle. b) Tight access and monitoring controls over ranch land to mitigate against illegal access and cattle trespass to control the spread of disease. c) Community outreach to improve animal husbandry practices to prevent and eliminate endemic diseases, poor pasture and water management in neighbouring communities.
4.	Severe droughts	Moderate	Planned mitigation strategies in the medium to long term include: a) Close monitoring of weather patterns and rainfall and adjusting stocking rates accordingly. b) Implementing of tight controls over water resources at the ranch during dry season. c) Liaison with community and district officials to fence off Kyemamba community valley dam and ensure it has proper access to preserve water catchment and retention.

## SWOT Analysis

### Strengths

- ✓ **Access to a relatively significant size of land (Ranch 16A) suitable for production at scale:** Ranch 16A is located on approximately two (2) square miles (1,285 acres) of land in Lyantonde district – Ranch 16. Large acreage is a key critical success factor for ranching on a commercial scale. It should be noted that our business model focusses on the production of natural grass-fed cattle which require significant grazing land.
- ✓ **Experienced management team:** The Okurut family has over 30 years’ experience in cattle farming. In addition, David Mugaju has over 10 years’ experience providing professional business advisory services. We also have an experienced operations manager with over 20 years offering agricultural extension services.
- ✓ **Strong organisation values:** We at FELITAI mixed Demonstration Farm Limited have very strong business values including integrity, diligence, discipline, commitment to improved product quality and learning, respect for the rule of the law and concern for our communities and the environment.

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- ✓ **Good record keeping practices:** At FELITAI mixed Demonstration Farm Limited we believe that if you can't measure it, you can't manage it. We keep good records of our cattle, finances, human resource and legal undertakings.
- ✓ **Reliance on natural feeding for animals (grass fed):** At FELITAI mixed Demonstration Farm Limited, we do not supplement feeding with grain feeds our animals are 100% grass fed and therefore we provide a good source of organic beef.

### Weaknesses

- ✓ **Underutilised cattle stock capacity:** Currently, our managed ranch is understocked with between 150 to 200 head of cattle on average. This is far below the optimum capacity of 500 to 800 head of cattle based on a stocking rate of one (1) cow per hectare. Therefore, we are currently underutilising our asset capacity and are earning far below our potential in terms of possible returns on assets. This compromises our ability to sustain a large supply of cattle and to enjoy costs savings arising from economies of scale.
- ✓ **Lack of natural water sources and poor water distribution:** Ranch 16 is located in an area without natural water sources such as a lake or river and such heavily relies on water harvest methods such as valley dams. In addition, current valley dams are not appropriately located and therefore make grazing inefficient because some of the herds have to move long distances to access water at the ranch. As a result, some grazing areas are not effectively utilised.
- ✓ **Large tracts of uncleared (un-grazable) land:** We still have a sizeable amount of land at Ranch 16A with uncleared bush and thicket representing about 42% of ranch land. This also limits the livestock capacity that can be maintained at the ranch.
- ✓ **Capital constraints:** Given our ambitions to expand our operational capacity/scale of production, FELITAI mixed Demonstration Farm Limited is faced with capital constraints. Currently, 93% of capital is invested in property, farm equipment and livestock with a carrying book value of about Ushs. 657 million and approximately Ushs. 50 million in working capital. We are therefore not able to raise the initial outlay of approximately Ushs. 3 billion required for this project internally within the Company's current resources.
- ✓ **Poor accommodation for ranch workers:** One of the critical success factors for successful commercial agriculture, is the availability of steady supply of reliable labour. Commercial ranching in particular requires full time ranch herdsman to execute the day-to-day animal husbandry labour intensive activities on the ranch. As such, you need to be able to accommodate the herdsman on the ranch. In order to do this, you must be able to provide decent accommodation. Currently, due to capital constraints, we have not been able to provide such accommodation and this has affected our ability to attract, motivate and retain good quality herdsman.

### Opportunities

- ✓ **Favourable Government policy promoting commercial agriculture:** Current Government policy is to encourage Ugandans to move away from subsistence farming to commercial agriculture and as such has put in place measures and programmes to support this including support to the Uganda Development Bank and Uganda Development Corporation. As this is in line with our ambitions, this presents an opportunity to access relatively affordable finance on terms that are favourable for commercial agriculture in order to resolve capital constraints at FELITAI mixed Demonstration Farm Limited.
- ✓ **Minimal competition in the commercial ranching space:** As previously highlighted, the cattle industry at the primary production levels is mainly dominated by small informal producers. Therefore,

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the number of commercial players is still relatively few and as such competition is low. This is likely to still remain the case in the medium term due to constraints on access to land large enough to scale up production.

- ✓ **Growing demand for organic beef in the developed world as a healthier source of protein:** There has been an increasing push for change in eating habits across the world. As the world looks to fighting non-communicable diseases such as diabetes and hypertension which are mainly related to lifestyle and nutrition, people are being encouraged to exercise more and eat better. In the developed world, closer attention is being given to the quality of animal proteins such as beef, chicken and pork and emphasis is moving away from grain fed animals to more naturally fed animals. This is because meat from naturally fed animals is healthier. Therefore, in future, there is likely to be more demand for grass fed organic beef. This organic beef is already fetching premium prices in developed markets such as the USA (US\$9.26 per lb), Canada (CAD7 per lb) the UK (£13 per Kg), and the EU (€5.6 per Kg) for the cheapest cuts.
- ✓ **Growing number of beef processors and packers in Uganda requiring a sustainable supply of cattle input:** In line with Government policy to add value to agricultural products through agro-processing, we have seen the increase of the number of beef processors and packers in the country. One of the challenges these beef processors have been facing is the establishment of a reliable supply of cattle for slaughter. There is therefore a growing need for suppliers who can provide a sustainable supply of cattle.

### Threats

- ✓ **Trespass on ranch resources from neighbouring communities:** We have been experiencing the challenge of trespass on ranch land by neighbouring communities in search of pasture for their cattle, firewood for cooking and charcoal and fence posts for farm perimeters. Land trespass creates several challenges including increased risk of diseases of infectious cattle disease, interruption of pasture planning and grazing systems (as pasture reserves are invaded) as well as water shortages.
- ✓ **Economic slowdown or downturn resulting from current international and regional political instability:** Although Uganda has enjoyed relative political and social stability for the last 35 years, recent international and regional geo-political events, in Ukraine and the Eastern Democratic Republic of Congo if not deescalated are likely to have adverse economic impact on Uganda and the East African region as a whole. A continued slowdown in economic growth or even at the worst an economic recession, is likely to negatively impact our projections.
- ✓ **Future outbreaks of foot and mouth disease:** In the last five (5) years, we have had several outbreaks of foot and mouth disease (FMD). These have led to Government imposed lockdowns on the cattle industry. An outbreak of FMD and subsequent lockdowns (if any), would negatively impact cattle restocking efforts as well as cattle sale projections.
- ✓ **Climate change:** We are experiencing changes in rainfall patterns in Uganda. Rainfall seasons are increasingly becoming difficult to predict. Given that adequate supply of water is a critical component for successful commercial farming, significant reductions in rainfall quantities or erratic rainfall patterns could negatively impact our projections under this project.

## Socio-Economic aspects

### Employment

This project is expected to more than double the number of job opportunities currently provided by FELITAI mixed Demonstration Farm Limited as follows:

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Type of employment	Current	Projected	Percentage increase
Permanent employees	14	19	36%
Casual workers (average at any one time)	15	75	300%
<b>Total</b>	<b>29</b>	<b>94</b>	<b>31%</b>

In addition, there are other indirect employment opportunities that would be created through our operating and capital expenditure including:

- a) Supply of veterinary drugs and services
- b) Supply of farm tools, equipment and other supplies such as ear tags and cattle salt
- c) Supply of plumbing and electrical equipment
- d) Supply of breeding cattle stock
- e) Supply of transportation services
- f) Supply of food and other consumables such as office supplies
- g) Supply of fencing materials (chain-link, fence posts, gates, nails and barbed wire)
- h) Milk collection and distribution
- i) Demand for other day to day retail services by ranch workers (food, education, shelter, entertainment, clothing, communication, healthcare and other retail products and services)

Although the employment effects of these activities, cannot easily be quantified. There is no doubt that the impact will be significant. Over the years we have seen development of Kyemamba Trading Centre from a small trading centre with grass thatched shops and bars to a bustling trading centre with various shops, police post, cattle market, milk collection centres, schools and a health centre. We believe that a significant factor to this growth has been continued investment by the Okurut family in Ranch 16.

**Government revenue**

The project is expected to significantly increase Government revenue at the local and national level through various tax revenue types, local service tax, PAYE and Corporate income tax. Our projections over a 15-year period of investment are that Government of Uganda will realise up to Ushs.2.1 billion in corporate income tax.

**Environmental aspects**

**Key aspects of environmental concern**

Our practices will have minimal impact/contribution to greenhouse gas emissions given that we will be maintaining an optimum stocking rate and maintaining grass fed cattle. We expect our project to have a minimal environmental impact.

## Annexes

### Annex 1: Increase in cattle stock

	Herd 1	Herd 2	Herd 3	Herd 4	Herd 5	Total
Cows*	49	93	150	150	84	526
Unit cost (Ushs.)	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	
<b>Total cost (Ushs.) (A)</b>	<b>98,000,000</b>	<b>186,000,000</b>	<b>300,000,000</b>	<b>300,000,000</b>	<b>168,000,000</b>	<b>1,052,000,000</b>
Bulls	-	1	1	-	-	2
Unit cost (Ushs.)	-	5,000,000	5,000,000	-	-	
<b>Total cost (Ushs.) (B)</b>	<b>-</b>	<b>5,000,000</b>	<b>5,000,000</b>	<b>-</b>	<b>-</b>	<b>10,000,000</b>
<b>Grand total (C=A+B)</b>	<b>98,000,000</b>	<b>191,000,000</b>	<b>305,000,000</b>	<b>300,000,000</b>	<b>168,000,000</b>	<b>1,062,000,000</b>

\* We are targeting two (2) year old weaner heifers.

\*\* We are targeting two (2) to three (3) year old bulls.

### Annex 2: Breeding

	No. of cows	Rate per cow (Ushs.)	Total (Ushs.)
Artificial insemination	800	50,000	40,000,000
		Number of years	3
		<b>Total for 3 years</b>	<b>120,000,000</b>

### Annex 3: Increasing grazeable land coverage

Bush clearing				
		Acres	Unit cost per acre	Total
Casual labour		538	250,000	134,500,000
<b>Sub-total (1)</b>				
Paddocking				
	Unit	No. of Unit	Unit cost per Km	Total
Barbed wire	Rolls	86	140,000	12,040,000
Nails	Kgs	115	6,000	690,000
Casual labour - fence	Posts	21,400	700	14,980,000
Casual labour - hedge (including purchase and transport)	Metres	21,400	1,200	25,680,000
<b>Sub-total (2)</b>				<b>53,390,000</b>
<b>Grand total</b>				<b>187,890,000</b>

## Annex 4: Increase in water capacity and distribution

Item	Notes	Budget (Ushs.)
Valley dam construction	1	7,000,000
Pipes and fittings	2	47,747,000
Distribution of electricity to pump houses	3	13,592,500
Water pumps and boosters	4	65,047,500
Water pump housing	5	4,616,000
Water troughs	6	13,600,000
Tanks	7	10,000,000
<b>Total</b>		<b>126,603,000</b>

### Notes to the budget for increase in water capacity and distribution

#### Note 1: Valley dam construction ( Desilting)

Specifications	Unit	Quantity	Unit price	Budget (Ushs.)
Transport for arm digger	Round trip	1	2,000,000	2,000,000
Hire of arm digger including fuel	Days	2	1,500,000	3,000,000
<b>Total</b>				<b>5,000,000</b>

#### Note 2: Pipes and fittings

Specifications	Unit	Quantity	Unit price (Ushs.)	Amount (Ushs.)
HDPE Pipe 50mm PN10	Metres	3,247	4,500	14,611,500
HDPE Pipe 32mm PN 10	Metres	5,000	2,800	14,000,000
50mm PE straight tee	Pieces	36	30,000	1,080,000
50mm PE Male adaptor Pn.16	Pieces	36	30,000	1,080,000
Non return valve 1.5"	Pieces	4	90,000	360,000
Long screw 1"	Pieces	8	7,000	56,000
Gate valves	Pieces	9	45,000	405,000
32mm PE Tee PN.16	Pieces	8	10,000	80,000
Thread Tape big	Pieces	38	2,000	76,000
Silicon	tins	5	10,000	50,000
Gi reducing Bush 1"x3/4"	Pieces	17	4,000	68,000
Ball valve 3/4"	Pieces	17	30,000	510,000
Trenching labour	Metres	8,247	1,500	12,370,500
Technical labour	Days of labour	30	100,000	3,000,000
<b>Total</b>				<b>47,747,000</b>

**Note 3: Distribution of electricity to pump houses**

Specifications	Unit	Quantity	Unit price (Ushs.)	Amount (Ushs.)
Armoured cable from head office to Friesian dam	Meters	918	14,000	12,852,000
Armoured cable from Friesian section to Rwita dam	Meters	995	14,000	13,930,000
Armoured cable from Friesian section to Boran dam	Meters	1,482	14,000	20,748,000
Connector kits	pcs	7	70,000	490,000
Labour for trenching	Meters	3,395	1,500	5,092,500
Technical labour	Days of labour	4	120,000	480,000
<b>Total</b>				<b>53,592,500</b>

**Note 4: Water pumps and boosters**

Specifications	Unit	Quantity	Unit price (Ushs.)	Amount (Ushs.)
Submersible water pump with accessories (hydro electricity)	Pump and accessories	4	11,311,850	45,247,400
Submersible water pump solar with accessories - battery, panels and converter to supply	Pump and accessories	1	19,800,100	19,800,100
<b>Total</b>				<b>65,047,500</b>

**Note 5: Water pump housing**

Specifications	Unit	Quantity	Unit price (Ushs.)	Amount (Ushs.)
Bricks	Bricks	2,400	300	720,000
Cement	Bags	5	34,000	170,000
Sand	Trips	5	80,000	400,000
Gravel	Trips	5	150,000	750,000
Transport for poles (8 poles)	Trips	1	40,000	40,000
Iron sheets	Sheets	8	30,000	240,000
Roofing nails	Kgs	8	7,000	56,000
Timber nails - 5 inch	Kgs	4	6,000	24,000
Polythene for foundation (DPC 20 metres)	Roll	1	50,000	50,000
Payan	Roll	1	30,000	30,000
Paint	Tins	2	68,000	136,000
Labour	Lumpsum labour casual wages per house	4	500,000	2,000,000
<b>Total</b>				<b>4,616,000</b>



**Note 6: Water troughs**

Specifications	Unit	Quantity	Unit price (Ushs.)	Amount (Ushs.)
Hexagonal metallic water troughs	water trough	17	1,300,000	22,100,000
Transport	Trip	1	1,500,000	1,500,000
				<b>23,600,000</b>

**Note 7: Water tanks**

Specifications	Unit	Quantity	Unit price (Ushs.)	Amount (Ushs.)
10,000 litre plastic water tanks	Tank	8	2,200,000	17,600,000
Transport	Trip	3	800,000	2,400,000
				<b>20,000,000</b>

Annex 5: Access roads

Specifications	Unit	Quantity	Unit price	Budget (Ushs.)
Transport for grader	Round trip	1	3,000,000	3,000,000
Hire of grader including fuel	Days	3	3,000,000	9,000,000
Culverts	Culvert	12	200,000	2,400,000
<b>Total</b>				<b>14,400,000</b>

Annex 6: Labour quarters

	Note	Unit cost (Ushs)	Units	Total cost (Ushs.)
Preliminary works	1	394,000	7	2,758,000
Employee housing	2	8,329,000	7	58,303,000
VIP latrines	3	5,717,000	7	40,019,000
<b>Total</b>		<b>14,440,000</b>		<b>101,080,000</b>

**Notes to the budget for construction of labour quarters**

**Note 1: Budget estimates for preliminary works**

Item required per site	Number of items	Unit cost per item (Ushs.)	Cost (Ushs.)
Wheel burrow	2	120,000	240,000
Spade	2	14,000	28,000
Pick axe	2	14,000	28,000
Hand Hoe	2	14,000	28,000
50 litre water drum	1	70,000	70,000
<b>Total</b>			<b>394,000</b>

**Note 2: Budget estimates for construction of employee housing**

Building stage	Cost (Ushs.)
Substructures	1,978,300
RC Frame	788,000
Walling	1,149,700
Roofing and Rainwater disposal	866,000
Doors	825,500
Windows	940,000
External Finishes	373,500
Internal Finishes	808,000
Labour	600,000
<b>Total</b>	<b>8,329,000</b>

**Note 3: Budget estimates for construction of VIP latrines**

Building stage	Cost (Ushs.)
Substructures	1,876,000
RC Frame	505,000
Walling	953,000
Roofing and rainwater disposal	448,000
Doors	576,000
External finishes	347,000
Internal finishes	612,000
Labour	400,000
<b>Total</b>	<b>5,717,000</b>

Annex 7: Motor vehicle

Type of vehicle	Cost estimate (Ushs.)
Double cabin pick-up truck (4WD)	188,800,000

## Annex 8: Working capital requirements

Item	Estimated cost (Ushs.)			
	Year 1	Year 2	Year 3	Total
<b>Working capital requirements to be financed by loan facility from UDB</b>				
Operations manager salary	18,000,000	18,000,000	18,000,000	54,000,000
Vet drugs and supplies	48,000,000	40,704,000	43,147,000	131,851,000
Weeding	171,400,000	-	-	171,400,000
<b>Sub-total (1)</b>	<b>237,400,000</b>	<b>58,704,000</b>	<b>61,147,000</b>	<b>357,251,000</b>
<b>Working capital requirements to be financed by internal sources</b>				
Managing Director salary	12,000,000	12,000,000	12,000,000	36,000,000
Finance Director salary	8,400,000	8,400,000	8,400,000	25,200,000
Finance and administration manager salary	-	-	18,000,000	18,000,000
Other salaries and wages	49,657,143	49,657,143	49,657,143	148,971,429
Weeding	-	51,420,000	25,710,000	77,130,000
Fence and dip maintenance	3,000,000	12,000,000	12,600,000	27,600,000
Road maintenance	1,500,000	-	1,500,000	3,000,000
Vehicle repairs and maintenance	4,000,000	4,200,000	4,410,000	12,610,000
Vehicle fuel	47,040,000	24,192,000	25,401,600	96,633,600
Other operating costs	26,000,000	27,300,000	28,665,000	81,965,000
<b>Sub-total (2)</b>	<b>151,597,143</b>	<b>189,169,143</b>	<b>186,343,743</b>	<b>527,110,029</b>
<b>Grand total (1+2)</b>	<b>388,997,143</b>	<b>247,873,143</b>	<b>247,490,743</b>	<b>884,361,029</b>

This breakdown does not include operating expenditure on artificial insemination, bush clearing and paddock fencing. These have been analysed separately in annexes 2 and 3 respectively.

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