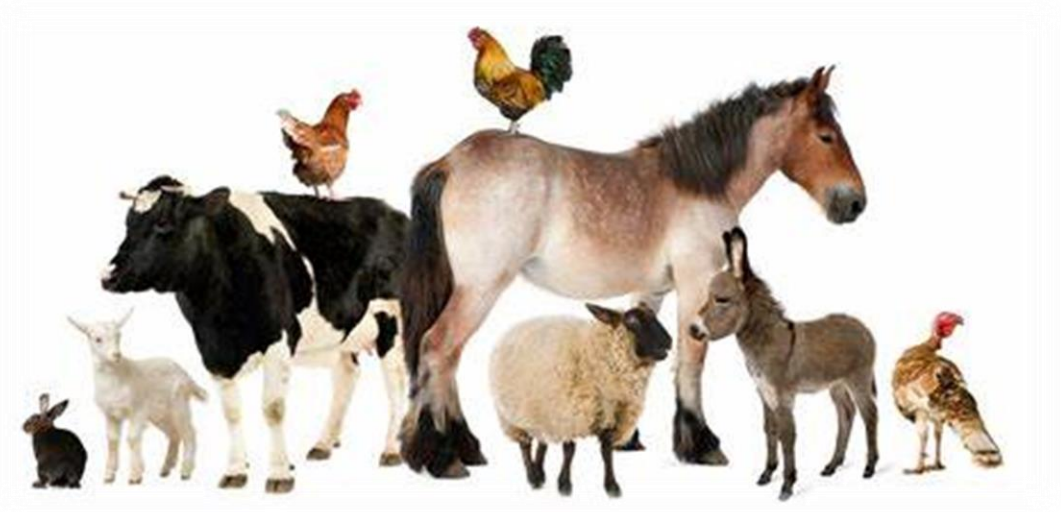
BUSINESS PLAN FOR
KOM FOOD PRODUCTS COMPANY LIMITED (A SUBSIDIARY OF KOM GROUP OF COMPANIES LIMITED)

FOR THE PROPOSED IMPLEMENTATION OF MAIZE & RICE PADDY MILLING AND ANIMAL FEEDS PRODUCTION PROJECT ON PLOTS NUMBER 1, 2, 3, 4 and 5,6,7,8 BLOCK "A" AT CHAPULWA INDUSTRIAL AREA, KAHAMA, SHINYANGA.

JAN 2022



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EXECUTIVE SUMMARY

KOM Food Products Company Ltd (KOM Products) is a subsidiary of KOM Group of Companies Ltd headquartered in Kahama, Shinyanga. It is part of the conglomerates which has made remarkable business transformation over the last 20 years. As part of the group's up-scaling and diversification strategies started way back, the company is in the process to implement agri-processing projects focusing on Maize, Rice and Animal Feeds Milling. The project will be implemented on plots numbers 1, 2, 3, & 4 and 5,6,7,8 at Chapulwa industrial area, Kahama - Shinyanga region. The eight plots form two compounds of about 54 Acres both enclosed with brick walls. Leading objectives for the project include: reducing poverty, achieving food security and nutrition, contributing to economic growth, increase exports, and contributing to industrialization which goes in hand with increasing employment and tax revenues.

Proposed milling project will be one among the giant in the country by its processing capacity per day. Maize Mill will be able to process 144 Tons per day, Rice Mill 192 Tons per day and Animal feeds 240 Tons per day. The technology to be deployed will allow process integration and automation to guarantee safety, efficiency, and consistency in the quality of output.

As part of project implementation, the company has signed contract with Buhler A.G., Gupfenstrasse – Switzerland to supply, install and commission the project. Buhler is a well-known 60-years' experience company with top class technology for grains processing. They will bring to the market new innovations that will enable KOM Foods to deliver efficiency, volumes and quality products that will help the company to remain competitive while touching life of the people.

The three sub-projects targets to take advantage of: - raw materials supply (maize, rice paddy and seed cake); proximity to cross boarder markets (Burundi, Rwanda and DRC); distant location from other millers which allows for material sourcing and distribution advantages; existing lucrative niche markets comprising of mining companies, employees and business community; synergies from the intercompany operations (e.g. Oil, maize and rice mills will supply raw materials to animal feeds), country wide distribution network under sister company - KIMPEX, promoters experience in managing milling business, growing loyalty for existing group brands; and innovation in technology to be used which have a number of comparative advantages including high processing capacity, low power consumption, online support capabilities, and highly automated end to end process flow with minimum human intervention.

The aforesaid competitive advantages will enable the company to pursue market disruptive strategies through offering volumes; low costs and quality products and distribution efficiency posed by proximity to the target markets. Going by the nature of the country's grain production structure, the project will directly affect farmer's life through raw materials supply chain and on the market side, will endeavor to satisfy consumers' demand. The objective is to improve standards of living including that of the large population at the bottom of the pyramid particularly women who are the majority in small scale farming, through offering reliable markets for the agricultural produce and supplying at reasonable costs nutritious and health food.

These projects have great importance to the export markets penetrations. For maize grains which over times have been facing market entry barriers for reasons that they contain toxic aflatoxin materials, technology to be deployed has process to remove the toxic substances and leave the grain safe for human consumption. This is a unique service that can also be extended to other exporters of the maize grain. Moreover, the technology provides for Degermination of the grain the process which will make the maize endosperm to be free from fat and thus produce healthier flour with longer shelf life. As for rice, it will be produced in brown or polished and of various grades to meet international standards. Animal feeds will be useful for fattening of the cattle required to produce meat for export markets. Input raw materials will largely comprise of maize and rice bran with low content of fat substance considered to be healthier for the animals, this will make the feeds produced to be competitive in export markets.

Total investment cost will be TZS 80.4 billion which TZS 25.5 billion will be financed through overseas loans under ECA arrangements, TZS 47.4 billion Term loans from local banks and TZS 7.5 billion equity contributions. The company has already started implementation by acquiring land and fencing, importing machineries, and delivering to the site also acquired necessary equipment for project implementation. The coming phase will cover erection of project warehouse and supporting infrastructure, installation of machineries and commissioning. The project implementation for this phase will take about 2 years from the time contractors are handed over the site.

This plan has thus been prepared to motivate borrowing from the Bank an amount up to TZS 42.9 for capital investments required to complete the project. Project's investment analysis shows that it is highly viable and cash flows to be generated will be able to repay loans in good time.

1.0 GROUP PROFILE

1.1 Background

KOM Group is an apex of several private limited liabilities companies having diversified business operations in the country. It is wholly owned by the family led by the founder who is also the group Board chairman. Promoters of the company started business as sole proprietor at a small scale and after 20 years in operation they registered their first company - Kahama Oil Mills Coy Limited (KOM) with Certificate of incorporation no.44924 dated 2nd December 2002 and headquartered in Kahama, Shinyanga region. Several other sister companies have been established including Kahama Import and Export Agency co Ltd, Royal Super Market Co Ltd, Shinyanga Royal Pharmacy Co Ltd and KOM Food Products Co Ltd. Under these companies several business lines have been established.

1.2 KOM Group of Companies and Ownership **Structure**

Shareholder	KOM Group	KOM	KIMPEX	KOM Food	Royal Supermarket	Shyinyanga Royal Pharmacy
KOM Group of Companies		25.32%	50%	51%	75%	51%
Mhoja Nkwabi Kabalo	70%	24.78%	40%	19%	4%	20%
Sylvester Mhoja Nkwabi	10%	9.9%	10%	10%	1%	20%
Jesca Mhoja Nkwabi	10%			10%		
Jenifer Mhoja Nkwabi				10%		
Joyce Mhoja Nkwabi	10%			10%		
Undistributed		40%			20%	19%
Total	100%	100%	100%	100%	100%	100%

1.3 Business Portfolios

KOM was established to scale up sole proprietorship businesses originally undertaken by the promoters and in the earlier days following its establishment the company ventured into agro-processing focusing on cotton ginning and seed oil extraction. By year 2013/14 the company had grown to become the largest ginning company in the country with output of over 70,000 bales in one season. Today the company has three operating ginneries, two in Kahama (named ginneries “A” & “B”) and one in Maswa with a total processing capacity of 950 Bales per day – making it one of the largest cotton ginning facilities in the country.

Ginnery “A” has machineries of high ginning capacity of three gin stand of continental super 141 Model with lumas press (205kg bale standard). Ginnery “B” has machineries of low ginning conventional having 100 saws each of five gins saw stands and press of Pakistan (205kg lint pressing bale standard). Maswa ginnery is fairly new as was constructed in 2014. It is equipped with 48 roller stand gins (MDR) run with new Bajaj bales press (producing 205kg bale standard).

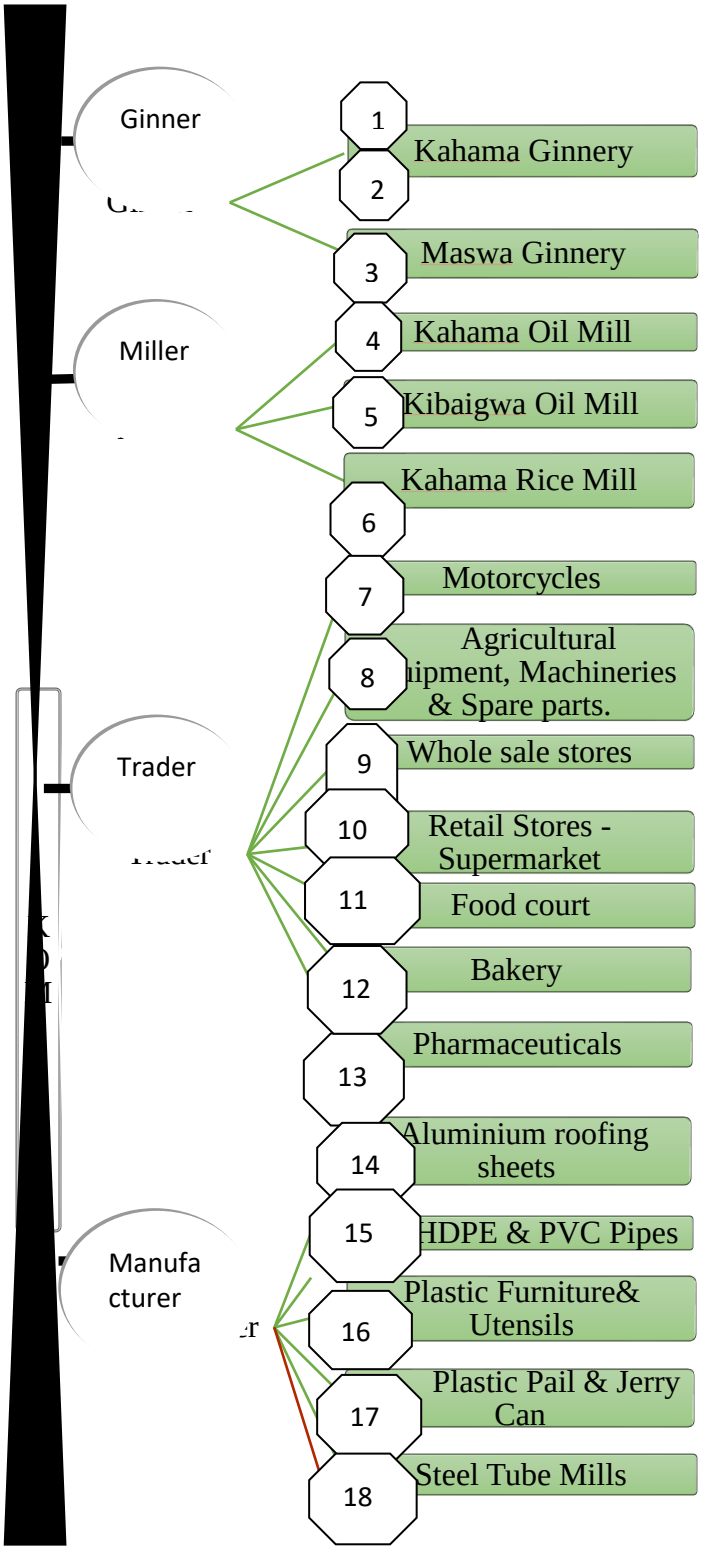
Since installed all three ginneries have remained operational in all seasons making the company active player in the export of cotton lint – main source of foreign currency earnings.

KOM 50acres Premises

To take advantages of cotton seed supply and the entire cotton value chain, the company installed oil mills along with ginning facilities and since then has continued to expand its oil crushing plant to three oil mills, two in Kahama and one in Kibaigwa – Dodoma, with total crushing capacities of 300 Tons per day (for cotton and sunflower). All three oil mills are operational. The company is contemplating to install modern and large capacity pressing, solvent extraction and refinery facilities in Kibaigwa to augment existing facilities.

Maswa Ginnery

Second level of expansion has involved installation of manufacturing facilities for PVC, HDEP pipes, Aluminium sheet, Steel tube mills and Plastic furniture, Jerry cans, Pail and Utensils. This was a strategic move to diversify agri-processing which largely involves seasonal crops (mainly cotton) and thus remaining active for only few months in a year. The other motivating reasons include taping into consumer value chain targeting farmers, miners, agri-processors and public enterprises.



Kibaigwa- Dodoma – Oil Mill

KOM Ginneries and Oil Mills

KOM Aluminium Sheet Plant

Aluminium Sheet Fabrication plant has two lines of machines with capacity to fabricate up to 103 Tons per day. Top Brand includes 32 gauge - “Migongo Midogo” sheets which have good demand in the lower market such that customers are ready to pay in advance. Other Brands include “Migongo Mipana” 30 and 28 gauge fabricated in both white and coloured sheets which are often sold to the top tier market including institutional customers.

Steel tube Mills factory has two lines with total capacity of 9,768 Tons per day. They are made to produce varieties of steel pipes for building and construction purposes (flat bars, square and round pipes) and flat sheets. These products are sold to wholesalers and contractors who have big projects, Government and its agencies and traders.

The company has also installed machines for manufacturing of High Density Polyethylene (HDPE) and Polyvinyl Chloride (PVC) pipes and fittings. HDPE factory has three lines which together have capacity to produce 15.8 tons per day of mixed pipes with diameter ranging from 25mm – 250mm at normal pressure and 20mm – 75mm for PPR pipes. PVC factory has four lines which together have capacity to produce 14.3 tons per day of mixed pipes having diameter ranging from 20mm – 250mm. All machines have been maintained well and are in good order




In Tanzania there are five giant pipes manufacturing plants. In all these modality of operation, sales and marketing is more less the same. PLASCO has been in the pipes manufacturing business since 1982 and in term of market share is the biggest, followed by Pipes Industries Company Limited (PICL) which has been in the industry since 2012 and its market share is steadily increasing. Other three giant manufacturers are Kiboko (MMI), KOM and DPI Simba by order of market share. Installed capacity of PLASCO

is 20,000 tons per year, DPI Simba 12,000 tons per year, Kiboko (MMI) 24,000 per year, PICL 40,000 tons/year and KOM is 10,836 Tons per year.

All 18 business lines are in good order. Top revenue line is Cotton ginning which on a good year and with sufficient working capital can produce at a minimum 70,000 bales (205Kg each). Second in the list is edible oil extraction which total installed capacity is 300 Tons per day making it a third largest in the country only after Mount Meru and Jielong. Revenue top line for manufacturing businesses is Aluminium Sheet fabrication followed by HDPE and PVC pipes.

Third level of expansion is under implementation and is involving deployment of advanced technology machineries for Breads Baking; Processing and Packaging of beverages; Milling and packaging of animal feed, rice and maize flour. These projects will be established in regions of Shinyanga, Pwani, Mwanza and Dodoma as shown in the map below

Machineries for all new projects have been delivered to the site financed through Export Credit Agencies (ECA). The remaining 15%, land, and warehouse infrastructure have been largely financed by Azania Bank and owner's equity.

1.3.1 New Projects on implementation, Capacity and Completion

	PROJECT	PRODUCTS	OUTPUT CAPACITY	COMPLETION
1	Milling Plants (Maize, Rice and Animal Feeds) at Chapulwa - Kahama - Promoter KOM Food Products	Maize Flour	192 Tons/day	50%
		Rice	144 Tons/day	50%
	Switzerland Technology	Animal Feeds	240 Tons/Day	50%
2	Bakeries Production Plant at Zegereni Kibaha and Nyashis Mwanza - Promoter Royal Super Market	Breads	100,800 Loaves/day	90%
		Breads	100,800 Loaves/day	80%
	France & Germany `Technology	Specilaities - Cakes, Chapatti, Doughnuts etc.	Rolls/Buns 56,256 pcs/day Croissant 78,336 pcs/day	80%
3	Beverages Production & Packaging Plants for: - Still Water, Soda & Juice at Chapulwa- Kahama - Promoter KOM Food Products	Bottled Still Water	500& 600ML = 32,000bph, 1000ML = 19,900bph; 1500ML = 19,900bph	80%
		Fruit Drinks (Juice)	500 ML = 32,000bph 1000ML = 19,900bph	80%
	France Technology	Carbonated Soft Drinks –	300, 400 & 500 ML = 31,500bph	80%

1.3.2 New Projects Infrastructure

Beverages Plant Chapulwa-Kahama

Bread Plant Zegereni-Kibaha

Bread Plant Nyashisi-Mwanza

1.4.1 Board of Directors

MHOJA NKWABI KABILO: Executive Chairman

Mr. Mhoja Kabilo serves as group Chairman. His vision, dedication and vast experience have seen him become the driving force and instrumental in turning KOM into the trading, integrated agricultural and agro-processing conglomerates. Group Board is responsible for the overall strategy, strategic acquisition of assets, and the expansion of product lines and markets. Mr. Mhoja through his previous role as Managing Director, has steered KOM, to what it is today through innovation, commitment and passion. Under his leadership, the company continues to expand into 6 subsidiaries.

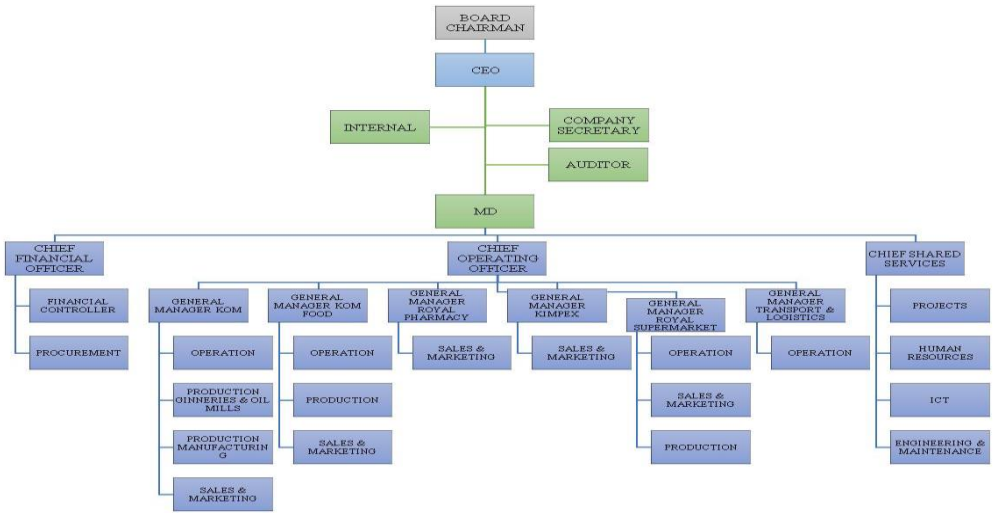
GASPER NYIKA: Board Secretary and Non-Executive Director
Mr. Gasper Nyika-is an independent advocate working at IMMA Advocates. An experienced lawyer who is also a managing partner at IMMA and has been in active law business for over thirty-five years. He brings to the board a wide and varied experience in commercial law, criminal law, industrial law and real estate law. Has been on the board of the company for the last five years and his value is immense especially as the company was expanding its portfolio in different business lines.

SAMWEL MAREKANO: Board Audit and Finance Chairman
Stephen Samwel Marekano is financial consultant who is a Chartered Accountant and tax adviser. A Holder of an MBA from the University of Dar es Salaam and armed with experience from having worked as a Finance Director in several companies, including a finance entity, he provides oversight on the business Finance portfolio as well as adherence to laid down processes and procedures. He has been on the board for five years as a non- executive and independent director and has been chairing the Audit and Finance committee for the past seven years.

WILLIAM MATONANGE has been the General Manager and responsible for financial oversight, trading strategy, acquisitions and expansion. Mr. William gives his valuable inputs in raising and structuring finance for all large projects implemented by Group. Mr. Matonange also serves as company secretary.

1.4.2 Management

Organization structure is as shown below



1.5.3 Key Management Positions

Name	**Position**	**Qualification**	**Experience**	**Prev-Occupation**
Mhoja Nkwabi Kabalo	Chairman	Standard vii with various entrepreneur courses certificates	30years	Businessman
Jesca Mhoja Nkwabi	CEO	BBA, MSC International Business and Finance, Doctor of Business Administration.	4 years	Director
Sylivester Mhoja Nkwabi	Executive Director	Business Administration		
William Matonange	Company Secretary	Bsc.(Agri. Eco),Dip in Agric from MATIU	36years	TCB Cotton Manager
Goodluck Nkini	CFO	BCOM Accounting, MBA Finance, MIT, CPA(T)	25 years	Managing Director Lualaba Manganese – DRC
Biman Chakrabarti	Financial Controller	BCOM, CHATERED ACCOUNTANT	25 years	GS Holding Limited – Mozambique as Financial Controller
Zainul Pathan	Procurement Manager	MBA-Business Administration	8years	Sales Manager

2.0 THE PROJECTS

2.1 Background

Tanzania is endowed with abundant natural resources, which includes land, forage and livestock resources base. Agriculture is the leading source of livelihood for the majority of the population, employing around 68% of the total employable population and contributing up to 27% of total GDP. It involves exploitation of vegetable and animal resources that comprise of growing of crops, raising and breeding of animals, harvesting of timber and other plants, animals products from a farm or their natural habitats. About 70% of the total populations live in rural areas and most of them are engaged in agricultural activities including cereals farming and animal keeping.

Cereals contribute 75% of calories and 67% of protein intake and are the most important source of food all over in the world. Maize, rice and sorghum are the important top cereals produced in the Tanzania and are the leading staple foods in East Africa. Domestic maize production contributes over 50 percent of the national grain supply for majority of EAC member countries (Burundi, Rwanda, Kenya, Tanzania, and Uganda). Cereal crops are mainly grown for domestic consumption in respective countries. Maize use include for human food, animal feeds, brewing and seedling.

The demand for cereals (soybean, wheat, and maize) has been increasing year after year due to population increase. It is also increasing due to a significant increase in animal feed motivated by growing commercial poultry which has consistently pushed up farming livestock population. With increasing cultivation, and through the adoption of hybrid varieties and GM technologies, the country grain market is expected register a CAGR of 4.2% (Mordor Intelligence, 2021).

The aforesaid developments in the grain subsector need a parallel expansion of the milling and processing facilities to take advantage of the growing production and demand. Large milling facilities establishments in the country are still few and remain concentrated to the major cities for reasons of markets accessibilities. Emerging new opportunities posed by the changing life style and health consciousness which together are pushing demand for health food, increasing investments in commercial poultry hence growing demand for animal feeds, growing pressure to compete on the product costs and quality, and opportunity to optimize agricultural production value chain has motivated investments to the three sub-projects.

2.2 Project Description

KOM Food is in the process to implement a milling project which by its size will be one of the largest milling facilities in the country. The project once completed will have capacity to process 144 tons/day of dried maize, 192 tons/day of rice paddy and 240 tons/day of animal feeds. Products will include maize flour, graded and packed rice and animal feed pallets to cater for local and export markets (EAC and SADC Countries)

The project intends to take advantage of the abundant supply of both maize and rice in the country considering that it is ranked among the top 25 maize producing countries in the world with production of maize accounting for more than 70 percent of the cereal produced in the country. Using the power of the innovations in technology, it will be able to produce flour and

rice of high quality, which will have long shelf life for local and export market at competitive price.

Project investment activities have commenced at Chapulwa Industrial Complex, Kahama district. Work done include site preparation and fencing, procurement and delivery to the site of machineries. Coming phase targets to complete the project and thus will focus on:

a. Preliminaries and Earth works
b. Construction of factory buildings, Office buildings, Workshop and other civil works
c. Concrete works and erection of Silos (16 silos in total for phase 1).
d. Electric Engineering and Power house
e. Installation of Machineries
f. Roads, Drainage and ducts
g. Project Commissioning
h. Procurement of motor vehicles for operation activities including product distribution and raw materials carriage.
i. Initial working capital to support business operation including salaries, utilities, raw materials, packaging materials and marketing expenses.

2.3 The Proposal

This plan examines the proposed three sub projects earmarked to deploy milling facilities capable of delivering production efficiency, volume, quality and healthy products for human and animal feeds. This is part of the company's ongoing expansion, modernization, and diversification programs started way back. The project will enable the company to install modern technology machineries for Maize, Rice and Feeds mills. All the three subprojects are geared to optimize agricultural value chain through value addition in processing, packaging and distribution. On the production side will engage and collaborate with the farmers, cooperatives, aggregators and other grain suppliers to get supply of raw materials. The proposal will establish project viability based on the value chain from investment, production and distribution. It is objective is to motivate sourcing of funding to complete the project.

2.4 Project Costs and Financing Plan

The overall cost of the Project is estimated at TZS **80,431,118,938.52**. The project shall be financed through shareholders' equity of TZS 7,477,277,479.52; overseas loans under ECA arrangements TZS 25,527,710,000.00; and local banks term loan facilitates TZS 47,426,131,459.00. Promoter will use cash flows from other group operations to finance working capital as shown in the cash flows projections. Summary of the project cost and financing arrangement is as shown in the tables below:

2.4.1 Summary of Project Costs

Milling Plant (Maize, Rice and Anima Feeds)		
Particulars	USD	TZS
Preliminaries + Earthworks	1,724,580.00	3,966,534,000.00
Silo Base foundation	2,118,583.54	4,872,742,142.00
Intake Pit/ Machine Tower Bases + Sheds	264,509.16	608,371,068.00
Hanger Warehoouse (Maize, Rice, Feeds)	1,214,307.85	2,792,908,055.00
Civil + Mechanical Works	4,792,420.28	11,022,566,644.00
Elecctrical works + Power House	1,177,000.00	2,707,100,000.00
Steel Structures	3,543,112.80	8,149,159,440.00
Supporting Infrastructure	1,124,931.00	2,587,341,300.00
Consultancy + Installations FEES + Travel exp.	2,401,964.70	5,524,518,810.00
Contigencies	300,000.00	690,000,000.00
TOTAL	**18,661,409.33**	**42,921,241,459.00**

2.4.2 Summary of the Financing Plan

Financing Plan		
	Amount (TZS)	**Percentage (%)**
ECA financing Arrangements	25,527,710,000.00	32
Term Loans	47,426,131,459.00	59
Equity	7,477,277,479.52	9
Total Project Costs	**80,431,118,938.52**	**100**

2.5 Proposed TADB Borrowing and Terms

Amount:	Up to TZS 42.9 Billion
Purpose:	Finance Thirty percent (53.4%) of the proposed project costs (Plant and Machinery, Building and other related costs)
Type:	Long-term facility
Maturity:	12 years, including 24 months of grace period
Proposed Security:	Fixed and floating charge over all the assets of the Borrower (to be shared on *pari-passu with Azania Bank*)
Proposed Interest rate:	10% per annum

2.6 Project Implementation Timeline

This phase of project implementation will cover: Design; Importation of Fabricated Steel Structures; Construction of the factory buildings, Office buildings, Workshop and other civil works; Concrete works and erection of Silos (16 silos in total); storage warehouse for animal feeds; Power installation and Electric Engineering; Installation of Machineries, building of Drainage, Roads and ducts; Project Commissioning; Getting approvals for compliance from the relevant authorities. Estimated time to deliver on each activity line has been summarized below:-

- Imports of the steel structures will take 7 months (fabrication 3 months shipment 3 months inland transportation 1 month)
- Civil and engineering works for warehouse and supporting infrastructures 8 months

- Installation of Machineries, Power supply and electrical engineering 4 months
- Commission 2 months
- Compliance approval by the authority 2 months

Other activities like design, drainage, roads and the like will be done parallel with the desired critical activities in the table below:

Schedule of Critical Activities and implementation timeline

SN	***Critical Activities***	***Mar 2022***	***Oct 2022***	***Jun2023***	***Oct2023***	***Dec 2023***	***Feb 2024***
1	Ordering of Steel Structures						
2	Civil and Engineering works for Warehouse and supporting infrastructures;						
3	Installation of Machineries, Power Supply and electrical engineering						
4	Commissioning						
5	Compliance approval by the relevant authority						

2.7 Project Strength and Opportunities

Experienced local sponsor: KOM Group through Kahama Oil Mill (Sister Company) is among the leading milling company with a strong and proven track record. It is also an experienced commodity trader including agri-commodities. The proposed projects will benefits from the vast experience and market knowledge. The envisaged project is an implementation of vertical integration strategy to take advantage of the group's existing businesses.

Strategic Location: The Project will be in Kahama, Shinyanga to take advantage of proximity to the raw materials supplies. Lake Zone is known to be among the leading regions for rice and cotton production, it is also close to maize producing regions the like of Tabora, Simiyu, Dodoma, Katavi, Manyara, Rukwa and Singida. For all three subprojects, these will be the only processing plants of its kind within a radius of over 300km; and will also be close to the targeted export markets of DRC, Burundi and Rwanda.

Good market prospects: Maize and rice being the leading consumed grain in the EAC market have ready markets as the region is still short of supply. With the projected population growth, increased demand for processed quality food, and growing population of livestock which demands animal feeds, demand for processed foods and

its related by-products is expected to remain high in the medium to long term.

Technology: The project will deploy modern technology machineries which have a number of comparative advantages including high processing capacity, low power consumption, online support capabilities, integrated and highly automated end to end process flow with minimum human intervention. For maize milling, the initial process will be cleaning and drying through which the amount of toxic chemicals known as aflatoxin will be removed to make maize ready for processing or export. This alone is good business that can be offered to other millers and exporters at a fee. Moreover, the process of degermination for maize milling usually not available with small millers will increase shelf life of the produced maize flour to allow for distribution to a distant market.

Experienced top class Supplier: The supplier is a top class global manufacturer with vast experience in grain processing technologies. Has entered into contract to supply, install and commission, thereafter extend hands-on support for at least one year and continuous online support afterwards.

Synergies from shared facilities: The subproject of animal feed will benefits from the supply of raw materials (rice and maize bran, broken rice, seed cakes) from groups milling facilities. Likewise all the three subprojects will benefit from shared facilities including transportation (raw materials sourcing and products distribution), utilities supply and technical support.

Opportunities to transform life: Going by the nature of the country's grain production structure, the project will directly affect farmer's life through raw materials supply chain and on the market side, will endeavor to satisfy consumers' demand. The objective is to improve standards of living including that of the large population at the bottom of the pyramid (women being the majority in small scale farming) through offering reliable markets for their agricultural produce and supplying at reasonable costs nutritious and health food.

2.8 Project Challenges and Threats

Shortage of Raw Materials: Availability of adequate supply of raw materials is critical for the project, it however depends on the production which largely is rain fed, seasonal in nature and undertaken by small hold farmers. This is mitigated by location in which the plant is established whereby it is the primary source of both rice and maize and for animal feeds over 70% of the required materials will come from the company's milling and edible oil processing facilities. The country is a net surplus producer exporting raw maize to neighbouring countries. Project has own storage facilities which will allow buying the crops during harvest and stock for production during offseason.

Inadequate working capital: With seasonal raw material supplies, shortage might arise from inadequate working capital as well as low produce which may affect the overall project performance. The project's capital costs have also factored adequate working capital requirements

Competition: Competition is likely to come from imported rice which is usually cheaper, giant millers and mushrooming small millers. Mitigation includes envisaged processing efficiency which will deliver cost advantage also policies in place which are geared to protect local millers. Location will offer cost advantages in the raw materials sourcing and final products distribution. Group distribution network and brand loyalty for existing products will help the products to penetrate the markets

Unpredictable Policy changes: The like of unprecedented amendments to the tax rates, licensing regulations etc. It is known that such will equally affect all players as the company has followed all processes to comply with the governing laws and regulations.

Poor Management: Poor management both at the top level and at operational level would have negative consequences to the project. The promoters have employed qualified team of seasoned and young miller experts, most of whom have had good experience in milling.

Quality of the Product: Urbanization and fast-growing health consciousness amongst Tanzanian population has resulted into consumer shifting to premium product. Inferior quality of output might result into decrease of demand of the company's products from the market. This is mitigated by the acquired technology which fully automated with capabilities to consistently produce quality products.

Technological Failure: Technology is a critical component in the milling project. This can affect the quality and the capacity utilization of the plant. Technological failure of the proposed plant (s) to perform as expected is crucial risk that may eventually affect the project. However, the brand of proposed machineries, the suppliers and technical support is considered adequate to mitigate this risk. The supplier will issue a warranty for a minimum of one year of operation for the equipment and machinery in order to ensure that the plants operate as anticipated.

4.0 THE PROJECT COMPONENTS

4.1. Description

The project involves development of industrial scale milling facilities to be built on Plots 1-8 Industrial Area, Chapulwa, Kahama, Shinyanga region. It comprises of three lines namely Maize Flour, Rice and Animal Feeds Mills with the following components:-

*Project Infrastructure***:**
Maize and Rice mills will be implemented on plots 1-4 while Feed Mill will be implemented on plots 5-8 all in Bock "A" forming two compounds enclosed with brick walls. Each project will have own machineries and storage warehouses, also dedicated silos for rice and maize mills whereby maize mill will have 8 silos each with storage capacity of 5,000 tons while rice mill will have 8 silos each with storage capacity of 2,500 tons. Animal feeds will have a dedicated warehouse with a number of separate chambers for storing varieties of animal feeds. There will be a dedicated space for unloading and despatch of finished goods and all will be directly accessed by the loading/unloading trucks. There will also be office buildings which will accommodate laboratory and administration blocks. Outside area will be surrounded by the concrete roads and drainage system to keep the environment clean

Machinery Component:
Each project will have a complete set of automated milling machines housed in a dedicated warehouse. Maize and rice mills will be able to automatically supply feed mills with raw materials to be produced as byproducts.

Distribution Component:
KOM Foods will have own distribution trucks and wagons. To take advantages of the group distribution network will use sister company (KIMPEX) storage facilities scattered in the country as depot whereby they will be converted to one stop center for the products.

The Agricultural Component:
KOM Food Products Co. Limited will enter into contract with farmers who will supply to the company's maize and rice under contract farming arrangements. The company will arrange to support individuals and farmers group through supply of seeds, hand operating tools for planting, fertilizers, and extension services in collaboration with other stakeholders. This component will be used to diversify the sources of supply of raw materials. The company plan to initiate this programme starting in 2nd year of project implementation. This is expected to enable adequate supply of raw materials at the time when the plant operations starts. KOM Food's goal is to purchase raw materials and deliver products that are produced in a manner that is socially responsible, economically profitable and environmentally sustainable, establishing the standard to which all suppliers of KOM Foods raw materials and products shall adhere to.

4.2. Project Machineries and Infrastructure

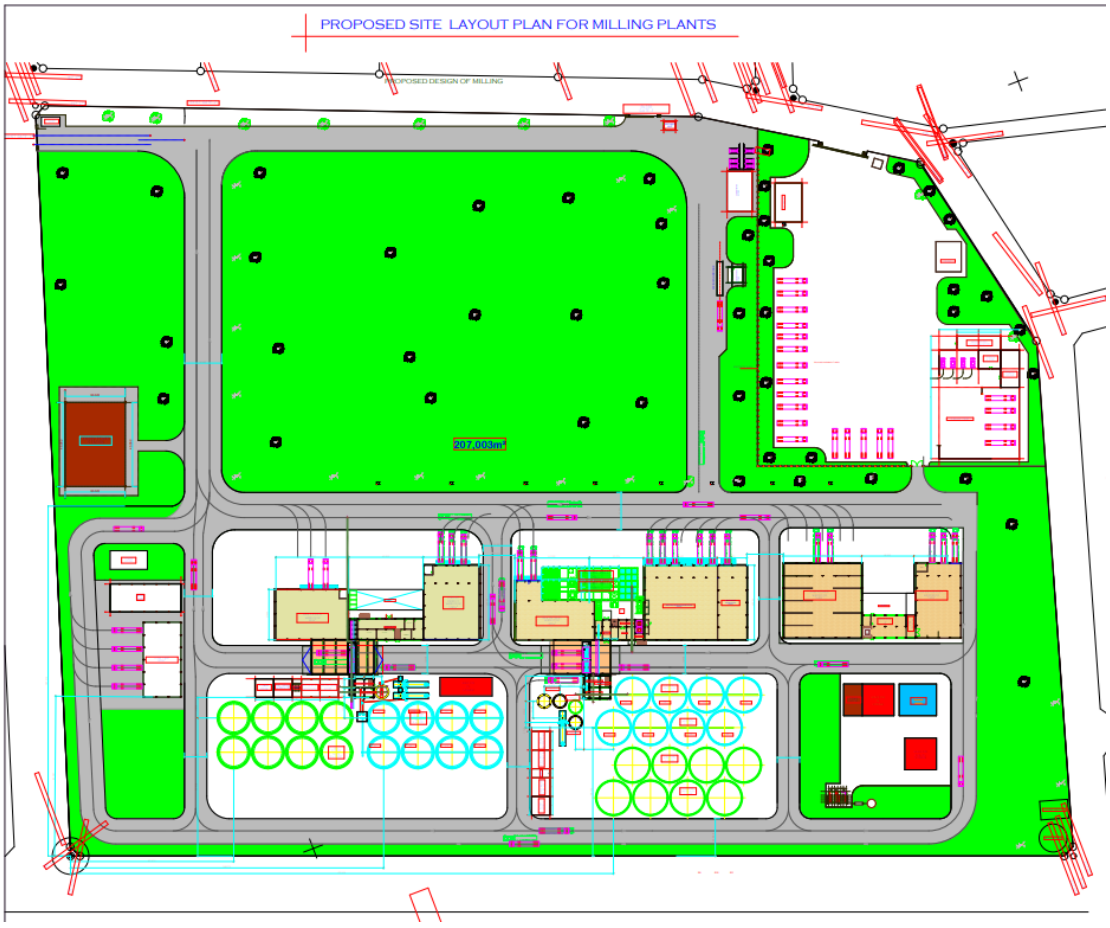
4.2.1. Project site

KOM Foods has set aside 54 Acres located at Chapulwa-Kahama industrial Area plots 1-8 divided into 2 compounds made comprising of plots 1-4 and 5-8. The area is surveyed with land titles issued to the KOM Foods. It is all enclosed with brick walls. The site has been cleared

ready for project commencement. Total amount spent for land acquisition is TZS 1,378,000,000.00 and this is from promoters own fund. In the coming phase an amount of TZS 3,966,534,000.00 has been set aside for further land development.

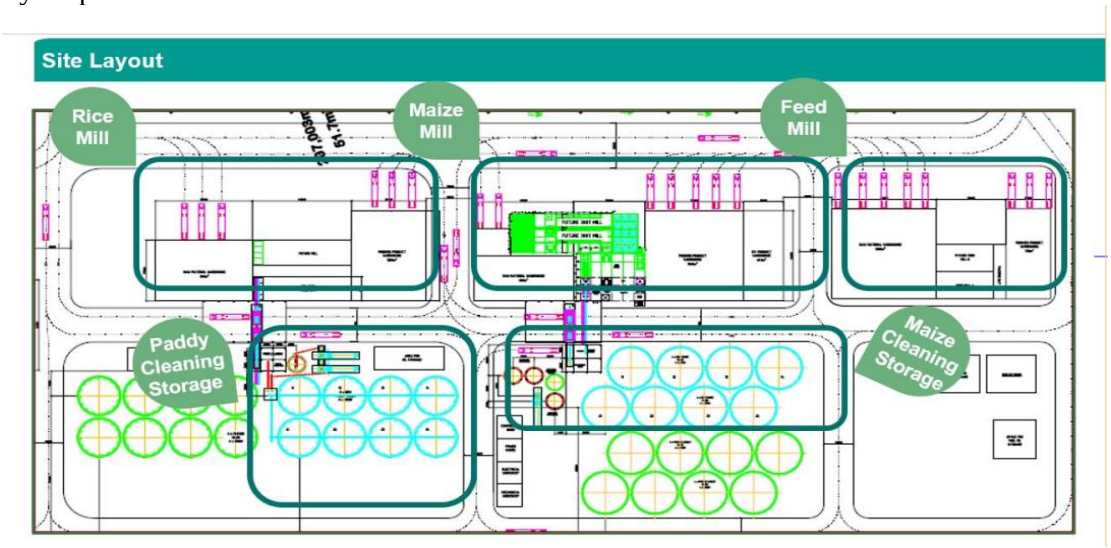
Enclosed plots at Chapulwa Industrial area.

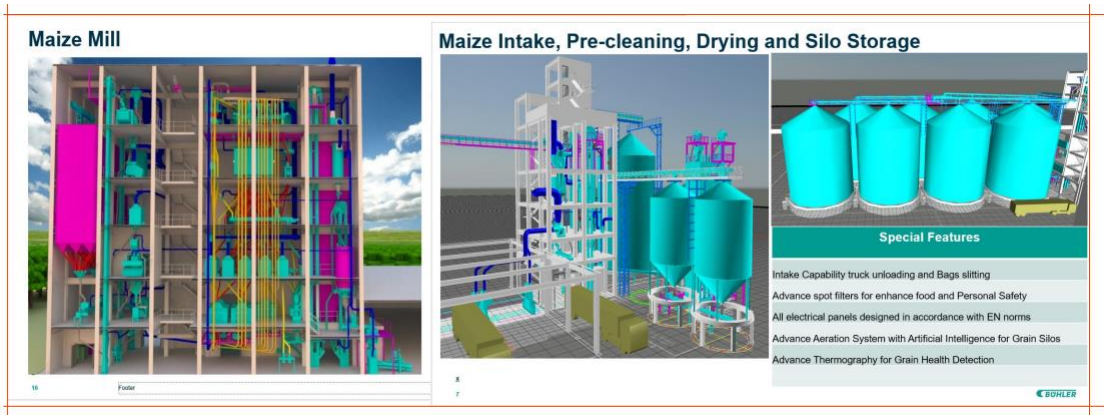
Architectural Site Layout

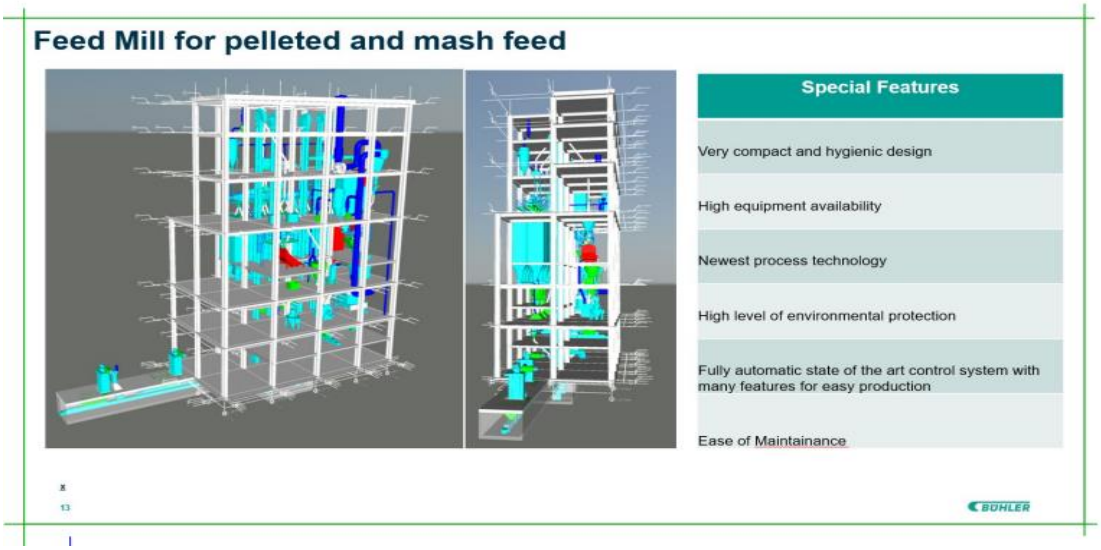


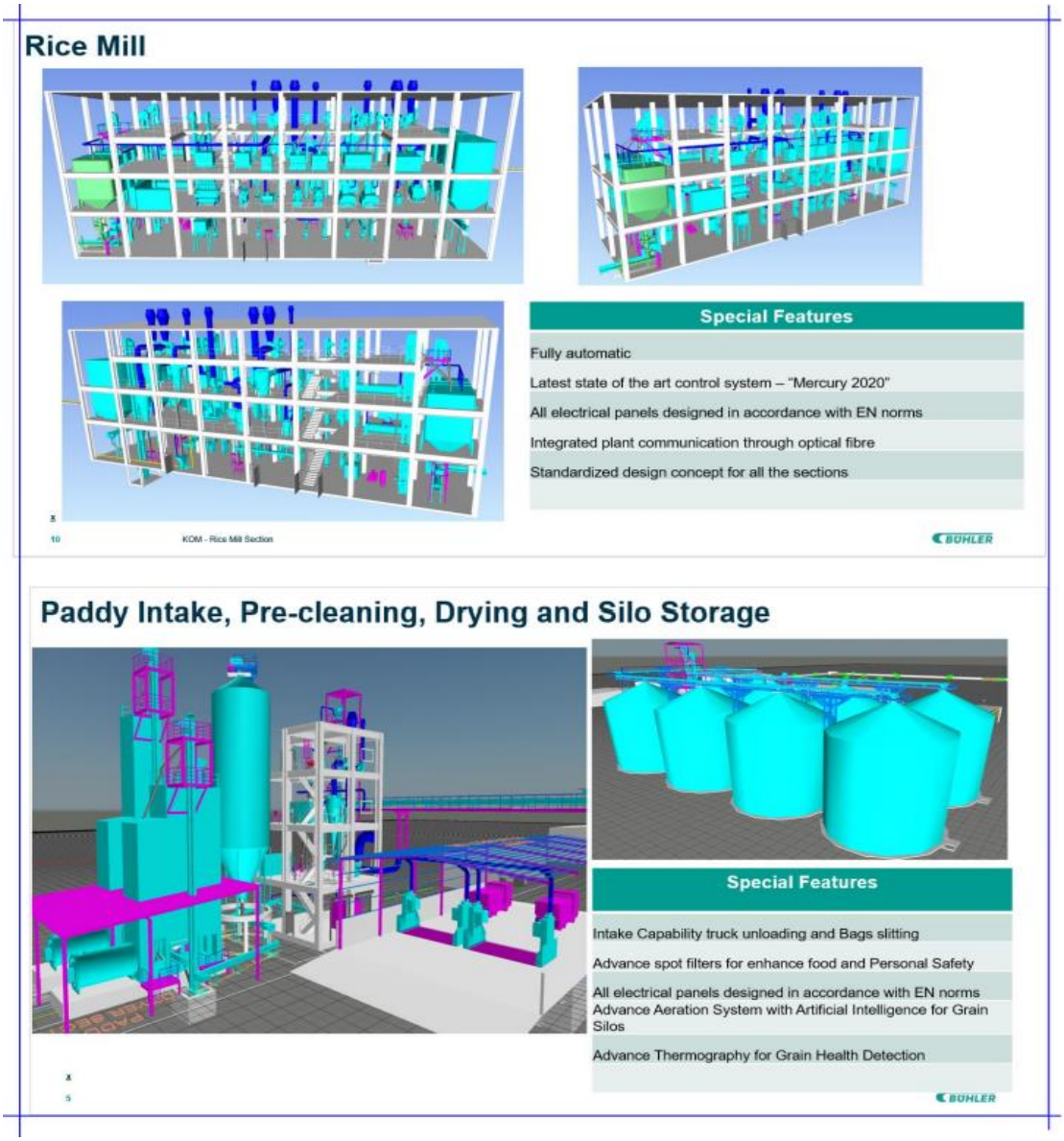
4.2.2. **Machinery**

The project will involve procurement, installation and commissioning of milling machineries. The Machineries have been all purchased and cleared from the port. Total amount spent to date is about TZS 33,637,377,194.16. Additional amount of TZS 1,750,768,859.71 has been spent for consultancy and arrangement fees. Machineries site layout is as shown in the below site layout plans







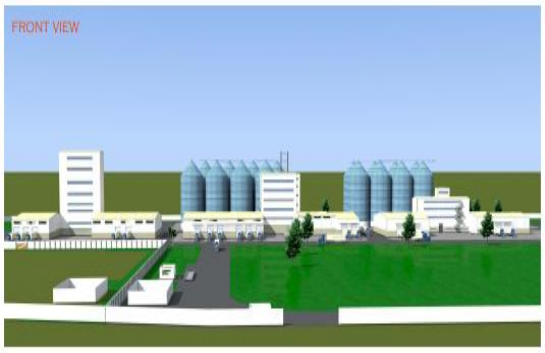


4.2.3. **Buildings and Civil Works**

There is an amount of TZS 21,759,067,384.00 have been provided for steel structures, buildings, civil works and engineering. The buildings will house machineries, storage warehouse, office accommodation, evacuation area, roads, drainage and ducts.

4.2.4. **Storage Silos**

There will be 16 silos with total storage capacity of 60,000 MT. About TZS 12,240,555,265.00 have been set aside for storage facilities and other supporting infrastructures.



5.0 TANZANIA SOCIO-ECONOMIC HIGHLIGHTS

5.1 Tanzania - Physical

5.1.1 Geography

Tanzania's geography is one of the most varied and having own unique features. It contains Africa's highest point, Mount Kilimanjaro (1,9341ft / 5,895m), as well as lakes, mountains and many gorgeous national parks. The country has area of 945,090 square kilometers and a coastline of 800 kilometers along Indian Ocean. It is situated south of the equator between the same parallels as Indonesia and Peru. It is relatively large country in East Africa, bordered by Kenya and Uganda in the north, Rwanda, Burundi, and the Democratic Republic of the Congo to the west, and Zambia, Malawi, and Mozambique to the south, and Zambia and Malawi to the southwest. Tanzania has many offshore islands including the renowned tourist destinations, *Zanzibar and Pemba.* Its climate ranges from hot and humid on the coast, to a more temperate climate in the elevated parts of the country in the north-east and south-west

5.1.2 Demography

According to the United Nations, Tanzania's population was projected at 61 million in July 2021, and the population growth rate is nearly 3.0% per annum. Tanzania is also known for the lowest population density estimated to be 134 people per square kilometers. The country has also one of the highest birth rates in the world and more than 44% of the population is under the age of 15. The total fertility rate is 5.01 children born per woman, which is the 17th highest of any country.

The country boasts of a rich cultural diversity, with over 120 different tribes, mainly Bantu-speaking, ethnic groups. The Sukuma is the largest ethnic group in the country and represents around 16% of the Tanzania's total population. There are groups of Nilotic and nomadic Maasai and Luo populations in the country as well, along with two small groups who speak languages in the Khoisan family specific to the Khoikhoi and Bushman people.

The main city of Dar es Salaam is most populous area of the country hosting individuals from every conner of the country. Although the area is traditionally that of the Zaramo, a Bantu group, they represent a very small part of the population of modern Dar es Salaam. Today perhaps all Tanzania's Bantu groups are represented in Dar es Salaam, alongside and

overlapping with the Swahilis, an African-Arab people who have inhabited the east African coast for many centuries. Also found along the coast and on the Zanzibar archipelago are the Shirazis, who claim descent from the party of an Iranian prince. It is estimated that 0.3 per cent of the population is Asian and they control large segments of the economy.

The country has official language, Swahili which the majority (over 95%) of its citizens speaks and write. Swahili has been a powerful communication tool in the country for over 50 years, as most information is easily understood by its citizen once translated to this language. The Government's policy since independence of encouraging national rather than ethnic cohesion has enabled people from different ethnic backgrounds to mix more successfully than in most other African states.

5.1.3 Political Environment

Tanzania has continued to enjoy political stability since it became independent in the early 1960s. This has provided reassurance to foreign investors, compared to the more politically volatile neighbors. The country has continued to enjoy stable democracy, after five peaceful multiparty presidential and parliamentary elections since the introduction of multiparty democracy in 1995. Although the ruling party has maintained its majority control of the Parliament, political competitiveness has increased.

The country has experienced increasing political dynamism. Significant developments include: (i) increasing political competitiveness and a growing number of active Civil Society Organizations; (ii) free debate on a wide range of issues including corruption, youth unemployment, Islamic courts, new constitution, and natural resources exploration and beneficiation; and (iii) the increasing role of the office of the Controller and Auditor General (CAG) and parliament in enforcing good governance and accountability in the public sector.

Tanzania scores better than the African average on various dimensions of political context serve for high income inequalities.

5.2 The Economy

5.2.1 Economic Outlook

Tanzania’s economic performance over the past 15 years has been one of the best in sub-Saharan Africa. The country’s economy has continued to perform strongly, growing at 6.73% until 2018—driven by good performances in construction, mining, transport, and communication. Projected growth took a downside trend following surging of COVID-19 pandemic which has affected global economy at large. Medium-term growth remain bullish supported by expansion of public investments, including ongoing construction of the standard gauge railway line from Dar es Salaam to Mwanza, Kigoma and neighbouring countries, Steeglers hydropower aimed at stabilizing power generation in the country, other infrastructure projects and increasing inflow of foreign direct investment (FDI) to natural resource sub-sectors. Consequently

Growth is projected to remain strong in the medium term, driven by good performances in the services and manufacturing sectors, public infrastructure investment and accelerated exploitation of natural gas. These factors, coupled with the Government’s efforts to promote industrialization, including the establishment of industrial parks, will help to expand economic activity in the medium term. The country’s vision 2025 aims to place Tanzania as middle-income nation by 2025. Determined to develop strong and competitive economy capable of producing sustainable growth and shared benefits; attain governance and livelihood for its people. The Government has set out a strategic path documented by the Tanzania development

vision 2025 and by Tanzania's Second National Strategy for Growth and Reduction of Poverty (NSGRP II).

5.3 Business Environment

Attracting investment has been a top priority of the Government development agenda. The country aims to create a favorable business environment through improved infrastructure and access to financing.

5.3.1 Open Market

Trade is moderately important to Tanzania's economy: the combined value of exports and imports equals 37 percent of GDP. Tanzania's major exports are agricultural commodities with cotton, coffee, cashew nuts, tea and cloves being the most. Tanzania's major trading partners include: China, Germany, Japan, India, the European Union, United Arab Emirates, United Kingdom, Kenya, Japan, India and South Africa.

5.3.2 Fiscal Health

Tanzania's fiscal position remains healthy. The Government continues to implement public expenditure rationalization measures to improve revenue mobilization and keep the fiscal deficit within sustainable limits. The country's macroeconomic environment remained stable, scoring strongly on a number of indicators such as low inflation, improved current account position, stable currency and availability of adequate foreign exchange reserves to cover over 4 months of imports.

Fitch recently affirmed the Tanzania's investment grade rating of B2 with stable outlook for both long-term FCY and LCY sovereign issuances, citing the country's exceptional economic performance, robust credit position, and low debt levels compared to peers. While low per capita income and weak governance standards were cited as key concerns that slashed the rating, the government's proposed tax reforms and the demonstrated resilience to external market volatilities could spell another ratings upgrade for the country. Similarly, Standard and Poor also maintained its BBB (long-term) and A-2 (short-term) sovereign ratings for the country. Credit Default Swaps (CDS) spreads for the Tanzania is well below ratings peers. Projected fiscal deficit has increased to 3.9% of GDP, which is higher than 1.8% projected previously. The stock of external debt amounted to. USD 26,557.7 million at the end of September 2021 while domestic was TZS 17,091.9 billion at the same period.

5.3.3 Development Challenges

Tanzania's economic prospects depend on investment in more infrastructure, as well as improving the business environment, increasing agricultural productivity and value addition, improving service delivery (to build a healthy and skilled workforce), and managing urbanization. With approximately 800,000 youth entering the labor force every year, nurturing a vibrant private sector to provide productive jobs is critically important.

The country embarked on its second Five Year Development Plan, 2016/17 to 2020/21 (FYDP II), which picks up on interventions which fell short under MKUKUTA II and FYDP I. Based on a credible, realistic financing plan, the country's fiscal and debt sustainability will be maintained. The private sector can also be leveraged, not only as a source of financing for FYDP II through public private partnerships (PPPs), but also as the actual driver of industrialization.

5.3.4 Economic Structure

The economy of Tanzania is a lower-middle income economy that is overwhelmingly dependent on agriculture which contributes over 27% of the country's GDP and accounting for

a massive 68% of total employment. The agricultural sector is central to the economic development. As of 2016, Tanzania had over 44 million hectares of arable land with only 33 percent of this in cultivation. About 70 percent of the populations live in rural areas, and almost all of them are involved in the farming sector. The agricultural industry makes a large contribution to the country's foreign exchange earnings, with more than US$1 billion in earnings from cash crop exports.

5.3.5 Contribution of Women

Agriculture is a single sector in the world which majority of workforce comprises of women. Aggregate data shows that women comprise about 43 percent of the agricultural labour force globally (FAO, 2011). Approximately 98% of rural Tanzanian women classified as economically active are engaged in agriculture. Women farmers also contribute substantially to both commercial and subsistence agriculture, including livestock and fishing, as casual labourers and unpaid family workers (ILO, 1992). In Tanzania, 70% of employed women work in agricultural sector (ILO, 2020). There are more women working in agriculture in Tanzania than in any other sub-Saharan country. About 81% of the female population in the country works in agriculture, compared to 55% in the rest of sub-Saharan Africa, according to a 2011 study by the University of Washington (ILO, 2020).

The projects to be established will wholly focus on the agri-commodities processing; storage; packaging; and distribution. Through the chain will touch lives of the majority of the population involved in agriculture – the smallholder farmers who are the primary source of raw materials. Considering that women are the most involved, this project thus will directly touch lives of the poor women in rural areas who take on the burden of farming. Through offering reliable markets and good price for the agri-produce, will have helped the women engaged in agriculture. On the other hand, the project will sell back quality and health food at an affordable price.

5.4 The Agricultural Sector reviews

5.4.1 Overview

General

Agriculture is an important economic sector that plays great role to the national economy of Tanzania. According to National Sample Census of Agriculture report published by the Tanzania Bureau of Statistics (TBS), the sector contributes 26.9 percent of the National GDP (Economic Survey Report, 2020). The contribution of crop sub-sector to the GDP is 15.4 percent, Livestock 7.1 percent, Fisheries 1.7 percent and Forest 2.7 percent. Of the total

agriculture households surveyed, 64.9% were involved in crops only, 2% in livestock and 0.4% in fish farming and pastoralism. Out of the land surveyed 66.4% was planted with annual crops, 16% permanent or perennial crops 7% was planted with a mixture of annual and permanent crops and 7% was area of uncultivated usable land (TBS, 2021).

Food crops
Most of Tanzanians engaged in agriculture are smallholder farmers who grow a wide variety of annual and perennial food crops such as paddy, maize, sorghum, beans, cowpeas, green gram, groundnuts, sunflower etc. Cereals were found to be the main type of crops grown by smallholder farmers across the country followed by oil seed and nut crops, pulses (beans, pigeon peas, cowpeas and green grams), roots and tubers. In addition to that, farmers also grow wide varieties of fruits and vegetables such as tomatoes, onion, cabbage, amaranth, orange, mango, banana, pawpaw, watermelon etc. Food crop production reached 9.3 million tonnes in 2018/19, compared to 9.7 million tonnes in 2014/15 (-4%). Maize is the most produced food crop in Tanzania accounting for 62.6%, followed by rice (21.6%), pulses (15.1%), and wheat (0.7%).

Cash Crops
Cash crops including cotton, tobacco, sisal, cashew nuts, coffee and tea and are grown by both smallholders and commercial large-scale farms for export. Cash crop production reached 0.639 million tonnes in 2018/19. Cashew nuts are the most produced cash crop in Tanzania accounting for 35.2% of the production, followed by seed cotton (34.9%), coffee (10.4%), tobacco (8.6%), tea (5.8%), and sisal (5%) (Tanzania Invest, 2020).

Livestock
Tanzania is one of the African countries known for livestock resources. It ranks third in Africa after Sudan and Ethiopia in livestock population .Livestock is a key agricultural sub-sector in Tanzania. About 36% of farm households are engaged in livestock-keeping. The sub-sector contributes 5.9% of the country's Gross Domestic Product.

According to the Ministry of Livestock & Fisheries Development, the country boasts of being the third largest in the number of livestock in Africa, with a reported 25 million cattle, 16.7 million goats, 8 million sheep, 2.4 million pigs, and 72 indigenous and commercial poultry. Vast and sparsely populated land, abundant water resources, a long coastline and large lakes and a thriving grain sector provide a huge incentive for the growth of the meat, poultry, and fish industry in Tanzania.

The livestock population in the country both from traditional and commercial production is increasing as some farmers adopt improved production systems such as feedlot ting and commercial producers respond to demand for quality meat niche and export markets. Like cereal farming, livestock subsector has majority of smallholders engaged in rearing of indigenous cattle, sheep, goats, and chicken while fishing and fish farming is practiced at small scale (TBS, 2021).

5.4.2 Cereal Production

Production countrywide
Data published by the Ministry of Agriculture, National Food Security Division for 2018/2019 crop season (presented in the below table), show that the total cereal production in Tanzania amounted to roughly 10 million metric tons. Maize was the main crop, accounting for 64.6% of the total cereals and 63% of the area cultivated. During the period, maize production was approximately 5.8 million metric tons followed by rice with 2 million metric tons. Unlike other cereals, all 26 regions in the Mainland Tanzania have a segment of population engaged in the

production of maize and rice even at a very small scale. These figures show how important the two cereals are to the livelihood of the country population.

Production at Lake Zone

The data shows further that Lake zone area with regions of Simiyu, Geita, Mwanza, Shinyanga, Kagera and Mara produced 1,139,573 MT of maize and 534,195 MT of rice which is equal to 20% and 27% of the country's total production for maize and rice respectively. Maize and rice mills to be installed will require 43,200 MT and 57,600 MT of raw maize and rice paddy respectively assuming 300 days of operation. The requirement is equal to 4% and 11% of the total production from the lake zone for maize and rice respectively. If compared with the country's total production, maize mill annual requirement is equal to 1% and for rice is 3%. Considering that over 70% of animal feeds will come from maize and rice bran, it can be affirmed that, the country has abundant supply of raw materials required to feed the three subprojects of maize, rice and animal feeds mills to be established.

Cereals Production by regions in 2018/19 crop season

Production of Cereals by Region (2018/19)														
	Maize			Rice			Sorghum			Finger Millet			Total Area	Total Production
Region	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production	Area	Yield	Production		
Simiyu	169,141	1.5	260,759	35,818	1.2	41,678	71,209	1.2	82,175	14	1.1	15	276,182	384,628
Geita	98,797	1.7	167,955	80,119	1.8	144,214	9,796	1.1	10,365	592	1.0	586	191,129	325,493
Mwanza	83,310	1.2	99,972	86,346	0.9	77,712	11,546	1.1	12,320	11	1.2	13	182,358	191,619
Shinyanga	76,095	0.9	68,486	91,170	1.0	91,170	44,963	0.9	38,889	1,311	1.2	1,625	221,846	211,800
Tabora	237,956	1.3	309,343	95,176	1.5	139,352	33,333	1.4	46,666	486	1.3	632	369,141	498,122
Mara	87,207	1.8	156,972	17,940	1.4	25,012	65,409	1.5	97,836	4,093	1.1	4,626	174,974	284,814
Manyara	240,648	1.4	329,139	5,013	1.3	15,039	21,353	0.9	19,575	8,922	1.4	12,490	286,802	396,032
Singida	158,601	1.1	166,613	8,315	1.5	12,067	100,396	1.2	120,475	6,706	1.5	10,058	327,429	394,674
Kigoma	218,794	1.9	417,330	23,009	1.8	41,415	2,379	1.8	4,224	185	1.1	198	244,366	463,168
Kagera	80,318	1.8	144,572	8,857	1.7	15,057	8,426	1.3	10,776	1,637	1.1	1,862	99,463	172,524
Katavi	63,554	2.3	146,175	55,518	2.3	127,691	760	1.6	1,236	13	2.3	30	119,852	275,117
Rukwa	209,067	1.8	376,320	33,274	1.9	63,221	6,905	1.0	7,197	20,000	1.6	32,000	275,477	486,079
Dodoma	111,689	0.9	100,520	5,704	1.2	6,845	151,396	1.0	151,396	5,055	1.4	7,076	401,425	444,451
Iringa	117,160	1.8	210,889	13,040	2.3	29,728	4,458	0.9	3,858	6,454	1.1	7,305	151,392	265,974
Njombe	160,899	2.0	321,798	838	1.7	1,448	1,250	1.1	1,370	1,311	1.1	1,507	168,627	331,527
Arusha	98,877	1.4	138,428	51,000	3.3	168,300	23,247	0.9	20,922	791		712	177,821	334,326
Pwani	27,257	1.0	27,257	47,768	1.2	58,423	6,185	1.3	7,807				81,210	93,487
Dar es salaam	656	0.9	608	1,835	0.7	1,229							2,491	1,837
Kilimanjaro	80,010	1.9	152,019	13,451	1.1	39,038	301	1.3	396			-	95,600	193,880
Lindi	87,832	1.1	99,946	13,698	1.2	16,438	36,556	1.0	36,556			-	138,086	152,940
Mbeya	192,069	2.4	460,966	72,849	3.0	218,547	3,575	1.5	5,236	1,614	1.0	1,642	273,772	692,654
Songwe	164,724	2.5	416,211	19,625	3.0	58,875	15,192	1.4	21,152	4,804	1.4	6,726	204,863	503,505
Morogoro	95,100	1.4	135,027	190,326	2.5	477,978	12,733	1.5	19,075	469	1.0	450	298,675	632,575
Mtwara	40,677	1.1	44,745	18,847	0.9	17,361	13,606	7.0	9,506	152	0.9	143	73,347	71,815
Ruvuma	275,439	2.4	661,054	54,211	1.9	104,016	1,020	1.8	1,858	7,137	1.4	9,992	340,655	780,337
Tanga	252,753	1.6	404,405	8,801	2.0	17,320	878	1.2	1,013			-	263,211	424,532
Total	**3,428,630**	**1.6**	**5,817,509**	**1,052,548**	**1.7**	**2,009,174**	**646,872**	**1.5**	**731,879**	**71,757**	**1.3**	**99,688**	**5,440,194**	**9,007,910**

Source: Ministry of Agriculture, National Food Security Division, crop Monitoring and Early Warning Section

Animal Feeds

In recent time the people of Tanzania have become more aware in feeds practices. Increasing demand for animal feeds is driven by a need to produce more livestock products whose demand in the region has been following similar trend. Specifically, demand for poultry feeds is on upward trend following increasing demand for poultry products at an average of 11% annually. As of 2014, poultry feeds constituted 64%, 96%, and 60% of all animal feeds demand in Kenya Tanzania and Uganda respectively.

5.5 Agri-processing

The food manufacturing/processing industry in Tanzania constitutes 24% of the entire manufacturing sector. The main sectors are beverage and dairy products, canning and preserving of fruits and vegetables, canning fish and similar foods, manufacture of vegetable oils, grains milling and baking, sugar, and confectionery as well as animal feeds (Food Business Africa, 2019). Tanzania offers unique opportunities for the growth of the food and milling industry in East Africa. With abundant arable land, water resources and fertile soils, most of

which are virgin, Tanzania has a huge advantage in the agriculture sphere and indeed it offers huge opportunities to invest in agricultural production and processing.

5.6 Milling Facilities (Grain and Feeds)

5.6.1 Overview

Tanzania witnessed the dominance of state-owned enterprises (SOEs), and specifically the National Milling Corporation (NMC) and the National Distributors Ltd (NDL), in the milling and distribution of maize flour in urban areas between 1967 and late 1990s. The NMC's network of silos and milling machines across the country were later privatized and bought by companies, including the three private sector giants in grain marketing and milling - Salim Salim Bakhresa (SSB), Mohamed Enterprises Tanzania Ltd (METL) and Export Trading Group (ETG). In the recent past, the government decided to establish a new state-owned enterprise, the Cereals and other Produce Board (CPB), using former NMC facilities in Iringa, Dodoma, Mwanza and Arusha, with a combined capacity of 240 MT per 24hours-day. The four giants control most of the processing facilities and storage silo infrastructure in the grain industry. Most of them are located in Dar es Salaam where there is a huge market and established infrastructure and have strong relationship with maize and paddy producers as well as flour and rice traders and outlets.

The large-scale milling companies struggle to serve remote locations due to transportation costs. SMEs thus, play a major role in the midstream of the milling value chain. Micro and small-scale millers are present all over the country. Their activities vary in function of the regional agriculture products. Majority of Tanzania's population use these mills for the household consumption particularly maize, rice, cassava, and millet. Indeed, they mill for small-scale farmers for home consumption and some local branded products (WFP Milling Assessment report, 2016).

5.6.2 Installed Milling Capacity (Maize and Rice)

The milling capacity for flour millers is largely concentrated at the top, with the leading 20 players contributing approximately 70-80% of Tanzania's milling capacity. At the other end of the market, small scale village mills operate across rural areas, with the country served by 45-50% rice mill and 70-80% maize mills largely catering to non-commercial consumption.

Installed capacities vary between mills and products. Murzah Wilmar Rice Millers Ltd in Morogoro region is the biggest rice mill in East Africa equipped with fully automated state of the art equipment producing around 300 metric ton of premium rice per day. Said Salim Bakhresa & Co Ltd has wheat mills in Dar es Salaam with a combined milling capacity of 2,500 tons per day and storage capacity of 160,000 tons. It also has a maize mill of 100 tons per day and a rice mill of 50 tons per day capacity. WFP Tanzania operates a mill in Dodoma with a milling capacity of 120 tons per day and a storage capacity of 9,800 tons. It mills maize as the main cereal for its own operations to feed refugees in the camps. Kibaigwa Flour Supplies Ltd. is located in Dodoma and has a claimed milling capacity of 100 MT per day as well as a storage capacity of 1,660 MT. It mainly mills maize but adapts its offer based on the order. Musoma Food Co. Ltd is one of the main mills located in Lake Zone. Its activity consists of maize milling with a monthly capacity of 5,100 MT.

5.6.3 Installed milling capacity for Animal Feeds

In Tanzania, animal feeds mill subsector, comprise of large well established millers operating in the outskirts of big cities like Arusha, Moshi, Dar es salaam and Iringa where they have easy access to raw materials and/or markets. Growing commercial poultry activities in the country is emerging to be the leading push factor for the growing investments in feed mills by large, medium, and small scale millers to the level of individuals for own consumption. There are currently 105 feed mills in Tanzania with installed capacity of about 2.0 million MT per annum (MLF, 2020) although the exact number keeps fluctuating. Top ten millers in the country with installed capacities have been shown in the table below:

Top 10 Animal feed millers in Tanzania – 2020

	Processor	Location	Installed Capacity (MT/day)
1	Silverlands Tanzania Limited	Iringa	320
2	Hill Animal Feeds	Dar es Salaam/Pwani	200
3	Falcon Animal Feeds	Dar es Salaam	170
4	Harsho Milling Company	Moshi, Kilimajaro	250
5	Backbone Tanzania	Dar es Salaam/Pwani	120
6	Tanbreed Poultry Co./ Interchick	Dar es Salaam	80
7	AKM Glitters Ltd	Dar es Salaam/ Pwani	120
8	Marenga Millers	Moshi, Kilimanjaro	150
9	Biotech Laboratories	Dar es Salaam	100
10	Kijenge Animal Feeds	Arusha	360

Source: Match Maker Associates Limited study: - (Professor Faustin P. Lekule and Edmond J Ringo, 2020)

Milling project to be installed will have a processing capacity of 240Mt per day and basing on the above data, it will be among top ten millers in the country by processing capacity and indeed the only giant miller in the Lake zone.

5.7 Market Analysis

5.7.1 Overview

Maize industry in Tanzania

Maize is the main staple crop in Tanzania. It is the major cereal consumed and estimated that the average consumption is 113kg per year per individual and over 80% of population depends on maize as its main food. The national maize consumption is estimated to be three million tons per year. Maize contributes 60% of dietary calories and more than 50% of utilizable protein to Tanzanians. The crop is cultivated on an average of two million hectares, which is about 45% of the cultivated area in the Country. The crop is grown mainly during the main season “masika” and also during the second season “vuli”.

Five years average production for 2016/17 – 2020/21 was 5.619 million MT and an average surplus of 280,950 MT (FEWS NET, 2021). Estimates suggest that there might be 150 million Tanzanians by 2050. They will all need to be fed. For maize, this means better quality farm produce, higher quality milling and better packaging. For livestock production, it means increased demand for feeds mill. Accordingly, the demand for maize as the dominant staple

food in Tanzania will grow remarkably. This creates a huge opportunity for existing and upcoming millers because maize products will be in high need in the coming years.

The Rice industry in Tanzania

Rice farming is the largest single use of land for producing food. It is nearly all (90%) produced in Asia. Rice production totaled 696 million tons in 2010. It is production is one of the most important economic activities on Earth.

In Tanzania rice is the third most important food crop in Tanzania after maize and cassava. According to official data, annual rice production doubled between 2001 and 2012 (as a result of expanded cultivation areas rather than increased unit yields) and now averages about 2 million tonnes. Smallholders have been growing the majority of rice (74 percent of the planted area) under rain-fed conditions. Rice grown from irrigated land accounted for 20 percent while large-scale production was only 6 percent.

On average, about 30 percent of rice is consumed by the producer households. Almost all the remainder is absorbed into the domestic market, with consumption highest in larger urban areas. Dar es Salaam is the principal end-market for about 60 percent of consumption, with Mbeya and Morogoro the main sources of supply.

Tanzanians generally prefer aromatic rice and most consumers purchase loose rice from traditional street retailers or farmers' markets. Supermarkets selling pre-packed rice are, as yet, just a small part of the food retail industry but there is notable increase year after year especially in urban areas. Consumers tend to shift from maize, cassava and sorghum to rice (for boiling) and wheat (as bakery products) as they become urbanized and as incomes rise. There is and will be markets for rice in the country and across the border mainly driven by an expanding middle class, rapid growing population and increased consumption by producers

The Animal Feed industry in Tanzania

Feed is one of the critical resources that determine the potential for growth in the livestock sector. Tanzania is endowed with abundant natural resources such as rangelands, grasslands, woodlands and bush and shrub lands in which a large resource base for animal feeds including natural forages and legumes are found. Additionally, the cultivated land is an important source of feeds in form of crop residues and later industrial by-products. The available feeds from these diverse sources support the country's livestock resource base estimated to be 35 million cattle, 25.7 million goats and 10.0 million sheep. Other livestock kept in the country include 2.4 million pigs, 72 million indigenous and commercial poultry, 0.6 million donkeys and 4.5 million ducks, guinea fowl, rabbits and other livestock species (National Bureau of Statistics 2012; Tanzania Livestock Sector Analysis 2016).

The main animal feeds resources available in Tanzania mainland are classified into roughages and concentrates. The roughages include pastures (natural and planted), trees, shrubs, conserved forage, crop residues and agro-industrial by-products. Concentrates include cereal grains and related by- products, agro-industrial by products, brewer's waste, plant protein seeds, seed cake and animal proteins (fish and blood meal). These feed resources are abundantly available during the wet season but inadequate in the dry season of the year.

Rising demand for animal feed remains the core driver of cereal consumption growth. Additional global coarse grain consumption amounts to 225 Mt over time, of which feed demand constitutes 70%, while more than 68Mt of additional oilseeds will be processed to feed, reflecting average annual growth rates of 1.6% p.a. and 1.47% p.a. respectively (OECD-FAO Agricultural Outlook 2015-2024; Agri-outlook 2015). Accordingly, demand for animal feeds will grow remarkably in the future because human population is increasing at a 3% rate per annum. This in turn increases the demand for meat as a source of staple which will go in hand with rising demand for animal feeds.

The estimated and reported animal feed deficit for Tanzania is 6.8 million tons per annum which is met by import creating market opportunity to KOM Foods to invest in animal feeds production plant. Apart from poultry feeds, demand for animal feeds is also projected to grow because cattle population are estimated to grow at 1.2 % per annum in the coming years and the average consumption per head per day is assumed to be 2.7 Kg.

5.7.2 Target Markets

The target market for the company's product is the people living in the six regions namely, Mwanza, Shinyanga, Geita, Simiyu, Dodoma, Manyara, Tabora and Singida. This includes employers and employees in various sectors like mining, transportation, health, schools etc. within the regions. The rural population will also provide market for the maize flour and rice project. Furthermore, there is the opportunity to export the maize flour and rice to the country of Democratic Republic of Congo and East African Countries.

5.7.3 Competition

Competition will come from giant millers who have established milling facilities, known brand, distribution network and a successful model for raw material supplies. Will also come from the mass of traditional millers who have been running for years and serving customers within their localities. Majority of Tanzania's population use these mills for the household consumption particularly maize, rice, cassava, and millet, indeed, they mill for small-scale farmers for home consumption and some local branded products

Envisaged project will be established in its own territory and will be able to capitalize on the market proximity advantage as compared to the giant who are mostly located in Dar es Salaam. The economy of scale and processing efficiency will give competing edge against small scale millers. Own storage facilities will enable the company to buy during the harvest and stock enough raw materials. Competing advantages will come from

a. Location:

Kahama is located near the maize and paddy production Regions of Shinyanga, Tabora, Simiyu, Katavi, Singida and Kigoma, which have enough production to supply required maize and paddy at cheaper price due to savings in transportation costs. Equally distribution of finished products to target markets will benefits from the market proximity.

b. Quality of Product:

Technologies to be deployed have number of added machine lines to deliver consistency in the quality of the product. Quality is also guaranteed by the automated processes. Some processes like Degermination in maize milling will enhance shelf life of the flour also make it fat free and thus allowing for distribution to a distant market and preferred by health conscious people.

c. Marketing Channels:

KOM Foods Company will purchase maize and paddy directly from local farmers thus cutting off the traders from the market chain. This marketing strategy would eventually reduce the retail price of maize flour and rice, thus enabling the product to be much more competitive in the market. Processing efficiency to be delivered by the technology to be deployed will also enable the company to have lower costs of operation.

5.7.4 Market Analysis for Animal feeds

Tanzania is endowed with 35 million cattle, 25.7 million goats, 10 million sheep, 2.4 million pigs and 72 million poultry. But, due to decreasing size of grazing land caused by the expansion of farmlands and lack of modern animal feeding system, the livestock population of the region is increasing at a very low rate; and in some areas, there is an actual decline of the livestock population.

The estimated and reported animal feed deficit for Tanzania is 6.8 million tons per annum which is met by import creating market opportunity to KOM to invest in animal feeds production plant. Demand for animal feeds is projected to grow because cattle population are estimated to grow at 1.2 % per annum in the coming years and the average consumption per head per day is assumed to be 2.7 Kg. This is an opportunity to increase investments in the production of feeds.

5.7.5 Market Analysis for Maize Flour and Rice

Based on the current per capital maize flour and rice consumption of 135kg and 73kg per annum translate demand for maize flour and rice in Tanzania to be 7.965 million tons and 4.307 million tons respectively which are met by local production and imports. The company will mainly sell maize flour in the local market because maize flour is main staple food for Tanzania.

The consumption of rice in the East African Countries has been steadily growing over the past 10 years (2006-2016) at average rate of 8%. The growth in consumption is mainly driven by an expanding middle class, rapid growing population and increased consumption by producers. The total consumption for rice East African Countries in 2016 was 3,000,000 tons and was projected to increase by 54% (i.e. 4.62 million tons) in the year 2020 (Source: USDA and FAO 2018)

5.7.6 Marketing/Sales Strategies

KOM Food marketing strategy will be hinged on providing standard rice, maize flour and animal feeds milling business services as well as additional related services to customers. It is intended to cultivate a loyal customer base where it will not only increase customer retention but also attract new customers. Strategies are also intended to ensure engagement of existing and potential customers on social media platforms

and also from time to time give out tips and suggestions that will ensure the business of clients improve. It is also intended to engage in massive publicity through website as well as forums so as to garner more customers.

KOM Food will deploy the following marketing strategies to sell animal feeds, rice and maize flour in the local and international markets:

a. Introduce animal feeds, maize flour and rice business officially to dealers, distributors, wholesalers and retailers both locally and internationally by meeting/communicating with them and telling them the benefits they stand to gain in using the company products/services.
b. Opening many animal feeds, rice and maize flour storage facilities as possible spread across several strategic locations in Tanzania.
c. Make use of official website in promoting animal feeds, rice and maize flour project to ensure that it tops the online search for potential customers using the brands name of KOM
d. Make use of social media platforms such as LinkedIn, twitter and Face book to promote products.
e. Ensure that animal feeds, rice and maize flour milling project is advertised on radio, television and even in local and international newspapers.
f. Meeting and exceeding the expectations of clients and through improving the performance of animal feeds, rice and maize flour in the market.
g. Using attractive billboards and banners to ensure that potential customers are aware of company products.
h. Ensure that the company deploys direct marketing approach to customers.

5.7 Using global strategic partners to market animal feeds, rice and maize flour internationally

5.8 Projects Feasibility Analysis

Due to diversity in the involved subprojects, the analysis sections covering subproject components, industry structural set-up, production; and competition; process and technology and operations economics will be analyzed separately for each subproject. Going forward the document will be organized as follows:

- Maize Project Feasibility Analysis
- Rice Project Feasibility Analysis
- Animal Feeds Project Feasibility Analysis

6.0 MAIZE MILLING

6.7 Introduction

Maize is a staple food for many people around the world. In Tanzania it is the dominant cereal crop in almost every part of the country. It contributes 60% of dietary calories and more than 50% of utilizable protein. The national maize consumption is estimated to be three million tons per year. The crop is cultivated on an average of two million hectares, which is about 45% of the cultivated area in the Country.

Maize is Tanzania's most produced and most important cereal crop in terms of food security. Maize production increased by 3%, from 6.1 million tonnes in 2015 to 6.3 million tonnes in 2019. Tanzania consumes 90% of its maize production and exports the rest mainly to Kenya (80%), as well as Somalia, Burundi, South Sudan, and Rwanda. Smallholders produce over 95% of Tanzania's maize. The majority of smallholders operate at a subsistence rather than commercial level, with an average landholding of about 0.7 hectares. Approximately half of all the maize produced in Tanzania comes from the Southern Highlands and is usually grown under low input, rain fed conditions.

6.8 Project Description

6.8.1 Overview

This project targets to deploy a high technology state-of-art milling and packaging plant that can process 144 tons of dried maize per day to produce high quality maize flour for human consumption and use its by-product maize bran to produce animal feeds. The processed 144 tons of dry maize will generate 108 tons of maize flour per day equivalent to 80% recovery and 25.92 tons of maize bran per day equivalent to 18% and 10.08 tons of waste equivalents to 7%. The project's annual requirement for dried maize will be 43,200 tons. It will have own storage comprising of 8 Silos each with a storage capacity of 5000MT.

6.9 Maize Production Situational Analysis

6.9.1 Production in Tanzania

Tanzania is among the countries in East Africa endowed with fertile and ample land for maize production capable of feeding the nation and the neighbours. Existing data shows that in 2011 about 6.59 million metric tonnes (MT) of maize was grown in Tanzania of which 6.4 million MT was consumed and 114,100 MT was exported. Approximately 12,000 MT was imported and 73,800 MT was used for next season's seed (FAO 2011). Production increased by 3% from 6.1 million in 2015 to 6.2 million MT in 2019 (BOT 2020). Five years average production for 2016/17 – 2020/21 was 5.619 million MT and average surplus of 280,950 MT (FEWS NET, 2021). Based on the available data, National demand for maize will continue to grow in the future. Estimates suggest that there might be 150 million Tanzanians by 2050 that will all need to be fed. Considering maize is the main staple food for majority of the population and also considering that there is arable land for production of the required maize, the output will continue to grow years after year.

6.9.2 Maize Production in EAC countries

Domestic maize production plays an important role in maize supply in East Africa. Its main substitutes include wheat, sorghum, millet, and rice, as well as teff in Ethiopia. East Africa, as a region, produces a one million MT tradable surplus on average. Maize imports from international markets are rare but do take place, especially when there are bans or restrictions on interregional trade or when production is uncertain or well below average in the surplus producing countries of Tanzania and Uganda. Tanzania and Ethiopia account for 37 and 32 percent of the tradable maize, respectively. Hence the net regional surplus is expected to be 1.8 million MT, which is 47 and 17 percent higher than 2019/20 and recent five-year average levels. Tanzania, Ethiopia, and Uganda are expected to remain the main source of maize in the East Africa region because of the availability of tradable stocks at lower prices.

6.9.3 Production in EAC countries, Somalia and Ethiopia

Maize 5-year Average 2016/2017 to 2020/2021 in thousands MT

	Production	Consumption	Other Uses	Domestic Demand	Domestic Balance/ Deficit)	Self Sufficiency %age
Burundi	143	149	11	160	-17	89%
Ethiopia	8,212	7,283	924	8,207	5	100%
Kenya	3,229	3340	452	3,792	-563	85%
Rwanda	559	550	78	628	-69	89%
Somalia	103	107	5	112	-9	92%
South Sudan	249	317	12	329	-80	76%
Tanzania	5619	4589	787	5376	243	105%
Uganda	2,611	1982	366	2348	263	111%
Region	20,726	19,493	2,635	22,128	-1402	94%

Source: FEWS NET estimates based on data from regional governments and multi-agency assessments

6.9.4 Maize Global Production

The global maize production amounts to an annual average of 1,127 million Metric Tons (2016–18, OECD/FAO, 2019). Leading global producer is USA which in 2019 season produced 404.9 million MT followed by China 268.2 million MT (FAO, 2020). With a production of 6.2million MT, Tanzania was ranked 21st world producer of maize (FAO, 2020).

6.9.5 Maize Market Analysis

Maize and Rice are the most important staple food in the Eastern Africa region and the most widely traded agricultural commodity. Maize demand in the EAC stood at 12.6 million MT in 2015 and was expected to increase by 28% to 16.0 million by 2020.

Maize consumption in the EAC has been on an upward trend driven by increasing consumption in all EAC and SADC countries. Maize represents a larger share of household diet in Kenya than in the other East African countries. Per capita consumption currently stands at 133 kg/person/year, compared to 113 kg for Tanzania, 31 kg for Uganda and 14.1kg for Rwanda.

EAC has recorded an increasing maize consumption which is traced in combination of factors including: population growth, urbanization, changing consumer preferences and economic development. This is a big incentive to increase production and substitute imports which to a greater extent with an exception of Tanzania and Uganda, imports supplement domestic production.

6.10 Maize Flour Milling

6.10.1 Overview

The manufacturing capacity for flour millers is largely concentrated at the top, with the leading 20 players contributing approximately 70-80% of Tanzania's milling capacity. At the other end

of the market, small scale village mills operate across rural areas, with the country served by 70-80% maize mills largely catering to non-commercial consumption.

On average, large scale millers have a processing capacity of 1,000 tons per day and an average storage capacity of 80,000 tons, though these figures are skewed by the largest millers. Medium sized millers have average processing capacity of 300 tons a day and an average storage capacity of 10,000 tons whiles the milling capacity of small millers approximately 50 tons a day. The combined output of the two leading milling companies constitutes 40-45% of the total national production. Maize is the most commonly milled grain with an estimated total installed production capacity of 1.62 million tons of processed maize per annum.

In addition, national Gross Domestic Product (GDP) is growing along with purchasing power which together will stimulate increase of food demand. For maize flour, this means a better quality farm produce, higher quality milling and better packaging. This is a good opportunity for existing and upcoming millers because maize products will be in high need for some years to come. To further increase maize productivity, Tanzania has started trials for Genetically Modified Organism (GMO) maize, aimed at demonstrating whether the GMO crop can be effectively grown in the country (Bank of Tanzania (BoT), Food and Agriculture Organization of the United Nations 24 September 2020). Equally it creates opportunities to invest in milling to tape existing and future opportunities.

6.5 Process and Technology

6.5.1 Processing of Maize Flour

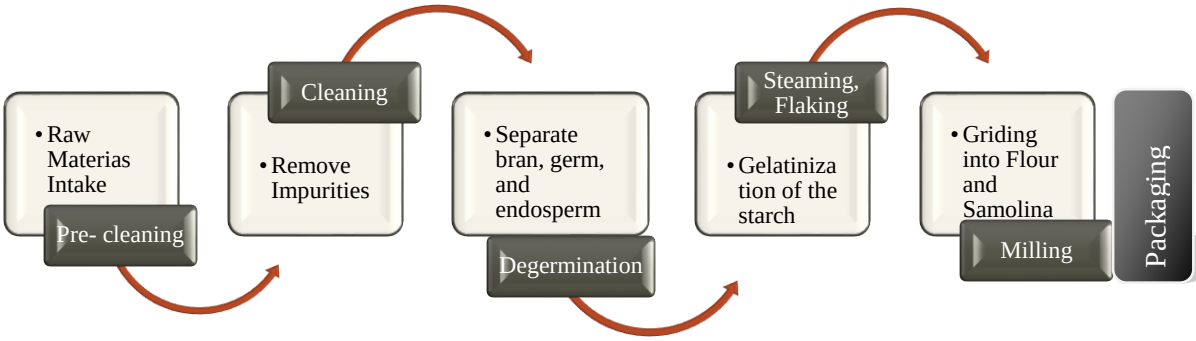
General process flow description

The maize flour milling process is mechanical and consists of several processes. It starts by the cleaning of the maize and ends by its grinding and sieving into flour. The process starts by cleaning which is done by removing all the foreign material like sand, grit and dirt that may be present in the maize. These foreign materials and any other impurity that may be harmful to humans after consumption of the flour or can damage the machine during maize flour processing are removed. This process ensures superior flour quality. All these foreign materials are removed by a sieving process where all course particles are removed. Different kinds of sieves are used which ensures all materials bigger or smaller than the maize itself is left behind

After cleaning, the second step is maize conditioning. This is the addition of moisture to it and allowing it to soak for some time. This allows the bran to be peeled off easily. The maize is then de-germinated and polished prior to flour milling. This is the separation of the germ meal, endosperm and bran. This process results in very high quality maize meal. When the bran, endosperm and gem are ground together, the resulting maize meal is considered poor quality. This is because it has a shorter shelf life, gives the porridge a yellow appearance and gives the eater a bloated feeling. The maize is then passed through a flour milling machines where it is grounded up into flour. After the milling, the last step of the maize flour production is sieving the flour. Flour of the desired quality is retrieved and the residue is returned in the machine for further milling.

The desired project will have fully automated machines to deliver efficiency (labour and energy consumption) and ensure quality of the final maize products. The Buhler technology has inbuilt process to manage interaction of each step to ensure ideal results. Intake and cleaning remove impurities, defected material, and fungal contaminations. Degermination efficiently separates bran, germ, and endosperm for subsequent milling.

Buhler Maize Flour Process Flow



- *Cleaning and separating*

The separator is equipped with sieves that are moved back and forth by two vibrators. Its excellent separating system and easy to change sieves result in a high throughput capacity.

- *Degerminator*

The degerminator separates bran, germ, and endosperm to achieve maximum yield and top-quality end products. An intensive maize treatment by the roll rotor, and the specially structured sieve jacket, control the fat content of the end products. The machines have in-built capabilities to handle soft, medium-hard, and hard maize varieties. In addition, the extraction of whole germs is possible, especially for subsequent oil extraction.

- *Flaking roller mill*

Together with the steamer, the flaking roller mill is responsible for the gelatinization of the starch. The flaking roller mill has been specially developed for the flaking of various types of grain including maize grits. A roll temperature control unit, combined with peripherally drilled rolls, ensures a consistent roll temperature. This contributes significantly to uniformly high flake quality

- *Roller mill grinding*

Roller mills grind degerminated maize grits into semolina and flour. Robust machine controls, compact roll packs and direct aspiration system lead to maximum operating reliability for consistent grinding quality and dust-free operation. Its optimal geometry and manual roll removal device meet the highest sanitation standards.

- *Sieving and grading*

The plansifter is characterized by it sifting, sorting, and classifying flexibility. NOVA sieves and cleaners made of special plastic reach every corner, enabling easy machine cleaning. An efficient separation of coarse and floury maize particles results in high throughput and premium product quality. In addition, the greater sifting area and optimal space utilization leads to high sifting performance. High-quality interior materials provide safe operation and reduced energy consumption.

- *Purifying*

The purifier efficiently sieves and separates bran from semolina. The ground maize particles are cleaned to reduce specks content for pure, high-quality semolina as intermediate or final product. Reliable feeding through a feed gate enables a continuous process and reproducible product quality. Metal sieve frames with brush cleaners and easy cleaning accessibility prevent product deposits for high hygiene standards.

Buhler Technology unique value propositions for maize milling:

- Efficient product handling for maximum yield – fully automated process
- Controlled fat content of grits and flour
- Top-class end products of consistent quality
- Extended shelf-life and food safety
- Reliable automation which life of enhances productivity,
- Reduced energy consumption,
- Minimum maintenance
- Long life of machines
- Online support

6.6 Project Financial Model

6.6.1 Investment costs

Total project costs will be TZS 34,049,987,270.00 which will cover machineries, land and building, installation costs, supporting infrastructure and allocated amount for shared facilities. Amount required to completed the projected is TZS 18,603,722,403.00 which details have been presented in the cash flow and is part of the of the pooled facility of TZS 42,921,241,459.00 to be sourced from the financier.

6.6.2 Projected Income (2024 to 2034)

Project Revenues/Sales are expected to be growing by 12% per year. Operating expenses are projected to decrease by an average of 13% every year. Net profit after tax is expected to increase by an average of 18% yearly basing on the projections presented below:

DESCRIPTION	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	20
	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'00
Sales Revenue:											
Maize flour 5Kg Bags	3,732,480	5,520,338	6,213,236	6,733,594	7,575,293	8,035,871	8,406,757	9,110,823	9,511,700	10,036,483	10,57
Maize flour 10Kg Bags	3,594,240	5,315,881	5,983,116	6,484,202	7,294,727	7,738,246	8,095,396	8,773,385	9,159,414	9,664,761	10,18
Maize flour 25Kg Bags	3,317,760	4,906,967	5,522,876	5,985,417	6,733,594	7,142,996	7,472,673	8,098,510	8,454,844	8,921,318	9,40
Maize flour 50Kg Bags	3,179,520	4,702,510	5,292,756	5,736,025	6,453,028	6,845,372	7,161,312	7,761,072	8,102,559	8,549,597	9,01
Maize Husk	3,283,200	4,855,853	5,465,346	5,923,069	6,663,452	7,068,590	7,394,833	8,014,150	8,366,773	8,828,388	9,30
Total	17,107,200	25,301,549	28,477,329	30,862,306	34,720,094	36,831,076	38,530,971	41,757,940	43,595,290	46,000,547	48,48
Cost of Goods Sold	12,039,144	17,173,153	18,854,217	19,950,277	21,778,358	22,567,409	23,068,731	24,393,338	25,209,795	26,439,831	27,81
Gross Margin	5,068,056	8,128,396	9,623,112	10,912,029	12,941,736	14,263,667	15,462,240	17,364,602	18,385,495	19,560,716	20,67
Administration and Marketing Expenses	-	-	-	-	-	-	-	-	-	-	
Marketing Expenses	318,689	488,767	501,902	514,011	524,291	534,777	545,472	556,382	567,509	578,859	59
Administration Salaries	872,861	905,823	923,939	942,418	961,266	980,492	1,000,102	1,020,104	1,040,506	1,061,316	1,08
Interest on Short Term Debt	78,694	776,787	303,854	297,777	220,355	163,063	120,666	89,293	66,077	48,897	3
Interest on Long Term Debt	31,953	1,889,615	1,901,416	1,721,117	1,522,622	1,305,729	1,071,747	813,265	527,715	212,265	
Total Admin & Marketing Expenses	1,302,197	4,060,991	3,631,111	3,475,323	3,228,534	2,984,060	2,737,987	2,479,043	2,201,807	1,901,337	1,71
Income Before Taxes	3,765,859	4,067,404	5,992,001	7,436,706	9,713,202	11,279,606	12,724,253	14,885,559	16,183,688	17,659,379	18,96
Income Taxes	1,129,758	1,220,221	1,797,600	2,231,012	2,913,961	3,383,882	3,817,276	4,465,668	4,855,106	5,297,814	5,68
Net Income (Loss)	2,636,101	2,847,183	4,194,401	5,205,694	6,799,242	7,895,724	8,906,977	10,419,892	11,328,582	12,361,565	13,27
Beginning Retained Earnings	-	2,636,101	5,483,284	9,677,685	14,883,379	21,682,621	29,578,345	38,485,322	48,905,214	60,233,795	72,59
Net Income (Loss)	2,636,101	2,847,183	4,194,401	5,205,694	6,799,242	7,895,724	8,906,977	10,419,892	11,328,582	12,361,565	13,27
End Retained Earnings	2,636,101	5,483,284	9,677,685	14,883,379	21,682,621	29,578,345	38,485,322	48,905,214	60,233,795	72,595,361	85,86
Profit	2,636,101	2,847,183	4,194,401	5,205,694	6,799,242	7,895,724	8,906,977	10,419,892	11,328,582	12,361,565	13,27
Depreciation	(1,710,488)	(3,339,282)	(4,917,532)	(6,450,797)	(7,932,840)	(9,373,410)	(10,769,592)	(12,522,605)	(14,266,765)	(16,460,760)	(19,22
profit plus depreciation	**4,346,589**	**6,186,465**	**9,111,933**	**11,656,492**	**14,732,082**	**17,269,134**	**19,676,569**	**22,942,497**	**25,595,346**	**28,822,325**	**32,502**
Movement											
Revenue		48%	13%	8%	13%	6%	5%	8%	4%	6%	
Operating Expenses		212%	-11%	-4%	-7%	-8%	-8%	-9%	-11%	-14%	
Pat		8%	47%	24%	31%	16%	13%	17%	9%	9%	

6.6.3 Projected Financial Position (2024 to 2034)

Most of the balance sheet items will keep on increasing as the business continues to operate on its normal operating cycle; however, there is a plan of purchasing a warehouse within the coming two years. Currently the only non-current assets of the company are Buildings & Infrastructure and production Equipment. Depreciation rates will continue to be at 20% and 25% respectively annually. Net worth of the business will be growing with an average growth of 38% as shown in the projected Statement of financial position 2024 - 2034:

DESCRIPTION	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'
Assets											
Current Assets:											
Cash	98,194	228,479	267,411	1,144,317	1,329,319	1,603,658	43,915	681,238	774,819	520,180	4,414,778
Accounts Receivable	3,506,976	1,303,283	2,323,750	3,086,231	5,555,215	9,428,755	10,018,053	16,703,176	15,694,304	23,000,274	14,545,373
Total Inventories	4,193,188	6,360,983	6,577,053	6,647,024	7,253,518	7,472,829	7,594,297	8,060,536	8,245,927	8,562,352	8,889,131
Total Current Assets	7,798,358	7,892,745	9,168,214	10,877,571	14,138,053	18,505,243	17,656,264	25,444,951	24,715,050	32,082,805	27,849,282
Long-Term Assets:	-	-	-	-	-	-	-	-	-	-	-
Buildings, Machinery & Equipment	34,093,784	34,136,031	34,901,587	34,989,499	35,168,844	35,351,775	43,591,868	44,932,693	55,481,326	59,166,725	79,023,241
Accumulated C.C.A.	(1,710,488)	(3,339,282)	(4,917,532)	(6,450,797)	(7,932,840)	(9,373,410)	(10,769,592)	(12,522,605)	(14,266,765)	(16,460,760)	(19,228,708)
Land	224,000	224,000	224,000	224,000	224,000	224,000	224,000	224,000	224,000	224,000	224,000
Total Long-Term Assets	32,607,296	31,020,748	30,208,055	28,762,702	27,460,003	26,202,366	33,046,276	32,634,088	41,438,561	42,929,966	60,018,533
Total Assets	40,405,655	38,913,493	39,376,270	39,640,272	41,598,056	44,707,608	50,702,540	58,079,038	66,153,611	75,012,771	87,867,815
Liabilities	-	-	-	-	-	-	-	-	-	-	-
Current Liabilities:	-	-	-	-	-	-	-	-	-	-	-
Accounts Payable	390,985	263,409	286,769	299,551	323,473	331,974	336,604	351,840	355,779	362,958	371,621
Overdraft	5,167,586	4,340,772	4,253,957	3,147,928	2,329,467	1,723,805	1,275,616	943,956	698,527	516,910	382,514
Long-Term Liabilities	-	-	-	-	-	-	-	-	-	-	-
Long Term Debt	30,966,022	27,581,068	23,912,899	20,064,454	16,017,536	11,828,524	9,360,038	6,633,069	3,620,550	292,582	-
Total Liabilities	36,524,593	32,185,249	28,453,625	23,511,933	18,670,475	13,884,303	10,972,258	7,928,865	4,674,856	1,172,450	754,135
Owner Equity	-	-	-	-	-	-	-	-	-	-	-
Owner Equity	1,244,960	1,244,960	1,244,960	1,244,960	1,244,960	1,244,960	1,244,960	1,244,960	1,244,960	1,244,960	1,244,960
Retained Earnings	2,636,101	5,483,284	9,677,685	14,883,379	21,682,621	29,578,345	38,485,322	48,905,214	60,233,795	72,595,361	85,868,720
Total Owner Equity	3,881,061	6,728,244	10,922,645	16,128,339	22,927,581	30,823,305	39,730,282	50,150,174	61,478,755	73,840,320	87,113,680
Total Liabilities & Owner Equity	40,405,655	38,913,493	39,376,270	39,640,272	41,598,056	44,707,608	50,702,540	58,079,038	66,153,611	75,012,771	87,867,815

6.6.4 Liquidity

Projected liquidity position of the business is quite healthy such that it will be able to repay the bank facility being applied for, while at the same time meeting all its other financial obligations of operating the business [Annex: cash flow projections attached]. The requested financing will help to boost business working capital and meet customers' expectations.

Assumptions:

Revenue

- It is assumed that the business turnover will increase by an average of 12% over the loan duration.
- Net profit will increase by 18% as a result of economies of scale due to bulk purchases in harvesting time and discounts from suppliers
- Legal and regulatory framework remain stable over the loan tenor
- Exchange rate will remain fairly stable at the current rate

Finance cost

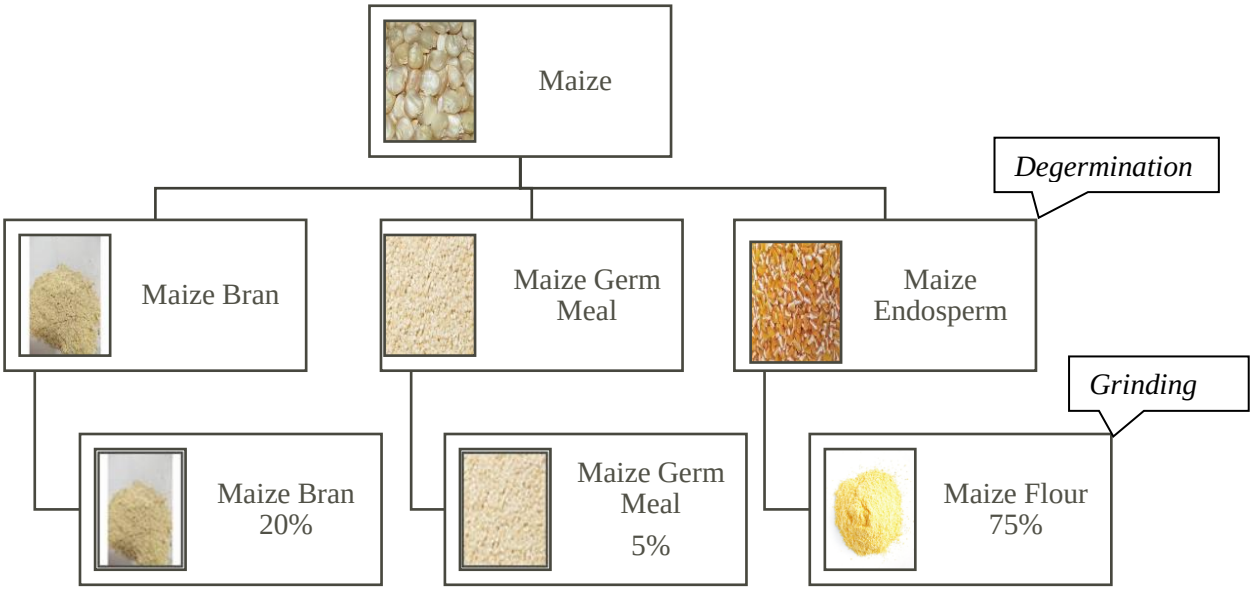
- Interest from this credit will be 4% per annum.
- Loan processing fee will remain at 1.5% once off charge.
- Insurance remains at 1.25% once off
- Other bank charges like ledger fees and withdrawal charges remain the same.

Operating expenses

- They will increase by 2% as a result of the growth of business volumes e.g. transport, communication, rent etc.

6.6.5 Maize Flour Business Model

The company will purchase maize during a low-price season and process it to make maize flour during high demand season where prices of maize meal are high and make a reasonable profit. Milling process will result to 75% maize flour and 25% by-products as shown below:



The company will sell different varieties of maize in terms of processing levels as per the breakdown below: -

- Maize flour 5kg Bags
- Maize flour 10Kg Bags
- Maize flour 25Kg Bags
- Maize flour 50Kg Bags
- Maize Husk 5 Kg Bags

Assumptions

- The purchase amount per year will be 24,336,600 kg of maize
- One kg of maize will be purchased at TZS 400
- One kg of flour will be sold at TZS 800 (worst case scenario).
- One kg of husks will be sold at TZS 190/= (worst case scenario).
- Its by-products Maize Bran and Gem meal will be transferred to animal feed mills at a market price.

6.7 Maize Project Investment analysis

The net present value of this project is positive which shows that, there will be positive cash inflows in the future. The internal rate of return will be 32%, which shows the project will generate profits. Future cash inflows have been discounted by 12%. The payback period of the loan facility is 5 years and 3 months.

YEARS		**CASHFLOW (TSHS)**	**PRESENT VALUE (TSHS)**
2023	0	(34,064,792)	(34,064,792)
2024	1	4,346,589	3,880,883
2025	2	6,186,465	4,931,812
2026	3	9,111,933	6,485,694
2027	4	11,656,492	7,407,911
2028	5	14,732,082	8,359,379
2029	6	17,269,134	8,749,081
2030	7	19,676,569	8,900,681
2031	8	22,942,497	9,266,090
2032	9	25,595,346	9,229,939
2033	10	28,822,325	9,280,017
2034	11	32,502,068	9,343,568
2035	12	36,694,557	9,418,579
DISCOUNT RATE	12%		
NPV			61,188,841
IRR			32%
Discounted Payback Period (years)			5.34

6.8 Maize Project Breakeven Point

This project will break even in five years and three months' time after producing 173,303 units which will have a Break-Even value of 3,269,908 /=

Break Even Point (Unit)				
	Total Fixed Cost TSHS'000'	**Weighted Average Contribution Margin/Unit**	**Break Even Point (Unit)**	**Break Even Value TSHS'000'**
	2,950,893	7.4	173,303	3,269,908

7.0 RICE MILLING

7.1 Introduction

Globally, rice is a major food crop preferred by nearly half of the world's population (Patunru & Ilman, 2020). In Sub-Saharan Africa, Tanzania ranks second after Madagascar in terms of rice production and consumption (Kadigi et al., 2020). Consistently, rice is the third if not second leading food crop in Tanzania after maize and cassava. Its annual production is estimated to be 2.2 million metric tons accounting for about three-quarters of the total rice produced in East Africa – making the country the top producer in the region (URT, 2019). Importantly, the rice sub sector is a significant source of food nutrition, employment and income to many households and a potential source of foreign exchange earnings to the country. The development of the rice sub-sector in Tanzania benefits from several natural endowments including the availability of 21 million hectares (roughly half of all arable land) that's suitable

for rice cultivation; availability of plenty water resources suitable for irrigation such as lakes, rivers, ground water; increased urbanization as well as growing domestic and regional demand

7.2 Project Description

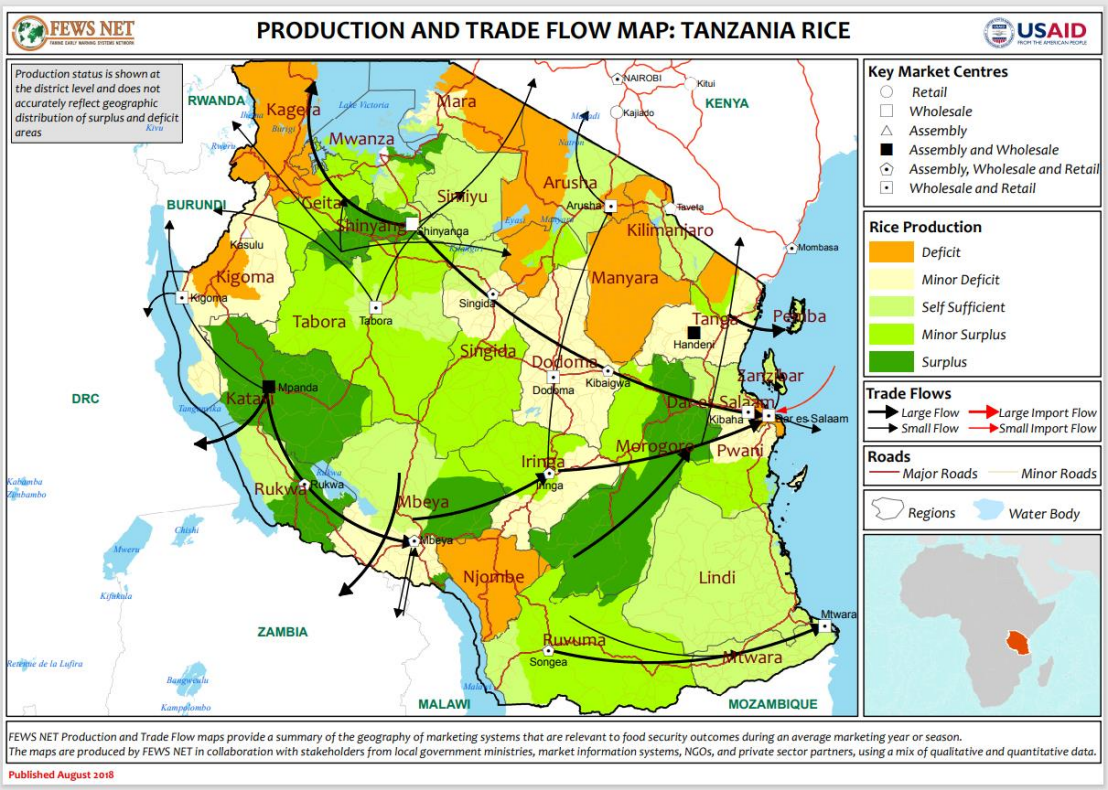
Rice is a staple food for many people around the world. In Tanzania, rice is the second most important food and commercial crop after maize with significant national importance as a source of employment, income, and food security for millions of rural households. The country has a rapidly growing population and a political ambition to sustain rice self-sufficiency, with a margin to export to neighboring countries in the region, through raising productivity and expanding production to areas with high potential for rice production

This project targets to deploy a high technology state-of-art milling and packaging plant that can process 192 tons of rice paddy per day. The processed 192 tons of rice paddy will generate 92 tons of head rice, 42 MT broken rice, and 38 MT rice bran per day equivalent to 48% recovery for head rice, 22% broken rice and 7% rice bran. The project's annual requirement for rice paddy will be 57,600 MT of rice paddy assuming 300 days of operation.

7.3 Production Situational Analysis

More than a hundred countries throughout the world are engaged in rice production whereby the total global production is estimated to be 715 million tons of paddy equivalents to 480 million tons of milled rice per annum (URT, 2019). The fastest growing demand for rice in the world has been noted in Africa, owing to the rapid population growth of about 4 percent per annum. (URT, 2019). Tanzania is the leading producer of rice in East Africa and ranks second in Sub Saharan Africa after Madagascar. The country has witnessed an impressive progress of rice production to 2.2 million tons in 2017/18 up from 1.6 million tons in the season 2016/17 equivalent to 38 percent increase while rice consumption increased from 818,699 tons in 2011/12 to 976,925 tons in 2015/16. Consistently, the trend show Tanzania has also attained surplus output over the past seasons

About 80 percent of the rice in Tanzania is produced by small-scale farmers with plot sizes ranging 0.5 hectares to 3 hectares while marketing is dominantly done by middlemen and millers (Kilima, 2006; BarreiroHurle, 2012; URT, 2019). According to Wilson and Lewis (2015), rice is produced by nearly 18 percent of Tanzanian households, and about 30 percent of the harvested rice is consumed domestically within the country. However, large rice consumption is realized in Tanzania's more populous urban centres with Dar es Salaam city alone accounting for 60 percent of the entire national consumption (Wilson and Lewis, 2015). Rice produced in Tanzania is of different variety depending on the areas of cultivation and climate conditions of that particular area. Hence, its rice differs in terms of aroma, taste, appearance, texture and size. The major paddy producing regions are Morogoro, Mbeya, Mwanza, Shinyanga, Tabora and Rukwa – which account for about three-quarters of rice produced in the country



The Government through its budget for the financial year 2021/2022 stated plans to boost rice production by 75 per cent to 100 per cent, progressively. Plans include establishment of 28 irrigation schemes and administering availability to farmers of fertilisers, high yield seeds, extension services, access to mechanization, education as regards to better land and water uses. Data issued by the Ministry of agriculture shows that in 2020/21 season, Tanzania rice production was 2,579,535 tonnes. With the demand of 1,091,778 tonnes the country is achieved a surplus of 1,537,741 metric tonnes with the self-sufficiency ratio for rice being 241 per cent, the highest for any cereals. The country reached rice production surplus by cultivating only about 4 per cent of the arable land suitable for rice production. The increase in production is also associated with the increase in yield.

In 2018/19 Tanzania produced 2,009,174 metric tonnes of rice while the requirement was 999,543 tonnes. The country, then, achieved a surplus of 1,009,631 tonnes. In the 2019/20 farming season production of rice reached a peak of 3,038,080 tonnes against demands of 1,094,119. The country had a cool surplus of 1,943,961 tonnes (budget speech, 2020/21). Country's rice production has been on increasing trend since 2010/11season when it hits one million metric tonnes mark for the first time. It reached two million mark in the 2015/16 season and has since continued to increase. It has been however noted that as a critical step to the sector development, processing of rice should also improve, with the introduction of better technology to improve quality in order to be able to enter international markets at a premium

7.4 Rice Demand

The annual consumption of rice per person in Tanzania is estimated at 25 kilograms which is below the average annual consumption per person in Sub Saharan Africa estimated to be 40kg (URT, 2019). Above all, statistics reveal that Tanzania's rice production is relatively higher

than its consumption where the country experienced an increase in surplus production by 900,847 tons between 2011/12 and 2015/16 thus marking the economy self-sufficient.
However, the surplus is mostly exported to neighboring regional markets including Uganda, Zambia. Exports of rice jumped from $97.4 in the year ending September 2020 to $303.4 in the year ending September 2021, according to the Monthly Economic Review for October 2021 prepared and released by the Bank of Tanzania (BoT, 2021).

There is an understanding that increased production in rice would not only help Tanzania solve its food supply issues but also diversify its exports basket. Unlike maize, rice is the staple and can easily be turned into a staple of billions of people worldwide. Rice is also relatively less affected by storage pests as compared to other cereal grains such as maize, sorghum, millet and wheat. The USDA, which closely watches African food production and consumption trends, says in Sub-Saharan Africa (SSA) rice has transitioned from luxury and holiday food to a major staple food and growing source of calories, due to growing economies, increasing urbanization, rising household incomes, improvements in infrastructure, and greater market access.

This means rice demand in SSA is going to push imports to 15.4 million tonnes by 2026. Whichever one looks at it, this is the ready market for Tanzania's rice, if production is boosted in the coming years, taking into consideration the fact that Tanzania has ratified and is set to enjoy the benefits of the Africa Continental Free Trade Area. Malawi, Zambia, DRC Congo and Kenya have been traditional markets for Tanzania's rice, but now Africa is going to be the ready market waiting for the products.

7.5 Rice milling process

7.5.1 Overview

Rice milling is a very important process in post-production, as this is when the husk and bran layers are removed to then produce edible white rice that is free of impurities. However, milling of the rice is usually dependent on the preference of the customers, which would invariably affect how many milling processes the rice would have to go through.

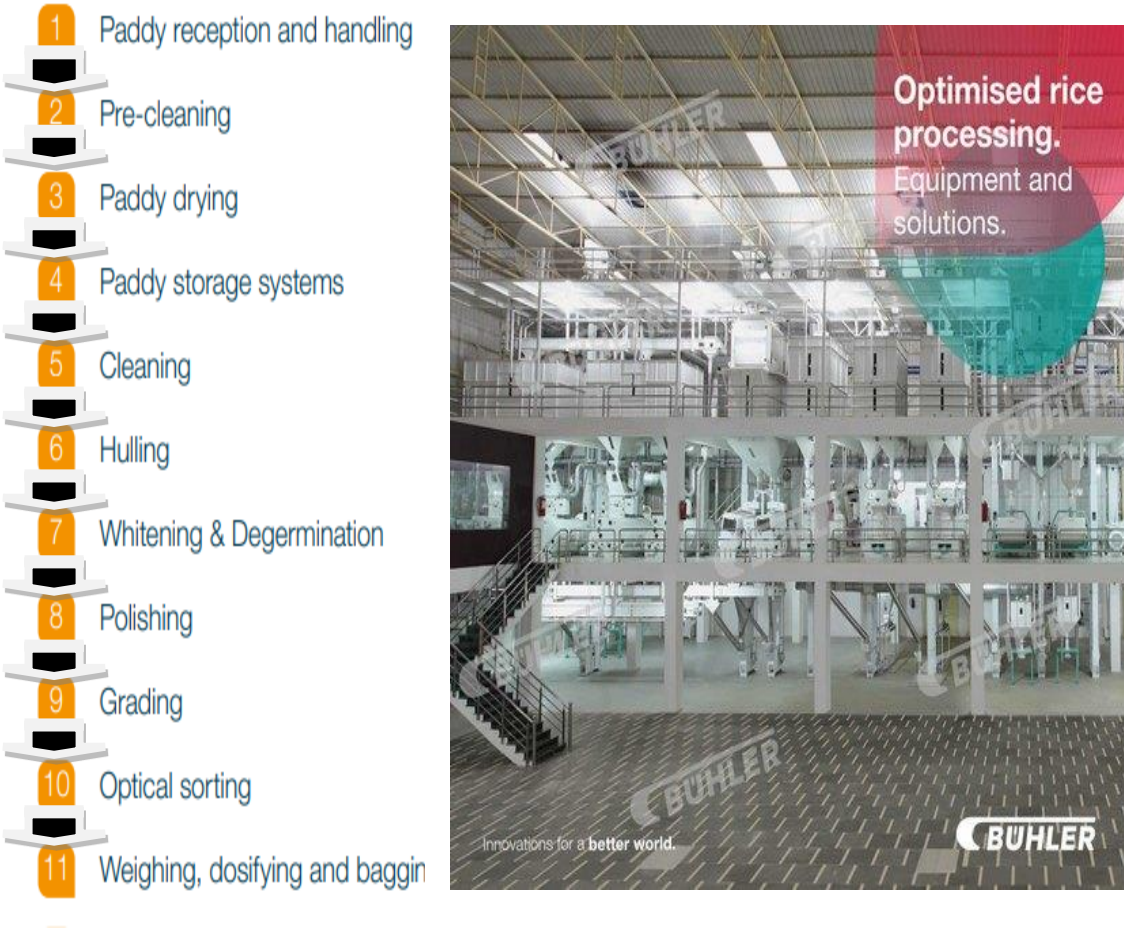
Rice Milling is the process wherein the rice grain is transformed into a form suitable for human consumption. After harvesting and drying, the paddy is subjected to the primary milling operation which includes de-husking as well as the removal of bran layers (polishing) before it is consumed (Dhankhar, 2014). The purpose of a rice milling system is to remove the husk and the bran layers from paddy rice to produce whole white rice kernels that are sufficiently milled, free of impurities and contain a minimum number of broken kernels (International Rice Research Institute). A rice milling system can be a simple one or two step process, or a multistage process. In a one-step milling process, husk and bran removal are done in one pass and milled or white rice is produced directly out of paddy. In a two-step process, removing husk and removing bran are done separately, and brown rice is produced as an intermediate product.

The single pass rice mill is still popular in many of the poor rice-growing countries and is widely used for custom milling of household rice. This mill is a steel friction type mill and uses very high pressure to remove the hull and polish the grain. This results in many broken kernels, a low white rice recovery of 50-55% and head rice yields of less than 30% of the total milled rice (IRRI, 2014).

The steel husker is in fact more than a husker since it also does the polishing. Paddy rice is fed into the machine and passes between a revolving steel shaft and a cylindrical shaped mesh screen. It combines the dehusking and polishing process into one operation. Paddy is fed into the hopper and, because of the rotational direction of the flutes on the revolving cylinder, is forced to move around the cylinder and toward the outlet. Friction between the grains and the steel parts of the huller (particularly the perforated sheet) causes the husk and bran to be scraped off. In the process, the husk and bran are ground into small pieces and most are pushed through the perforated screen (Tangpinijkul, 2010).

7.5 Buhler Process and Technology

7.5.1 Processing of Rice



- *Paddy Reception*

The plant will be equipped with bulk and bagged paddy reception linked to chain, screw and belt conveyors to elevators suitable for a capacity range of up to 300 tones/hour. In all critical points, there heavy-duty stable off-track detector and speed monitor designed for hygienic operation, high product reliability with long service life.

- *Pre-cleaning*

This is an automated process whereby it separates coarse impurities such as pieces of straw, bag tapes, paper, pieces of wood and leaves, successfully protecting downstream processing and conveying systems from machine damage.

- *Paddy drying System*

In addition to removing excess moisture content from raw material, it also has a major influence on the process efficiency, yield and final product quality. One of the special feature is a drier that can shorten drying time through an optimized multiple stage process while serving power by using low heat impact on paddy and effectively reducing losses through product breakages as a result of stress cracking.

- *Paddy storage.*

Project will have 8 Storage silos equipped with automated cleaning systems; electronic scales which will transmit the readings directly to master process control systems, automated process store and retrieval material into and from bins and temperature monitoring system.

- *Hulling*

The TopHusk hulls paddy rice with highest care and efficiency. The huller adjusts its pressure appropriately to adapt to different types of paddy. The aspiration air blows around the rolls for intensive cooling.

- *Polishing*

The SuperPoly rice polisher is equipped with an extended polishing roll and a strong aspiration system. Rice is polished using gentle friction and uniform water injection. • Simple water flow measuring control unit • Multi-point water addition system

- *Grading*

The SuperSort bran sifter separates tips and bran with high efficiency, leading to higher recovery of fractions. The machine has a lower operational speed and higher sieving area which results in gentle sieving action without further damaging the fractions

- *Optical sorting*

Rice optical color sorter helps to separate grains concerning shape and color differences**.** High-resolution cameras help to remove stones, black rice, and half husked rice. The mechanical sorting process improves the quality of rice and helps to separate the impurities from grain particles.

Buhler Technology unique value propositions for rice milling:

- Processing Efficiency and productivity
  - Processing speed,
  - maximum yield (less food wastage • Less broken • Minimizing spoilage (molds, rodents, insects)–
  - fully automated process,
  - lower energy consumption,
  - Lower downtimes and increased up-time,
- Grading for different markets
- Consistency in quality of output
- Reduced energy consumption,
- Minimum maintenance
- Long life of machines
- Online support

7.6 Project Financial Model

7.6.1 Investment costs

Total project costs will be TZS 31,287,662,700.03 which will cover machineries, land and building, installation costs, supporting infrastructure and allocated amount for shared facilities. Amount required to completed the projected is TZS 16,228,323,798.00 which details have been presented in the cash flow and is part of the of the pooled facility of TZS 42,921,241,459.00 to be sourced from the financier.

7.6.2 Projected Income (2024 to 2034)

Projected Revenues/Sales are expected to be growing by 11% per year. Operating expenses is projected to increase in decreasing rate by 3% per year. Net profit after taxes are expected to increase by an average of 24% yearly basing on the projections presented below.

TZS	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Sales Revenue:	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'
White whole Kernel	19,440,000	28,641,600	31,461,696	34,383,139	37,408,855	40,541,847	42,812,191	46,149,595	47,578,744	49,046,599	50,554,137
Brown whole Kernel	5,248,800	7,733,232	8,494,658	9,283,448	10,100,391	10,946,299	11,559,291	12,460,391	12,846,261	13,242,582	13,649,617
Large broken kernel	1,166,400	1,718,496	1,887,702	2,062,988	2,244,531	2,432,511	2,568,731	2,768,976	2,854,725	2,942,796	3,033,248
Medium broken kernel	777,600	1,145,664	1,258,468	1,375,326	1,496,354	1,621,674	1,712,488	1,845,984	1,903,150	1,961,864	2,022,165
Small broken kernel	155,520	224,926	242,537	260,191	277,890	295,633	306,455	324,277	328,178	332,087	336,006
Husk	972,000	1,432,080	1,573,085	1,719,157	1,870,443	2,027,092	2,140,610	2,307,480	2,378,937	2,452,330	2,527,707
Total	**27,760,320**	**40,895,998**	**44,918,145**	**49,084,249**	**53,398,465**	**57,865,056**	**61,099,765**	**65,856,702**	**67,889,994**	**69,978,258**	**72,122,880**
Cost of Goods Sold	20,408,275	28,800,718	31,577,034	34,266,154	37,052,655	39,939,625	42,144,594	45,199,863	46,759,080	48,312,272	49,915,254
Gross Margin	7,352,045	12,095,280	13,341,111	14,818,096	16,345,809	17,925,430	18,955,171	20,656,839	21,130,914	21,665,986	22,207,626
Administration and Marketing Expenses	-	-	-	-	-	-	-	-	-	-	-
Marketing Expenses	1,696,042	1,848,686	1,941,120	2,038,176	2,140,085	2,247,089	2,359,444	2,477,416	2,601,287	2,731,351	2,867,919
Interest on Overdraft	822,790	752,203	687,672	628,677	574,743	525,436	480,359	439,150	401,475	367,033	335,545
Interest on Long Term Debt	1,640,361	1,650,574	1,495,922	1,326,418	1,123,985	2,720,810	779,230	591,296	383,683	154,331	1,773
Total Admin & Marketing Expenses	4,159,193	4,251,463	4,124,714	3,993,272	3,838,813	5,493,336	3,619,033	3,507,862	3,386,445	3,252,715	3,205,237
	-	-	-	-	-	-	-	-	-	-	-
Income Before Taxes	3,192,852	7,843,818	9,216,397	10,824,824	12,506,996	12,432,095	15,336,138	17,148,977	17,744,469	18,413,271	19,002,389
Income Taxes	957,855	2,353,145	2,764,919	3,247,447	3,752,099	3,729,628	4,600,841	5,144,693	5,323,341	5,523,981	5,700,717
Net Income (Loss)	2,234,996	5,490,672	6,451,478	7,577,377	8,754,897	8,702,466	10,735,297	12,004,284	2,421,128	12,889,290	13,301,672
Beginning Retained Earnings	-	2,234,996	7,725,668	14,177,146	21,754,523	30,509,420	39,211,887	49,947,183	61,951,467	74,372,596	87,261,886
Net Income (Loss)	2,234,996	5,490,672	6,451,478	7,577,377	8,754,897	8,702,466	10,735,297	12,004,284	12,421,128	12,889,290	13,301,672
End Retained Earnings	2,234,996	7,725,668	14,177,146	21,754,523	30,509,420	39,211,887	49,947,183	61,951,467	74,372,596	87,261,886	100,563,558
Movement	-	-	-	-	-	-	-	-	-	-	-
Revenue		47%	10%	9%	9%	8%	6%	8%	3%	3%	3%
Operating Expenses		2%	-3%	-3%	-4%	43%	-34%	-3%	-3%	-4%	-1%
pat		146%	17%	17%	16%	-1%	23%	12%	3%	4%	3%

7.6.3 Projected Financial Position (2024 to 2034)

Most of the balance sheet items will keep on increasing as the business continues to operate on its normal operating cycle; however, there is a plan of purchasing a warehouse within the coming two years. Currently the only non-current assets of the company are Buildings & Infrastructure and production Equipment. Depreciation rates will continue to be at 5% and 20% respectively annually. Net worth of the business will be growing with an average growth of 26%.

DESCRIPTION	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'
Assets											
Current Assets:											
Cash	7,111	252,943	759,157	208,660	656,299	1,144	3,497,301	937,389	2,944,887	492,489	3,471,258
Accounts Receivable	403,080	1,104,192	4,716,405	4,466,667	12,495,241	18,748,278	26,700,597	19,757,011	30,550,497	25,891,955	43,634,342
Total Inventories	7,295,419	9,046,179	9,143,626	9,958,717	10,802,576	11,676,063	12,317,768	13,248,129	13,665,671	14,095,338	14,537,485
Total Current Assets	7,705,609	10,403,314	14,619,188	14,634,044	23,954,115	30,425,485	42,515,667	33,942,528	47,161,056	40,479,782	61,643,085
Long-Term Assets:	-	-	-	-	-	-	-	-	-	-	-
Buildings, Machinery & Equipment	30,229,263	32,071,628	33,556,950	41,183,527	41,183,527	41,183,527	41,183,527	63,038,512	65,465,710	92,003,536	94,794,813
Accumulated C.C.A.	(2,885,896)	(5,891,473)	(8,800,340)	(12,704,274)	(17,249,417)	(20,999,435)	(24,107,657)	(27,243,407)	(32,695,530)	(42,190,237)	(53,046,403)
Land	1,058,400	1,579,724	1,579,724	1,579,724	1,579,724	1,579,724	1,579,724	1,579,724	1,579,724	1,579,724	1,579,724
Total Long-Term Assets	28,401,767	27,759,880	26,336,334	30,058,978	25,513,835	21,763,817	18,655,595	37,374,830	34,349,904	51,393,024	43,328,134
Total Assets	36,107,376	38,163,194	40,955,522	44,693,022	49,467,950	52,189,302	61,171,262	71,317,359	81,510,960	91,872,806	104,971,219
Liabilities	-	-	-	-	-	-	-	-	-	-	-
Current Liabilities:	-	-	-	-	-	-	-	-	-	-	-
Accounts Payable	1,018,684	1,231,647	1,341,325	1,409,023	1,494,357	1,718,910	1,760,323	1,884,820	1,847,589	1,739,795	1,749,261
Overdraft	4,571,053	4,178,905	3,820,399	3,492,649	3,193,017	1,718,910	1,760,323	1,884,820	1,847,589	1,739,795	1,749,261
Long-Term Liabilities	-	-	-	-	-	-	-	-	-	-	-
Long Term Debt	25,624,243	22,368,573	18,958,252	15,378,426	11,612,755	8,600,105	6,805,355	4,822,672	2,632,375	212,726	(0)
Total Liabilities	31,213,980	27,779,125	24,119,976	20,280,099	16,300,129	10,319,016	8,565,678	6,707,491	4,479,964	1,952,520	1,749,261
Owner Equity	-	-	-	-	-	-	-	-	-	-	-
Owner Equity	2,658,400	2,658,400	2,658,400	2,658,400	2,658,400	2,658,400	2,658,400	2,658,400	2,658,400	2,658,400	2,658,400
Retained Earnings	2,234,996	7,725,668	14,177,146	21,754,523	30,509,420	39,211,887	49,947,183	61,951,467	74,372,596	87,261,886	100,563,558
Total Owner Equity	4,893,396	10,384,068	16,835,546	24,412,923	33,167,820	41,870,287	52,605,583	64,609,867	77,030,996	89,920,286	103,221,958
Total Liabilities & Owner Equity	36,107,376	38,163,194	40,955,522	44,693,022	49,467,950	52,189,302	61,171,262	71,317,359	81,510,960	91,872,806	104,971,219

7.6.4 Liquidity

Projected liquidity position of the business is quite healthy such that it will be able to repay the bank facility being applied for, while at the same time meeting all its other financial obligations of operating the business [Annex: cash flow projections attached]. The requested financing will help complete the projects.

Assumptions:

Revenue

- It is assumed that the business turnover will increase by an average of 11% over the loan duration.
- Net profit will increase by 13% as a result of economies of scale due to bulk purchases in harvesting time and discounts from suppliers
- Legal and regulatory framework remain stable over the loan tenor
- Exchange rate will remain fairly stable at the current rate

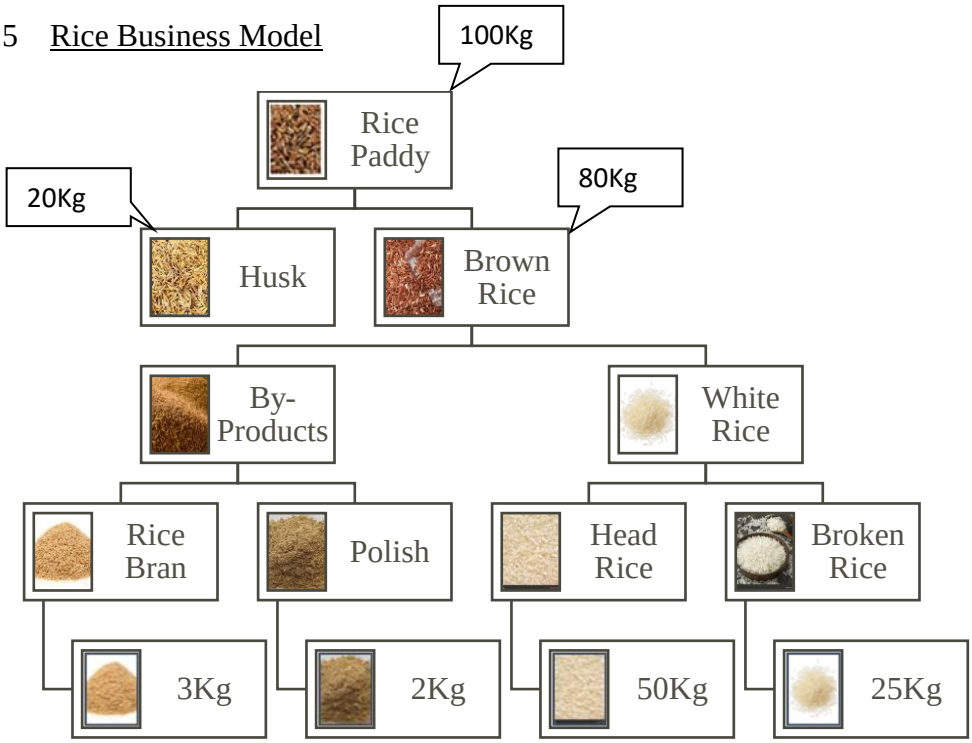
Finance cost

- Interest from this credit will be 4% per annum.
- Loan processing fee will remain at 1.5% once off charge.
- Insurance remains at 1.25% once off
- Other bank charges like ledger fees and withdrawal charges remain the same.

Operating expenses

- They will increase by 3% as a result of the growth of business volumes e.g. transport, communication, rent etc.

7.6.5 Rice Business Model



The company will purchase paddy during a low-price season and process it to make rice during high demand season where prices of rice are high and make reasonable profits. The company will sell different varieties of rice in terms of quality and size as per the breakdown below: - whole white kernel rice will be 50% at TZS 2,400/=, whole brown kernel rice 15% at TZS 2,000/=, Broken kernel rice (large size) 5% will be at TZS 1,600/=, broken kernel rice (medium size) 4% at TZS 1,000/=, broken kernel rice (small size) 1% at 800/= and husks 25% at 200/=.

During paddy low price season 1 kg is bought at TZS 800 (Worst case scenario). Henceforth, company will not sell paddy during high supply season rather it will process to make rice and resell at substantial profit margins. The relationship between 1 kg of paddy and rice is: -
One kg of paddy does produce 0.75 kg of rice after milling. For this matter 100 kg of paddy produces 75 kg of rice after processing (Milling process). The machine will be operating at 60% capacity in the first year and gradually grow to at least 80% in the third year

Assumptions

- 25,600,000 kg of paddy will produce 19,200,000 kg of rice.
- One kg of paddy is purchased at TZS 800 (worst case scenario).
- One kg of whole white kernel rice will be sold at TZS 2,400 (worst case scenario)
- One kg of whole brown kernel rice will be sold at TZS 2,000 (worst case scenario)
- One kg of broken kernel rice (large) will be sold at TZS 1,600 (worst case scenario)
- One kg of broken kernel rice (medium) will be sold at TZS 1,000 (worst case scenario)
- One kg of broken kernel rice (small) will be sold at TZS 800 (worst case scenario)
- One kg of rice husks will be sold at TZS 200
- Investment of TZS 1,200,000,000 will give 2,400,000 kg of paddy
- One kg of paddy gives 0.75 kg of rice.
- Production capacity per year will be 19,200,000 kg of rice.
- So, 25,600,000 kg of paddy will produce 19,200,000 kg of rice after milling.
- 19,200,000 kg of rice is equivalent to 192,000 bags of rice (100 kg).

7.7 Rice Project Investment analysis

The net present value of this project is positive which shows that, there will be positive cash inflows in the future. The internal rate of return will be 30%, which shows the project will generate profits. Future cash inflows have been discounted by 12%. The payback period of the loan facility is 4years and 8 months.

YEARS		**CASHFLOW (TSHS'000')**	**PRESENT VALUE (TSHS'000')**
2023	0	(31,057,980)	(31,057,980)
2024	1	5,120,892	4,572,225
2025	2	8,520,863	6,792,780
2026	3	9,633,178	6,856,706
2027	4	10,918,162	6,938,689
2028	5	12,262,722	6,958,198
2029	6	12,385,682	6,274,972
2030	7	14,602,673	6,605,508
2031	8	16,065,029	6,488,396
2032	9	16,684,911	6,016,746

2033	10	17,366,262	5,591,471
2034	11	18,002,493	5,175,286
DISCOUNT RATE	12 %		
NPV			37,212,997
IRR			30%
Discounted Payback Period (years)			4.85

7.8 Maize Project Breakeven Point

This project will break even in five years and three months' time after producing 5,990,678 units which will have a Break-Even value of TZS 8,147,322

Break Even Point (Unit)				
	Total Fixed Cost TSHS'000'	**Weighted Average Contribution Margin/Unit**	**Break Even Point (Unit)**	**Break Even Value TSHS'000'**
	2,950,893	7.4	173,303	3,269,908

8.0 ANIMAL FEEDS PROJECT

Fish feed pellets

Goat feed pellets

Cattle feed pellets

Alfalfa pellets

Pigeon feed pellets

Rabbit feed pellets

8.1 Introduction

Tanzania has the third largest livestock population on the African continent comprising of 25 million cattle 98% of which are indigenous breeds, complemented by 16.7 million goats, 8 million sheep, 2.4 million pigs and 72 million indigenous and commercial poultry. Commercial poultry mainly chicken and fish keeping are among the economic activities expanding fast in the country. Poultry holds high potential for rapid modernization with growing demand in urban and peri-urban and rural areas. There is also opportunity to upscale small scale farmers' production from the 96% of livestock farmers who keep indigenous chickens, usually in small flocks of up to 20 animals.

Large portion of the livestock farming in the underdeveloped countries is done at a small scale mostly by women and children, consequently most women's productive time is spent in livestock management activities largely sourcing feed and/or feeding them. In pastoral systems, young men spend considerable amounts of time grazing cattle, while women often graze small ruminants and collect forages and feeds for monogastric animals. In India for example, women spend up to an average of 5.3 hours in livestock production, most of which is on collecting feed; in some parts of Tanzania where land is scarce e.g. Kilimanjaro women and children spent between 1 and 4 hours daily to fetch forage for the livestock.

Given the number of livestock population and segment of population involved, poultry represent one of the most promising pathways for poverty alleviation – particularly for women's empowerment and employment – and makes a critical contribution to improved nutrition and food security. Modernization of the poultry industry, particularly among smallholders, is important to dispel the notion of poultry primarily as a subsistence activity.

8.2 Project Description

Animal Feed is at the very interface of the positive and negative effects of livestock. Lack of affordable, adequate feed (quantity and quality) represents a major constraint to smallholder competitiveness and the overall profitability of livestock farming because of its direct impact on animal productivity. Choice of feeds and feeding strategies also has major implications for natural resource usage, greenhouse gas emissions and carbon sequestration

Animal feed processing plant will produce assorted animal feed for feeding domestic animals like cattle, pig, fish, poultry and dogs. The feed will be prepared by modern industrial production method and the main ingredients will be maize, rice bran, cotton and sunflower oil seed cakes, wheat, barley, mash, molasses, other vegetable oil lees, crushed bones, oil and fat, and some other additives. The envisaged objectives include alleviation of supply constraints of critical feed ingredients; improvement and expansion of the utilization of agri-processing by-products for use as a high-quality livestock feeds and creation of efficient system to produce and distribute animal feeds at affordable price and convenient place.

The company wishes to spearhead efforts to develop a robust, vibrant, inclusive, and sustainable livestock value chains in the country to significantly contribute to prosperity and well-being of the society by supplying affordable and quality animal feeds

8.3 Production Situational Analysis

8.3.1 Production in Tanzania

Tanzania is one of the African countries known for livestock resources. It ranks third in Africa after Sudan and Ethiopia in livestock population .Livestock is a key agricultural sub-sector in Tanzania. About 36% of farm households are engaged in livestock-keeping. The sub-sector contributes 7% of the country's Gross Domestic Product. In recent time the people of Tanzania have become more aware in feed practices especially for commercial poultry. The country has seen the establishment of ranches and increase in poultry and aquaculture farms to meet the rising demand for meat products in the country, the region and other markets. There are currently 105 feed mills in Tanzania with installed capacity of about 2.0 million MT per annum (MLF, 2020) although the exact number keeps fluctuating.

Production of poultry feeds for both layers and broilers for 2016 was estimated to be 195,000 MT and 455,000 MT respectively totaling 650,000 Metric Tons. In 2017, layer feed was 150,000 MT and 380,000 MT for broilers totaling 630,000 MT per year. This production rate has remained more or less the same because in 2019 the production of poultry feed was estimated to be 2,046.8 per day (about 614,040 MT per year of 300 working days). This production is only 40% of projected annual demand of about 1.5 million MT (PAT, 2020). If national demand for poultry will increase as projected suggesting that the demand for feed will continue to grow.

6.10.2 Feeds Production in EAC countries

In 2014, Kenya, Tanzania, and Uganda, the countries with the largest livestock industry in the region had a demand for animal feeds amounting to 6 million MT against production at only 1.7 million. This demand is expected to increase by 60% in 2020. As at 2014, the biggest demand for animal feeds was in Kenya the country with the largest and most dynamic animal feeds industry. However, future demand will be informed by Tanzania which will take up around 70% of the total projected demand.

6.10.3 Feeds Demand in EAC countries

Collective deficit in animal feeds in Kenya, Tanzania and Uganda stood at 8 million MT and 5.3 million MT in 2013 and 2014 respectively against a backdrop of increasing demand during the same period. Ironically however, according to formal statistics in 2013, the three countries produced 1.36 million MT of cereal bran against a utilization capacity of 1.1 million MT while there was a surplus of 209,000MT of oil seed cakes.

Increasing demand for animal feeds is driven by a need to produce more livestock products whose demand in the region has been following a similar trend. Specifically, demand for poultry feeds is on an upward trend following increasing demand for poultry products at an average of 11% annually. As at 2014, poultry feeds constituted 64%, 96% and 60% of all animal feeds demanded in Kenya, Tanzania and Uganda respectively

Envisaged project target to produce feds for cattle fattening; pig; poultry (mainly chicken layers and broilers); home dogs and fish feeds to tape on the growing demand.

Cattle fattening

Fattening cattle are usually fed from 2.2 to 3.0 percent of their live weight per day, depending on the amount of concentrates in the ration and the rate at which they are being fattened. Such cattle gain from 2.2 to 3.0 pounds (1.0 to 1.4 kilograms) per day and require from 1.3 to 3.0 pounds (0.6 to 1.4 kilograms) of crude protein, according to their weight and stage of fattening. The economics of modern cattle finishing encourages the use of all-concentrate rations or a minimum of roughage, or roughage substitutes including oyster shells, sand, and rough plastic pellets. Corn (maize) silage produces heavy yields per acre at a low cost and makes excellent roughage for beef-cattle finishing.

Pigs Feeds

Good pig feed contains sufficient energy, protein, minerals and vitamins. Rice bran, broken rice, maize, soya-beans, cassava, vegetables and distillers' residues are often used in pig feed. Distillery waste is much appreciated in traditional pig husbandry, especially for pigs. Broken rice contains about 8% protein (Repoa, 2020)

Fish Feeds

Due to a strong growth in population, urbanization, increased wealth and changing eating patterns, demand for protein-rich, safe and sustainable food increases. Fish is a very efficient form of animal protein in terms of feed, water usage and emission. Sustainable production of fish could therefore be an interesting solution for the East African market, creating opportunities for both local and foreign investors. According to Fisheries Statistics from the department of Fisheries Development of the Tanzanian government, Tanzanian farmers produced around 3,240 tons of fish in 2014, growing from 1,522 tons in 2007, representing a small but growing sector

Tanzania has an attractive potential for aquaculture; its climate is ideal for farming indigenous fish species including tilapia and African catfish. These are the favored species of Tanzania's lower- and middle-income classes. According to the study, market demand for fish is growing rapidly due to factors including population growth and rising incomes. However, supply from wild catch is dwindling as natural water bodies are overfished and in general unregulated. The Ministry of Livestock and Fisheries in Tanzania estimates that this results in an estimated fish demand deficit of a staggering 480,000 tons per annum, which offers an attractive opportunity for those looking to establish local fish farming for the local market. The Tanzanian government actively supports sector growth by implementing a dedicated aquaculture development policy focused on commercial fish farming for both export and the domestic market.

The above opens opportunities to invest in the feeds to catch p with the envisaged growth in commercialized aquaculture farming in Tanzania and EAC markets.

Poultry Feeds

The major cost component in raising chickens is feed. The demand for commercial feed is expected to grow from the current 1,500,000 tons to 18,114,754 tons in 2050. Most of the feed is produced locally by 105 feed mills, which are mainly concentrated in Dar es Salaam and Pwani Regions. Feed mills (and some poultry farmers) depend on imported premixes and concentrates. The major component of poultry feed is maize

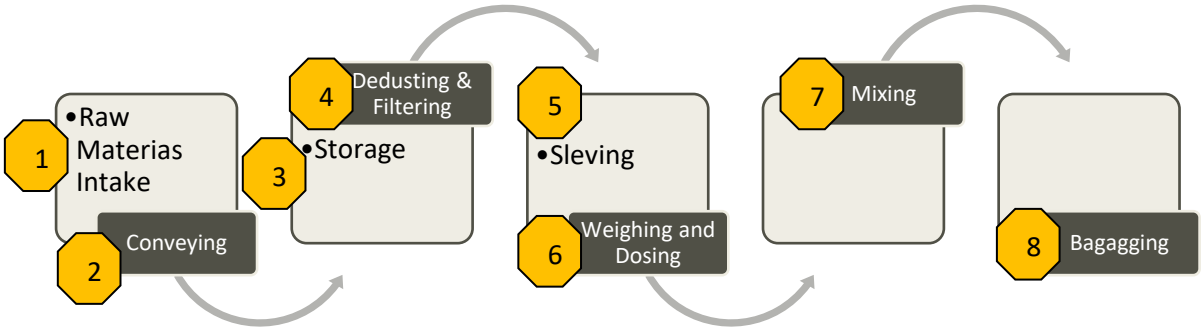
With carbohydrates contributing to over 70% of the required raw materials for feed mills, it offers a unique opportunity to the company to utilize by products from maize, rice and edible oil mills to produce feeds mills for poultry. Other requirements like kipper fish dust can easily be sourced from lake Victoria and Tanganyika.

7.5 Process and Technology

7.5.1 Processing of Animal Feeds

Feed milling process is usually divided into receiving and cleaning of raw materials; crushing of raw materials; batching; mixing; palleting; and packaging. The diameter of the final feed pellets can be 2 to 8 mm. The process flow starts by removing impurities such as iron chips and stones from raw materials. Then suck cornmeal and soybean meal into the feed hammer mill and crush it into fine powder. Other powdered/soft materials that do not need to be crushed, such as wheat bran, bone powder, microelement, vitamins, etc., can be fed directly from the feed to the mixing machine. Mix all materials evenly into the hopper of the spiral conveyor and feed it into the temporary storage compartment via the spiral conveyor.

Through the spiral feeder, the mixed material is fed evenly and continuously into the feed pellet machine, which is then made into feed pellets. The pellets are discharged into the hopper of the belt conveyor and then fed into the pellet cooling machine through the airlock. During the cooling process, fresh hot pellets are cooled at temperatures not exceeding 5 ℃ at room temperature. The cooled poultry feed pellets are screened through a vibration screen and then packaged.



7.6 Project Financial Model

7.6.1 Investment costs

Total project costs will be TZS 14,840,586,317.31 which will cover machineries, land and building, installation costs, supporting infrastructure and allocated amount for shared facilities. Amount required to complete the projected is TZS 8,089,195,247.00 which details have been presented in the cash flow and is part of the pooled facility of TZS 42,921,241,459.00 to be sourced from the financier.

7.6.2 Projected Income (2024 to 2034)

Project Revenues/Sales are expected to be growing by 7% per year. Operating expenses are projected to decrease by an average of 5% every year. Net profit after tax is expected to increase by an average of 15% yearly basing on the projections presented below:

DESCRIPTION	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Sales Revenue:											
Starter	25,038,720	31,298,400	34,428,240	39,435,984	42,722,316	43,576,762	44,448,298	45,337,264	46,244,009	47,168,889	48,112,267
Finisher	7,983,360	9,979,200	10,977,120	12,573,792	13,621,608	13,894,040	14,171,921	14,455,359	14,744,467	15,039,356	15,340,143
Starter	628,992	786,240	864,864	990,662	1,073,218	1,094,682	1,116,576	1,138,907	1,161,685	1,184,919	1,208,617
Grower	362,880	453,600	498,960	571,536	619,164	631,547	644,178	657,062	670,203	683,607	697,279
Finisher	4,478,976	5,598,720	6,158,592	7,054,387	7,642,253	7,795,098	7,951,000	8,110,020	8,272,220	8,437,665	8,606,418
Total	**38,492,928**	**48,116,160**	**52,927,776**	**60,626,362**	**65,678,558**	**66,992,130**	**68,331,972**	**69,698,612**	**71,092,584**	**72,514,436**	**73,964,724**
Cost of Goods Sold	32,731,672	41,175,291	42,973,982	48,697,219	52,065,824	53,891,698	54,231,011	55,315,627	56,421,935	57,550,369	58,701,493
Gross Margin	5,761,256	6,940,869	9,953,794	11,929,142	13,612,734	13,100,432	14,100,961	14,382,985	14,670,649	14,964,066	15,263,231
Administration and Marketing Expenses	-	-	-	-	-	-	-	-	-	-	-
Marketing Expenses	1,202,859	1,563,717	1,594,991	1,626,891	1,659,429	1,692,617	1,726,470	1,760,999	1,796,219	1,832,144	1,868,786
Interest on Short Term Debt	157,080	56,549	47,558	95,726	85,196	75,825	67,484	60,061	53,454	47,574	42,341
Interest on Long Term Debt	676,544	644,327	613,645	584,424	556,594	530,090	504,847	383,089	248,581	99,988	1,149
Total Admin & Marketing Expenses	2,036,483	2,264,593	2,256,194	2,307,041	2,301,219	2,298,532	2,298,801	2,204,149	2,098,254	1,979,705	1,912,276
Income Before Taxes	3,724,773	4,676,276	7,697,601	9,622,101	11,311,515	10,801,900	11,802,160	12,178,836	12,572,395	12,984,361	13,350,955
Income Taxes	1,117,432	1,402,883	2,309,280	2,886,630	3,393,454	3,240,570	3,540,648	3,653,651	3,771,718	3,895,308	4,005,286
Net Income (Loss)	2,607,341	3,273,393	5,388,320	6,735,471	7,918,060	7,561,330	8,261,512	8,525,185	8,800,676	9,089,053	9,345,668
Beginning Retained Earnings	-	2,607,341	5,880,734	11,269,055	18,004,526	25,922,586	33,483,916	41,745,428	50,270,613	59,071,290	68,160,342
Net Income (Loss)	2,607,341	3,273,393	5,388,320	6,735,471	7,918,060	7,561,330	8,261,512	8,525,185	8,800,676	9,089,053	9,345,668
End Retained Earnings	2,607,341	5,880,734	11,269,055	18,004,526	25,922,586	33,483,916	41,745,428	50,270,613	59,071,290	68,160,342	77,506,011
Movement											
Revenue	25%	10%	15%	8%	2%	2%	2%	2%	2%	2%	
Operating Expense	11%	0%	2%	0%	0%	0%	-4%	-5%	-6%	-3%	
Pat	26%	65%	25%	18%	-5%	9%	3%	3%	3%	3%	

7.6.3 Projected Financial Position (2024 to 2034)

Most of the balance sheet items will keep on increasing as the business continues to operate on its normal operating cycle; however, there is a plan of purchasing a warehouse within the coming two years. Currently the only non-current assets of the company are Buildings & Infrastructure and Production Equipment. Depreciation rates will continue to be at 20% and 20% respectively annually.

Net worth of the business will be growing with an average growth of 28% per annum as shown in the projected Statement of financial position 2024 - 2034:

DESCRIPTION	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'
Assets	TSHS'000'	TSHS'000'	TSHS'000'	**DESCRIPTION**	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'	TSHS'000'
Current Assets:											
Cash	313,999	911,093	401,359	1,338,735	3,028,381	393,285	2,233,396	444,016	397,547	251,755	348,996
Accounts Receivable	10,470,076	13,111,654	18,786,927	22,950,545	19,703,568	25,457,009	31,569,371	24,223,834	25,238,610	37,257,231	42,774,271
Total Inventories	2,463,267	2,489,962	4,054,702	6,977,073	16,481,858	16,072,980	16,394,440	16,722,329	17,056,775	17,397,911	17,745,869
Total Current Assets	13,247,342	16,512,709	23,242,988	31,266,352	39,213,807	41,923,275	50,197,207	41,390,179	42,692,933	54,906,897	60,869,137
Long-Term Assets:											
Buildings, Machinery & Equipment	14,640,586	14,640,586	14,640,586	14,640,586	14,640,586	14,640,586	14,640,586	38,884,002	52,926,861	57,513,453	70,864,402
Accumulated C.C.A.	(3,737,037)	(7,535,586)	(10,574,425)	(13,005,496)	(14,950,353)	(16,506,239)	(17,750,947)	(22,081,090)	(30,283,867)	(39,568,510)	(49,649,455)
Land	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000	200,000
Total Long-Term Assets	11,103,550	7,305,001	4,266,161	1,835,090	(109,767)	(1,665,653)	(2,910,361)	17,002,912	22,842,994	18,144,943	21,414,947
Total Assets	24,350,891	23,817,709	27,509,150	33,101,442	39,104,040	40,257,622	47,286,846	58,393,090	65,535,927	73,051,840	82,284,084
Liabilities								-			
Current Liabilities:											
Accounts Payable	4,407,518	3,263,510	3,563,755	4,048,220	4,366,815	631,873	562,367	4,427,967	4,189,175	4,183,677	,208,073
Overdraft	1,309,000	471,240	396,313	797,718	709,969	631,873	562,367	4,427,967	4,189,175	4,183,677	4,208,073
Long-Term Liabilities					-						
Long Term Debt	15,457,032	13,632,225	11,710,027	9,680,979	7,534,669	5,571,833	4,409,051	3,124,511	1,705,462	137,821	0
Total Liabilities	21,173,550	17,366,975	15,670,095	14,526,917	12,611,454	6,203,706	4,971,418	7,552,477	5,894,638	4,321,498	4,208,073
Owner Equity											
Owner Equity	570,000	570,000	570,000	570,000	570,000	570,000	570,000	570,000	570,000	570,000	570,000
Retained Earnings	2,607,341	5,880,734	11,269,055	18,004,526	25,922,586	33,483,916	41,745,428	50,270,613	59,071,290	68,160,342	77,506,011
Total Owner Equity	3,177,341	6,450,734	11,839,055	18,574,526	26,492,586	34,053,916	42,315,428	50,840,613	59,641,290	68,730,342	78,076,011
Total Liabilities & Owner Equity	24,350,891	23,817,709	27,509,150	33,101,442	39,104,040	40,257,622	47,286,846	58,393,090	65,535,927	73,051,840	82,284,084

7.6.4 Liquidity

Projected liquidity position of the business is quite healthy such that it will be able to repay the bank facility being applied for, while at the same time meeting all its other financial obligations of operating the business [Annex: cash flow projections attached]. The requested financing will help to boost business working capital and meet customers' expectations.

Assumptions:

Revenue

- It is assumed that the business turnover will increase by an average of 7% over the loan duration.
- Net profit will increase by 15% as a result of economies of scale due to bulk purchases in harvesting time and discounts from suppliers
- Legal and regulatory framework remain stable over the loan tenor
- Exchange rate will remain fairly stable at the current rates

Finance cost

- Interest from this term loan will be 10% per annum.
- Loan processing fee will remain at 1.5% once off charge.
- Insurance remains at 1.25% once off
- Other bank charges like ledger fees and withdrawal charges remains the same.

Operating expenses

- They will increase by 2% as a result of the growth of business volumes e.g. transport, communication, rent etc.

7.6.5 Animal feed Business Model

Assumptions

- The purchase amount of raw materials per year 13,050,065 Kg (2024)
- For broilers:
  - One kg of starter will be sold at TZS 1,380
  - One kg of starter will be sold at TZS 1,320
- For Layers:
  - One kg of starter will be sold at TZS 1,040
  - One kg of grower will be sold at TZS 1,040
  - One kg of finisher will be sold at TZS 960
- Production capacity will be 10 tons per hour
- Working hours will be 16 hours per day
- Working days per year will be 360 days
  Exchange rate is expected to be TZS 2,800 is equivalent to 1€

Price (market value) per unit selling

Unit of Selling	Percent of units	Number of Units	Price per unit TZS	Cost per each Unit TZS
Broiler: Starter	47%	2,250,000	1,380	406.74
Finisher	16%	750,000	1,320	813.5
Layers: Starter	13%	630,000	1,040	54.94
Grower	8%	360,600	1,040	15.09
Finisher	17%	810,000	960	256.12

Assumptions

- The purchase amount per year will be 24,336,600 kg of maize
- One kg of maize will be purchased at TZS 400
- One kg of flour will be sold at TZS 800 (worst case scenario).
- One kg of husks will be sold at TZS 190/= (worst case scenario).
- Its by-products Maize Bran and Gem meal will be transferred to animal feed mills at a market price.

7.7 Maize Project Investment analysis

The net present value of this project is positive which shows that, there will be positive cash inflows in the future. The internal rate of return will be 32%, which shows the project will generate profits. Future cash inflows have been discounted by 12%. The payback period of the loan facility is 5 years and 3 months.

YEARS		**CASHFLOW (TSHS)**	**PRESENT VALUE (TSHS)**
2023	0	(34,064,792)	(34,064,792)
2024	1	4,346,589	3,880,883
2025	2	6,186,465	4,931,812
2026	3	9,111,933	6,485,694
2027	4	11,656,492	7,407,911
2028	5	14,732,082	8,359,379
2029	6	17,269,134	8,749,081
2030	7	19,676,569	8,900,681
2031	8	22,942,497	9,266,090
2032	9	25,595,346	9,229,939
2033	10	28,822,325	9,280,017
2034	11	32,502,068	9,343,568
2035	12	36,694,557	9,418,579
DISCOUNT RATE	12%		
NPV			61,188,841
IRR			32%
Discounted Payback Period (years)			5.34

7.8 Maize Project Breakeven Point

This project will break even in five years and three months' time after producing 173,303 units which will have a Break-Even value of 3,269,908 /=

Break Even Point (Unit)				
	Total Fixed Cost TSHS'000'	**Weighted Average Contribution Margin/Unit**	**Break Even Point (Unit)**	**Break Even Value TSHS'000'**
	2,950,893	7.4	173,303	3,269,908