BUSINESS PLAN

RICE MILL

TABLE OF CONTENTS

PROJECT AT A GLANCE

Name of Unit	ASHIAN EXIM LIMITED
Place of Unit	Shinyanga
Province	Shinyanga Region, Tanzania
Registration No	
Bank Account No.	
Activity	Process Raw Paddy into polished, edible rice by removing the husk, bran layers, and impurities. Exporting of legumes and peas & importing Agro products and animal feeds, Processing Of Edible oil etc.
Sector Classification	Micro
Project Cost & Investment	919400000 TZS
Employment (Permanent & Temporary)	More than 35 individuals
Production Capacity	6000 MT. Paddy Per Year

INTRODUCTION

Our project focuses on processing raw Paddy into polished, edible rice, catering to the rising demand for high-quality rice in local and regional markets. This initiative is integral to enhancing the agricultural value chain by ensuring efficient post-harvest handling and reducing losses. The project typically involves modern milling technologies to perform operations like dehusking, polishing, grading, and packaging, ensuring the production of rice that meets consumer preferences and market standards. Beyond rice production, the project often incorporates systems to utilize byproducts such as rice husks, bran, and broken rice, creating additional revenue streams and reducing waste.

The establishment of a rice mill contributes significantly to the socio-economic development of the region by supporting local farmers through stable market access for their paddy and creating employment opportunities in milling operations, logistics, and allied industries. It also enhances food security by increasing the availability of quality rice for consumers. By adopting sustainable practices, including waste management and compliance with environmental regulations, the project can achieve long-term operational efficiency while minimizing its ecological footprint, making it a valuable investment in both economic growth and sustainability. It will affect impact on saving import and give self-sufficient to the country local consumption.

BACKGROUND OF PROMOTER DIRECTORS

The Promoter Director of this rice mill project, brings over 20 years of extensive experience in the agricultural products industry. His deep understanding of agricultural value chains, coupled with his expertise in sourcing, processing, and marketing, has been instrumental in driving successful ventures in the sector. Promotor has a proven record of accomplishment of managing large-scale operations, fostering strong relationships with farmers, and ensuring the delivery of high-quality agricultural products to local and international markets.

Throughout his career, Promotor has demonstrated a commitment to innovation and sustainability by implementing modern technologies and environmentally friendly practices in agricultural processing. His leadership has not only enhanced operational efficiencies but also contributed to rural development by empowering farmers and creating job opportunities. With his wealth of knowledge and a vision to strengthen the agricultural supply chain, Promotors is poised to lead the rice mill project toward achieving excellence in production, sustainability, and market competitiveness.

SOURCING

The primary raw material for the rice mill, Raw Paddy, will be sourced directly from local farmers in the Shinyanga Region, which is known for its robust rice cultivation. Partnerships will be established with local rice growers and farmer groups to ensure a steady and reliable supply of high-quality paddy. Additionally, the mill may establish contracts with regional agricultural associations to secure long-term sourcing agreements, offering farmers consistent pricing and market access. To maintain quality standards, paddy will be procured based on specified moisture levels, grain varieties, and cleanliness, ensuring the efficiency of the milling process and the production of premium rice products. This localized sourcing strategy minimizes transportation costs and supports the agricultural community, fostering a sustainable supply chain while meeting market demands for rice.

MARKET ANALYSIS

- ### Demand and supply analysis for rice and by-products

  In Tanzania, the demand for rice has steadily increased due to population growth, urbanization, and changing dietary preferences, making it a key staple food alongside maize. Domestic rice production, primarily from regions like Mbeya, Morogoro, and Shinyanga, often struggles to meet the growing demand, leading to periodic imports to fill the gap. The supply chain faces challenges such as limited access to modern farming techniques, inefficient milling processes, and post-harvest losses. Meanwhile, byproducts like rice bran and husks are gaining demand for animal feed, bioenergy, and industrial uses, but their utilization remains underdeveloped due to a lack of processing infrastructure. With targeted investments in modern milling technologies and byproduct management, the rice sector in Tanzania has significant potential to enhance supply, reduce reliance on imports, and tap into emerging markets for byproducts.

- ### Target market and customer segmentation

  The target market for the rice milling industry in Tanzania includes local households, food businesses, institutions, export markets, and industrial buyers of byproducts. Households, both urban and rural, form the largest segment, with urban consumers preferring polished and well-packaged rice, while rural consumers prioritize affordability. Food businesses like restaurants, hotels, schools, and hospitals demand consistent quality and bulk supplies. Export markets focus on specialty rice varieties and require adherence to international standards. Additionally, industrial buyers seek byproducts such as rice bran and husks for animal feed, bioenergy, and manufacturing. By catering to these diverse segments, the industry can enhance its market reach and profitability.

LOCATION & ADVANTAGES

The rice mill will be strategically located in Shinyanga Region, a prominent Paddy rice-producing area in Tanzania. Known for its fertile soils and favorable climate for rice cultivation, Shinyanga is a hub for agricultural activities, particularly paddy farming. The region's proximity to major rice-growing districts and strong transport connections to urban markets make it an ideal location for establishing a rice milling facility.

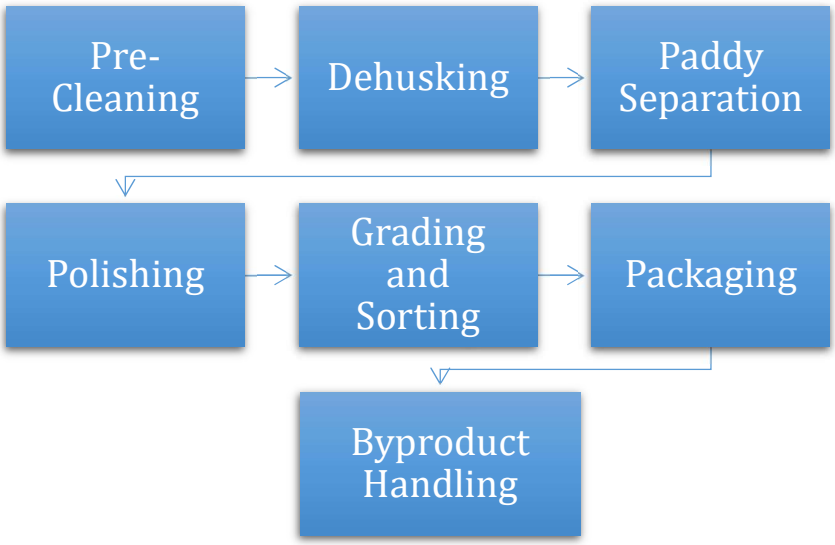
Advantages:

The Shinyanga Region offers significant advantages for establishing a rice mill, including an abundant and consistent supply of raw paddy due to its thriving rice cultivation. Its proximity to farmers enables cost-effective sourcing and fosters strong supplier relationships, while its strategic location and well-developed road networks ensure easy access to major markets like Mwanza and Dodoma. Additionally, reduced transportation costs for raw materials lower operational expenses, and the local availability of labor supports employment generation, boosting the regional economy. Government incentives for agricultural processing further enhance the financial viability of the mill, and the region’s connectivity facilitates potential export opportunities to neighboring countries with high demand for Tanzanian rice.

PLANT CAPACITY

The rice mill is designed to process **50 tons of raw paddy per day**, with a total of **120 to 140 working days** per year. This capacity allows the mill to produce high-quality polished rice, broken rice, and byproducts like rice bran and husk, meeting both local and regional market demand. The mill's daily output will be efficiently managed across various stages of the milling process, including dehusking, polishing, grading, and packaging, ensuring a steady flow of finished products. With this capacity, the mill can achieve an annual production of approximately **6000 tons** of processed Paddy Processing, depending on the exact number of working days. This scale of operation is well-suited to meet the growing demand for rice in Tanzania and neighboring regions, while also offering opportunities for export.

PROCESS OF THE RICE MILLING



- **Pre-Cleaning:** Paddy is first cleaned to remove impurities such as stones, dirt, and other foreign materials. This step ensures that the milling equipment operates efficiently and produces high-quality rice.

- **Dehusking (Husking):** The cleaned paddy is then processed to remove the outer husk, producing brown rice. This is typically done using rubber rollers or other dehusking machines.

- **Paddy Separation:** During dehusking, some grains remain unhulled. Paddy separators are used to separate the unhulled grains from brown rice, allowing them to be reprocessed.

- **Polishing/Whitening**: The bran layer of the brown rice is removed in the polishing or whitening stage to produce white rice. This step also enhances the rice's appearance and shelf life.

- **Grading and Sorting**: The milled rice is graded based on size and quality. Broken grains are separated from whole grains, and advanced sorting technologies may be used to remove defective grains.

- **Packaging**: The final product is weighed, packed, and prepared for storage and distribution.

- **Byproduct Handling**: Byproducts like rice husks, bran, and broken rice are collected and utilized for purposes such as animal feed, oil extraction, or bioenergy production.

MATERIALS & INPUTS

Raw Material

The primary raw material required for rice milling is raw paddy, which is harvested from rice fields. To ensure efficient operations and high-quality output, the following raw materials and additional inputs are essential:

- **Raw Paddy**: Different varieties of rice, such as long-grain, medium-grain, or aromatic rice, depending on market demand. Paddy should have optimal moisture content (typically 14%) for efficient milling and reduced breakage.

- **Packaging Materials**: Bags or sacks for packing finished rice (e.g., jute, polypropylene) and Labels or branding for consumer and wholesale packaging.

- **Polishing Agents**: In some cases, agents like talc or glucose may be used to enhance rice polish and sheen.

- **Fumigants**: To protect raw paddy and finished rice from pests during storage.

UTILITIES

Electricity: A primary utility for powering the milling equipment such as dehuskers, polishers, graders, conveyors, and packaging machines. The mill will require a reliable electricity supply, potentially supplemented by backup generators to avoid production downtime during power outages.

Water: Water is needed for cleaning raw paddy, parboiling (if applicable), and maintaining hygiene in the mill. It will also be used for cooling machinery and processing byproducts.

Fuel: Diesel or gas will be required for backup generators and other machinery that may not be directly connected to the main power grid, ensuring continuous operation during power interruptions.

TECHNOLOGY & ENGINEERING:

Technology

The rice mill will incorporate state-of-the-art milling technology to ensure high efficiency, minimal waste, and superior product quality. Modern equipment such as **multi-pass rice mills**, **dehuskers**, **polishers**, **paddy separators**, and **color sorters** will be utilized to process raw paddy into polished rice with minimal broken grains. Automation systems will be employed to monitor and control various stages of the milling process, ensuring consistent quality and optimizing energy use. Additionally, **laser sorting** and **high-tech grading machines** will be used for accurate classification, improving the overall rice yield and meeting market specifications. Waste byproducts like rice husks and bran will also be processed with **biomass energy systems**, utilizing environmentally friendly technology to generate steam or electricity, thereby reducing operational costs and promoting sustainability.

ENGINEERING

The rice mill's engineering design will focus on maximizing operational efficiency and ensuring smooth integration of all machinery. The layout of the facility will be optimized to streamline the flow of raw materials, reduce bottlenecks, and enhance production capacity. Engineers will ensure that all equipment is properly installed and calibrated, with a focus on energy efficiency, safety, and maintenance ease. The mill will feature a **customized conveyor system**, **vibration systems** for efficient cleaning, and **mechanical or pneumatic conveying equipment** for transporting paddy and finished rice. Additionally, a robust **waste management system** will be implemented to handle rice husks and other byproducts, and the building will be designed to accommodate essential utilities like electricity, water, and steam. Regular engineering assessments will ensure that the mill maintains its peak performance and complies with health, safety, and environmental standards.

LIST OF MATERIALS AND EQUIPMENT TO BE IMPORTED BY THE COMPANY

Sr. No.	Particulars	Price Total TZS
1	Paddy Cleaner /Grader	**869400000**
2	De-stoner	
3	De-husking Machines	
4	Paddy Separators	
5	Rice Grader	
6	Polishing Machines	
7	Conveyors and Elevators	
8	Bag filling Machine & Sewing Machine	
9	Structure & Installation Charges & Transportation, etc.	
10	Weighing Scale for Truck 60 ton capacity	
	TOTAL TZS	**869400000**

LAND, BUILDING & CIVIL WORKS

The rice mill will be built on a 2000 m^2 plot of land, providing ample space to accommodate the various operations and infrastructure needed for efficient production. Initially, planned to hire the premises or warehouse on rent. After two years, there is plan to build a owned warehouse and facilities. This size allows for a well-organized layout, which will include designated areas for raw material intake, milling equipment, finished product storage, packaging, and waste management. The land should be level, with sufficient space for expansion and the installation of essential infrastructure like water tanks, waste management systems, and energy supply units. The site should also have easy access to major roads to facilitate the transportation of raw paddy and finished rice to markets.

For the future plan building structure will be designed to house all the necessary equipment and operations while maintaining efficient workflow. The facility will include separate sections for raw material intake, milling operations, product packaging, storage, and waste management. Civil works will involve the construction of durable, fire-resistant buildings and foundations capable of supporting heavy machinery. The design will also incorporate safety features, such as proper ventilation, fire exits, and anti-slip flooring. Additionally, provisions for utilities like water supply, electricity, and steam generation will be integrated into the building layout. Proper drainage systems will be installed to manage wastewater and rainwater, ensuring minimal environmental impact. The facility will be constructed using locally available materials to reduce costs and support the local economy.

MANPOWER & TRAINING REQUIREMENT

MANPOWER REQUIREMENT : The envisaged project requires 35 work force. The list of manpower for the envisaged project is indicated in Table. The annual cost of labor including fringe benefits is estimated at **230.364** million TZS

TRAINING REQUIREMENT : To maintain high operational standards, staff will receive regular training in machinery operation, safety protocols, quality control, and maintenance. Training will be provided by industry experts and cover both theoretical and practical skills. Additionally, staff will be trained in basic agricultural knowledge and rice milling processes to ensure efficiency and product quality.

MANPOWER REQUIREMENT & ANNUAL LABOUR COST

Sr. No.	Description	No. OF JOB	Expat/ Local	Job Description
1	General Manager	1	Expat	The General Manager oversees operations, ensuring efficient production, profitability, HSE compliance, and continuous improvement.
2	Assistant Manager	1	Local	A Secretary manages schedules, correspondence, and records, ensuring smooth office operations and effective coordination.
3	Purchase Manager	1	Local	The Purchase Manager handles procurement, vendor relations, and contract negotiations, ensuring timely, cost-effective, and quality-compliant supplies.
4	Mill Operators	1	Expat	Mill Operators manage and monitor milling equipment to ensure efficient production and consistent product quality.
5	Production and technical Manager	2	Local	The Production and Technical Manager ensures efficient, high-quality production, manages technical operations, and drives continuous improvement to meet targets and safety standards.
6	Sales Manager	1	Local	The Sales Manager drives revenue growth, manages client relationships, negotiates contracts, and ensures alignment with company goals.
7	Accountant Manager	1	Local	The Accounting Manager oversees financial operations, ensuring accurate reporting, budgeting, and compliance while optimizing financial performance and tracking production costs.
8	Electrician	1	Local	The Electrician installs, maintains, and repairs electrical systems, troubleshooting issues and ensuring safety and efficiency.
9	Store keeper	1	Local	A Storekeeper manages the inventory of materials, tools, and equipment, ensuring accurate stock levels and timely procurement. They oversee storage, organize deliveries, and track usage to support smooth plant operations.
10	Labour	5	Local	Laborers assist with loading, unloading, and maintaining machinery, ensuring efficient material handling and production support.
11	Security Guards	2	Local	Security Guards monitor premises, conduct patrols, control access, and respond to incidents to ensure safety and security.
12	Temporary Labour	18	Local	Temporary Laborers assist with tasks like packaging, assembly, and maintenance, supporting operations during peak periods or specific projects.
	Total	**TZS**	**230364000**	

ENVIRONMENTAL AND SOCIAL IMPACT

Waste management and recycling plans

Waste management and recycling in the rice milling industry focus on efficiently handling byproducts like rice husks, bran, broken rice, dust, and wastewater. Rice husks can be repurposed for bioenergy production, animal feed, or building materials, while rice bran is valuable for oil extraction, animal feed, and cosmetics. Broken rice can be used in low-cost food products or animal feed. Dust is managed through dust collection systems, reducing air pollution, and wastewater is treated and recycled for reuse within the mill, minimizing water consumption. By implementing circular economy practices, mills can reduce waste, lower energy costs, generate additional revenue from byproducts, and comply with environmental regulations, contributing to both economic sustainability and environmental responsibility.

Compliance with environmental regulations

Compliance with environmental regulations in the rice milling industry is essential to minimize the environmental impact of operations and ensure sustainable practices. This includes adhering to waste management standards by properly disposing of or recycling byproducts like rice husks, bran, and broken rice, as well as managing dust and wastewater through filtration systems and effluent treatment plants. Mills must also follow air quality regulations to reduce emissions and particulate matter, ensure proper storage and handling of raw materials to prevent contamination, and use water resources responsibly by recycling or treating wastewater. By meeting these regulatory requirements, rice mills can operate efficiently while minimizing their ecological footprint and avoiding fines or reputational damage.

Contribution to local employment and economic growth

The rice milling industry plays a significant role in local employment and economic growth by providing job opportunities across various stages of the production process, from farming to milling and distribution. By sourcing paddy from local farmers, the industry supports agricultural livelihoods and stimulates rural economies. In the milling operations, jobs are created in production, maintenance, quality control, packaging, and logistics, helping to reduce unemployment in rural areas. Additionally, the byproducts of rice milling, such as rice husks and bran, contribute to local industries like animal feed and bioenergy, further boosting economic activity. Overall, the rice milling sector fosters economic development, increases household incomes, and supports the growth of small businesses in related industries, contributing to the overall prosperity of local communities.

FINANCIAL ANALYSIS

TOTAL INITIAL INVESTMENT

Sr. No.	Description	Total in TZs
1	Cost of Machinery (with Custom Clearance)	869400000
2	Cost of Construction (2000 sq. meter) on Lease	0
3	Pre-operative Expenses	50000000
	Total	**919,400,000**

Note: Premises just took on rent and will not be constructed. Own Facilities will be constructed after 2 years.

RAW MATERIAL PURCHASE

Sr. No.		HS Code	Quantity /Mt.	Price in FCFA per Mt.	Price Total
1	PEDDY RICE	12024210	5000	800000	4000000000
	TOTAL TZS				**4000000000**

SALES

Sr. No.	Particulars	Quantity /Mt.	Price in TZS per Mt.	TOTAL SALE IN TZS
1	RICE	3000	1500	4500000000
2	RICE BRAN & WASTAGE	2100	375	787500000
3	LOSS OF MATERIAL IN PROCESS	-900	0	0
	TOTAL IN TZS			**5287500000**

OPERATION COST:

COST OF SALARY	DETAILS/ PER KG.	SALARY	TZS/ YEAR
DETAILS AS PER SHEET ATTACHED			230364000
TOTAL IN TZS			**230364000**

COST OF LEASE	DETAILS	OTHER COST	TZS/ YEAR
RENT AS PER AGREMENT + 18% VAT	3,5 ml. /MONTH	49560000	49560000
TOTAL IN TZS			**49560000**

COST OF ELECTRICITY	UNIT CONSUMPTION	UNIT PRICE IN TZS	TZS/ YEAR
ENERGY (KWH) = POWER (WATTS) × TIME (HOURS) / 1000 120 DAYS	763560	500.00	381780000
TOTAL IN TZS			**381780000**

COST OF MARKETING & DISTRIBUTION	Details	TZS/ TOTAL	TZS/ YEAR
SALES & MARKETING COST 5% OF TOTAL SALES	5.00%	5287500000	264375000
TOTAL IN TZS			**264375000**

COST OF MAINTANANCE + OTHER	Details	TZS/ TOTAL	TZS/ YEAR
MAINTANACE COST 1% + Other Cost. 1% of Total Investment)	2.00%	919400000	18388000
TOTAL IN TZS			**18388000**

COST OF ADMINISTRATION	Details	TZS/ TOTAL	TZS/ YEAR
ADMINISTRATION COST @1%	1.00%	5287500000	52875000
TOTAL IN TZS			**52875000**

DEPRICIATION	Details	TZS/ TOTAL	TZS/ YEAR
YEARLY DEPRICIATION COST	15.00%	869400000	130410000
TOTAL IN TZS			**130410000**

COST OF FINANCE	Details	TZS/ TOTAL	TZS/ YEAR
INTERST @12%	12.00%	919400000	110328000
TOTAL IN TZS			**110328000**

COST PER YEAR	TZS	1127752000

BALANCE SHEET @100% UTILISATION OF PRODUCTIONS

Name	Total Quantity	Sales Price per Mt.	TOTAL IN TZS
SALES:			
RICE (ALL VARITIES) 50%	3000	1500	4500000000
RICE BRAN & OTHER BY PRODUCTS 35%	2100	375	787500000
			5287500000
LESS:			
PURCHASE RAW MATERIAL PURCHASE RICE PADDY			4000000000
COST OF PRODUCTION			
COST OF SALARY			230364000
COST OF LAND & BUILDING			49560000
COST OF ELECTRICITY			381780000
COST OF MARKETING & DISTRIBUTION			264375000
COST OF MAINTANANCE + OTHER			18388000
COST OF ADMINISTRATION			52875000
DEPRICIATION			130410000
			5127752000
NET PROFIT @100% CAPACITY IN TZS			**159748000**

PROJECTION FOR NEXT 5 YEARS:

PARTICULARS	1st Year Capacity	2nd Year Capacity	3rd Year Capacity	4th Year Capacity	5th Year Capacity
	80%	85%	90%	95%	100%
	TOTAL IN FCFA	TOTAL IN FCFA	TOTAL IN FCFA	TOTAL IN FCFA	TOTAL IN FCFA
SALES:					
RICE	3600000000	3825000000	4050000000	4275000000	4500000000
RICE BRAN & Other MATERIAL	630000000	669375000	708750000	748125000	787500000
	4230000000	**4494375000**	**4758750000**	**5023125000**	**5287500000**
LESS:					
PURCHASE RICE PADDY	3200000000	3400000000	3600000000	3800000000	4000000000
COST OF PRODUCTSION					
COST OF SALARY	184291200	195809400	207327600	218845800	230364000
COST OF LAND & BUILDING	39648000	42126000	44604000	47082000	49560000
COST OF ELECTRICITY	305424000	324513000	343602000	362691000	381780000
COST OF MARKETING	211500000	224718750	237937500	251156250	264375000
COST OF MAINTANANCE + OTHER	14710400	15629800	16549200	17468600	18388000
COST OF ADMINISTRATION	42300000	44943750	47587500	50231250	52875000
DEPRICIATION	104328000	110848500	117369000	123889500	130410000
	4102201600	**4358589200**	**4614976800**	**4871364400**	**5127752000**
NET PROFIT IN TZS	**127798400**	**135785800**	**143773200**	**151760600**	**159748000**

CONCLUSION

The rice milling project in Shinyanga Region, Tanzania, aims to process raw paddy into high-quality polished rice, meeting the growing demand for rice in both local and regional markets. By utilizing modern milling technologies, the project will enhance the agricultural value chain, reduce post-harvest losses, and ensure a consistent supply of polished rice. The mill will also create additional revenue streams through the efficient use of byproducts like rice husks, bran, and broken rice, which can be repurposed for animal feed, bioenergy, and other industrial uses. This initiative will significantly contribute to the local economy by providing stable market access to farmers, reducing reliance on imports, and offering employment opportunities in milling operations, logistics, and allied industries.

Furthermore, the project emphasizes sustainability by incorporating waste management practices that minimize environmental impact. By adhering to environmental regulations and employing efficient systems for recycling and reusing byproducts, the rice mill will reduce its ecological footprint while promoting economic sustainability. The establishment of this rice mill will support local agricultural development, improve food security, and foster economic growth, making it a valuable long-term investment for both the region and the country. Through its focus on innovation, sustainability, and community empowerment, their ce milling project is set to contribute significantly to the socio-economic development of Shinyanga and beyond.