

VISION CONTROL AND SUPERINDENT LIMITED

ESTABLISHMENT AND OPERATION OF PP WOVEN SACKS, PADDY MILLING AND
COFFEE CURING AND GRADING PROJECTS

BUSINESS PLAN

OCTOBER 4, 2022

VISION CONTROL AND SUPERINDENT LIMITED

Projects Locations: Mbeya, Katavi, Kagera Regions-Tanzania

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1. PROJECT INFORMATION

Project Name: Construction of Storage facilities, establishment and operating Polypropylene Woven Sacks, Paddy Milling and Coffee Curing and Grading Projects.

Project Description: The projects are involving the following capital investments:

- Acquiring Rice Milling Plant-15 tons/day for Mbarali District.
- Acquiring of PP Woven Sacks Plant-1,000 pcs/hour Capacity
- Acquiring Rice Milling Plant-15 tons/day for Katavi Region
- Acquiring of Coffee Curing& Grading plant-100 tons/day Capacity
- Construction of Warehouses as storage facilities for paddy, coffee and installation of paddy and PP woven Sacks Plants

Product/Services:

Product:	PP Woven Sacks
Service1:	Paddy Milling Services
Service2:	Coffee Curing and Grading Services
Services 3:	Paddy and Coffee Storage Services

Type of Project/Sector: Agri-processing and Manufacturing Industry

Project Proponent: Vision Control and Superintendent Limited

Target Market: Farmers, Fertilizers Importers, Agro-processors, Traders, etc.

Shareholders: Mr. Joseph Salema (50%) and Edwin A. Riwa (50%).

Project Location:

Rice Mill Projects:
Mbarali District in Mbeya Region and Mpanda District in Katavi Region

PP Woven Sacks Project:
Mbarali District in Mbeya Region

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Coffee Curing and Grading Project:

Karagwe District, Kagera Region

Project costs:

- a. PP Woven Sacks Plant: TZS 1.2882 billion
- b. Paddy Milling plant for Mbarali: TZS 822 million
- c. Paddy Milling for Mpanda: TZS 822 million
- d. Coffee Curing & Grading Plant: TZS 2.2470 billion

Total: TZS 5.1792 billion

Financing Requirement: Debt Finance- TZS 3.0316 billion and Equity-TZS 2.1476 billion

Project Justification: Present demand for paddy milling and coffee curing services, PP woven sacks and storage facilities to farmers, agro-processors and traders.

Project Partners: Farmers, Agro-Processors, Traders and Banks

2 COMPANY BACKGROUND

2.1 Background information

Vision Control & Superintendence Limited (“VCSL”) is a private limited liability company incorporated on 9th August 2002 under the laws of the United Republic of Tanzania. Since its inception until now, the company has been dealing with the following activities:

- Lashing and unlashng activities
- Vessel inspections
- Marine inspection
- Warehousing cargo movement
- Containerized and wagon/truck cargo inspection
- Fumigation services
- Collateral management services
- Monitoring services

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2.2 Past Financial Highlight

The past financial performance for the company is based on the current business of control and superintendence services are indicated in the table below

Table 1: Past Financial Performance (Amount in TZS Currency)

Particular/Year	2020	2021
Turnover	3,061,394,523	3,434,157,923
Total Assets	1,438,393,455	1,641,688,430
Total Liabilities	636,285,652	717,534,427
Total Equity	802,107,803	924,154,004
Net Profit	84,472,300	122,046,201

Source: Audited Accounts 2020 and 2021

2.3 The Shareholders

VCSL was formed by the following shareholders:

Table 2: Details of Shareholders

Sn	Name of Shareholder	Shareholding Percentage (%)
1	Joseph E. Salema	50%
2	Edwin A. Riwa	50%
Total		100%

The authorized and fully paid-up share capital TZS 10 million divided into 1,000 shares of TZS 10,000 each.

3. EXPANSION AND DIVERSIFICATION PROJECTS

3.1 Overview

VCSL is planning to expand and diversify its current business operation by constructing warehouses for commodities storage facilities and establishing and operating Two Paddy Milling Plants, Polypropylene Woven Sacks Production Plant and Coffee Curing and Grading Plant. Decision to expand and diversify its business operations is due to the following reasons:

- To add revenue stream in the existing business lines as part of the company growth strategy.
- To reduce the overall risk exposure of the company in the existing business line through diversification projects.

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Therefore, the scope of the expansion and diversification projects cover investments in the following areas:

- a. Acquiring Two Paddy Milling Plants with total milling capacity of 30 tons of rice per day. The two-paddy milling plant will provide milling services to traders, agro-processors and farmers/Cooperative Unions for a fee
- b. Acquiring Polypropylene Woven Sacks Production plant with Production Capacity of 1,000 sacks per hour. Woven sacks will be sold to farmers, individuals, agro-processors and traders for packing commodities.
- c. Acquiring Coffee curing and grading Plant with capacity to process 100 tons of parchment per day. The coffee curing plant will provide curing services to farmers, corporative unions for a fee.
- d. Construction of warehouses for providing commodities storage services to famers, agro-processors and traders for a fee.

4. BUSINESS STRATEGIES, VISION, MISSION AND OBJECTIVES

4.1 Business Strategy

To construct warehouses and establish and operate paddy milling plants, PP woven sacks production plant and coffee curing and grading plant in Mbeya, Katavi and Kagera Regions, which are considered as strategic locations contain farmers, traders and agro-processors demanding milling and curing services and packing materials for coffee, rice and paddy.

4.2 Vision

Become one of the leading paddy milling and PP woven sacks production company in East and SADC countries.

4.3 Mission

Providing Paddy Milling, Coffee curing and grading Services to farmers, agro-processors traders and produce PP woven sacks at highest standards of industrial practices, creating sustainable value to shareholders, employees, suppliers, customers, business partners, host communities and environment sustainability through optimizing company resources.

4.4 Objectives/goals

The company will create new capacity of PP woven sacks in the Packaging Industry by introducing a new plant that will use modern machinery and technology from China. The new PP woven production plant will have production capacity of 1,000 bags of PP woven sacks per hour. VCSL will also be dealing with provision of paddy milling and coffee curing and grading services to farmers, traders and agro-processors. So, through

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effective production and marketing of the product and services, the company needs to achieve the following objectives/goals:

- a. Generate Revenues of TZS 7.257 billion and profit of TZS 1.174 billion when project starts production at 80% capacity utilization in the first year of operation.
- b. To reach at least 250,000 smallholders' farmers, traders and agro-processors through paddy milling, coffee curing, storage facilities and selling PP produced PP woven sacks
- c. To create employment of more than 130 people for the local people (unskilled workforce and professionals/technicians).
- d. To contribute reduction of post-harvest loses due to relative available pp woven sacks at affordable prices
- e. To contribute to the country's economy through taxes and other levies at least TZS 100 million per annum.

4.5 SWOT Analysis

4.5.1 Strengths

- Strong managerial skills to be recruited
- Focused and committed to the business
- There is an opportunity untapped
- Adequate market survey done
- Established good relationship with farmers, agro-processors and banks

4.5.2 Weakness

- Lack of skilled manpower (this has been possible through poaching of skilled labor from other PP bags manufacturers).
- Expertise-needed to be imported to train the local ones (cost acquainted to this)
- Capital intensive project

4.5.3 Opportunities:

- There is increased demand for the PP bags, paddy milling and coffee curing services due to the increase in agriculture and agriculture related activities.
- There is increase in the private sector participation in the economy.
- The movement is heavily promoting investments in Tanzania especially Industrial Development Initiative.
- There is a growth in the provision and access of financial services to businesses and hence easy to access finance.
- There is increased population with high consumption of agriculture products

4.5.4 Threats:

- Lack of skills in the employment sector
- Changes in the government policies
- Huge investments in the economy can hamper investments by local entrepreneurs

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Commissioning	<ul style="list-style-type: none">• Installation, Trial running and <i>2-Months</i> commissioning• Set up Maintenance and operation program• Pre-marketing
Operation	<ul style="list-style-type: none">• Commencing Commercial production 2-Months• Accounting & Documentations• Quality control• R&D

6. FINANCIAL PROJECTION SUMMARY

The consolidated revenues for the expansion and diversification project indicate that projects will generate revenues of TZS 7.257 billion and Net Profit of TZS 1.174 billion beginning from the first year of operation and it further increases in the subsequent period. This shows that projects are profitable. Investment cost and income statement project are used in estimating the project payback period. The projects will payback fully the initial investment less working capital in 5 years' time.

7. RISK MANAGEMENT

The following are the major financial risks that can affect the company's business for expansion and diversification project:

- a. Failure to get the planned investment finance.
- b. Large competitors lowering their prices to unaffordable levels.
- c. Inability to achieve the projected of sales.
- d. Small operators dominating the envisaged industry.

The mitigation of the above risks lies on the fact that the company will have a multiple of production lines which will be enable to diversify the risks involved. The market for the proposed services shows demand is increasing due to growth in agricultural activities in Kagera, Mbeya and Katavi.

8. CONCLUSION AND RECOMMENDATION

VCSL is undertaking expansion and diversification project, Tanzania. The promoters are confidence that the project will operate successfully of which investors and lenders are assured return of capital invested due to the following reasons

- a. The company will recruit competent management team to run the project.

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- b. Currently, demand for the proposed paddy milling, coffee curing services and PP Woven Sacks in Tanzania are growing due to population growth.
- c. The project will be implemented under turnkey contract and hence implementation and completion risk is mitigated.

DETAILED PROJECTS ANALYSIS

Section 1: PP Woven Sacks Project-Mbarali District

Section 2: Paddy Milling Project-Mbarali District

Section 3: Paddy Milling Project-Mpanda District

Section 4: Coffee Curing Project-Karagwe District

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SECTION 1:

POLYPROPYLENE WOVEN SACKS PROJECT

1. Project Overview

The company has decided to expand its business operation by adding a new production line which will involve setting up Polypropylene (PP) Woven Sacks Project to produce PP woven Sacks. The project will be set up at Plot No. 429 & 430 Block DD Chimala Urban Area in Mbarali District, Mbeya Region, Tanzania. The company decided to invest in PP Woven sacks by entering into a new business because packaging industry is a promising sector in Tanzania.

The significant of setting up the project is to meet demand for PP woven sacks which is currently supplied by manufacturers from Dar es Salaam and Coast Region. The fact that demand for PP woven sacks in Mbeya and Southern Region is higher than supply as a result, the unmet demand is met by suppliers/traders who buy PP woven sacks from Dar es Salaam and Coast Region and sell them to Southern Region at higher prices due transportation charges. The demand for PP woven sacks is increasing because the rate of supply of PP woven sacks in Southern Region does not match with the demand due to the following reasons:

- There is a rapid growth in the sectors of agriculture, processing industries, fishing, construction and mining which require PP woven sacks as packaging materials.
- There are no PP woven sacks production projects and hence create low supply.

Therefore, Vision Control and Superintendence Limited takes advantages of current and future short supply of PP woven Sacks in Southern Highland Regions by creating new capacity in order increase production of PP woven sacks to meet current and future demand of PP woven sacks at competitive price.

2. Product Description

Polypropylene woven sacks are specializing in packing and transporting bulk commodities. Due to its strength, flexibility, durability and lower production cost, polypropylene woven sacks are most popular products in the packaging industrial for packing grain, animal feeds, fertilizer, seeds, soap powders, sugar, cement, salt and chemical in granulated form. PP woven sacks have the following advantages:

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- Affordable at lower cost
- Flexible and high strength, persistent durability
- Can be printed on both sides
- Can be stored in an open area due to UV-stability, up to 6 months
- Water and dust proof design due to inside PE liners or laminated on the outside; hence, packed materials are protected from outside humidity.
- Twisted weave and anti-skid print to prevent slipping; and
- Can be fully recycled.

As compared to jute and paper sacks, the PP sacks have higher mechanical strength, non-contaminant, excellent appearance, flexible to be manufactured at customers' needs (preferred colour and texture), easy to print logos, symbols or writings and versatility of the product.

Vision Control & Superintendence Limited is planning to set up PP woven Sacks Production project to produce PP Woven Sacks to cater for Southern Highland Regions. The proposed plant will have production capacity of 1,000 bags of PP Woven Sacks per hour and will involve capital investment in the following areas:

- a. Construction of factory buildings to house the new plant and machinery
- b. Procurement and Installation of PP woven sacks production machinery.
- c. Procurement of raw materials to cater 3-three months' production as working capital

3. Market Analysis

3.1 Target Market

Upon commencement of production, the company will sell PP Woven Sacks to the following customers:

i. Fertilizers Importers

According to Tanzania Revenues Authority (TRA), the importation of fertilizers stands at 417,242 tons equivalent to 417,242,000kg. The fertilizers importation is done in bulk through shipping consignment from abroad. Once the ship arrives at the port, the importers off-load fertilizers and re-bagging in the PP woven sacks of various sizes ranging from 5kg, 10kg, 25kg and 50kg for onward distribution to various farmers inside and outside the country. Based on the industrial experience, high percentage of fertilizers is re-bagged in 25kg and 50kg of PP Woven Sacks under the assumption of 50% by 50% respectively. Therefore, demand for PP Woven sacks to re-bag the fertilizer in 25kg and 50kg will be 8,344,840 pieces and 4,172,420 pieces respectively per annum.

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The fertilizers importers face challenges from most of the existing suppliers of PP Woven Sacks including delays to get their sacks on time as a result they incur extra charges at the port. Furthermore, the existing suppliers deliver low quality bags as a result there has been frequently bag busting during re-bagging process at the port.

The company will have production capacity of 1,000 bags of PP Woven Sacks per hour which can produce. So, it will be possible to sell PP woven sacks to the fertilizer importers.

ii. Animal feed Manufacturers

PP woven Sacks are used by the animal feeds manufacturers as packaging materials for animal feeds. According to Tanzania Animal Feed Manufacturers Association (TAFMA), animal feeds production in Tanzania stands at 1,903,000 tons per annum. This production, demands for PP woven sacks of 38,060,000 PP woven Sacks per annum for packing animal feeds for 50kg pack.

The animal feeds manufacturers face challenges from most of the existing suppliers of PP Woven Sacks including delays to get their sacks on time and low quality of PP Woven sacks.

iii. Agro processors

The agro-processing industry comprised of maize flour, wheat and rice millers using PP Woven Sacks for Packing flour, rice and wheat. Demand for PP Woven Sacks required by agro-processors is analyzed as follows:

Maize flour:

The current per capita maize flour consumption in Tanzania stands at 135kg per annum. The current population of Tanzania is 58,000,000 people translating demand maize flour to be 7,830,000 tons per annum. This demand requires about 313,200,000 PP woven sacks per annum of 25kg pack. Assuming 50% of the population is located in the urban areas and used to buy maize flour packed in the PP Woven Sacks from the millers. This translate demand for PP Woven Sacks for packing maize flour to be 156,600,000 pieces per annum

Wheat:

Wheat consumption in Tanzania stands at 1,000,000 tons per annum which is supplied by the local big millers in Tanzania like 21st Century and Packaging Limited. Demand for PP Woven Sacks for packing wheat at this level of consumptions is 40,000,000 pieces per annum assuming 25kg pack.

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Rice:

Milled rice production in Tanzania stands at 1,948,000 tons per annum which is done by local millers. At this level of production, the PP woven sacks requirement will be 77,920,000 pieces of 25kg pack.

iv. Farmers:

Farmers produce food and cash crops like maize, rice, wheat, sorghum/millet, beans/legume, cotton, sesame, potatoes etc. and production season vary from one region to another. There is a huge demand for PP Woven Sacks for packing food and cash crops. According grain report of the year 2020, grain production in Tanzania stands at 10,000,000 tons per annum which demand 100,000,000 pieces of PP Woven Sacks per annum of 100kg pack.

v. Sugar Producers

Currently, Tanzania has four big sugar factories with a total production capacity of 300,000 tons per annum. At this production capacity, demand for PP woven sacks is 12,000,000 pieces of 25kg pack.

vi. Salt Producers

Currently, Tanzania produces about 100,000 tons of salt per annum which demands about 4,000,000 pieces of PP Woven sacks of 25kg pack.

vii. Exports

Export trade is done by the businessmen who buy beans/legume and sesame from farmers and they process, grading and packing using PP Woven Sacks for export. Export is approximated at more than 500,000 tons per annum for beans/legume and sesame. At this level of exportation requires a minimum of 10,000,000 pieces of woven sacks per annum.

Generally, demand for PP woven sacks is summarized in the table below

Table 4: Summary of Demand for PP Woven Sacks

Sn	Category	25Kg PP Pack	50Kg PP Pack	100Kg PP Pack
1	Fertilizers Importers	8,344,840	4,176,420	
2	Animal Feed Manufacturers		38,060,000	
3	Maize Flour Millers	156,600,000		
4	Wheat Flour Millers	40,000,000		
5	Rice Millers	77,920,000		
6	Famers			100,000,000
7	Sugar Producers	12,000,000		
8	Salt Producers	4,000,000		

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9	Exportation	10,000,000		
Total		308,864,840	38,060,000	100,000,000

Source: Consultant

The existing suppliers can supply up to 60% of the total demand while 40% of the demand is imported particularly from Kenya. VCSL will have production capacity of 1,000 bags per hour of PP Woven Sacks equivalent which is possible to sell the products in the local market of Tanzania.

3.2 Demand Projection for PP Woven Sacks

The future demand for PP Woven Sacks is projected to grow due to the following reasons

- Tanzania Industrials Development Policy will increase investment in industrials projects including sugar production and other agro-processing industries. As a result, will increase production of goods which require packaging materials including PP woven sacks
- Tanzania is transforming agricultural sector using a mechanized and modern farming equipment as well as increase investment in irrigation infrastructure in order to increase crops productivity. As a result, more crops will be produced which require packaging materials for storage and preserving.
- There is the market opportunity in SADC Countries which require packaging materials

3.3 Marketing and Sales Strategies

Market analysis shows that demand for the PP woven sacks is met by local production and imported. The challenge faced by the local supply is due to production inefficient, lack of adequate working capital to purchase raw materials, lack of competent operators and fluctuation of raw materials prices in the world market as results goods are not delivered to customers as scheduled and low-quality supply as well.

The company has developed the following market and sales strategies in order to capture adequate market share and generate adequate revenues to meet its objectives:

- To do intensives business development to get enough customers who needs PP woven sacks and understanding their other source of supply. The approach will be persuading the customers to buy the products promising them to give good trading terms like transportation etc.

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- To make sure that the company has adequate working capital to purchase raw materials so that there will be a regular supply of PP Woven sacks to customers throughout the year.
- To recruit a General Manager, Business Development Manager and Production Manager who have adequate skills and experience in the PP woven Sacks Industries. These three key people must have already established good network in the PP Woven Sacks Packaging Industry. In addition to that, the company will recruit competent machinery operators to ensure production efficiency.
- To ensure that source of plant and machinery supply produce better quality.
- Monitoring the price of raw materials in order to control cost of raw materials
- Establish various distribution centers particularly in the Regions which have higher crops production

3.4 Competition

Competition is expected from the following main PP woven sacks producers in Tanzania:

- Azam Poly Sacks
- East African Polysacks
- Hill Packaging
- Tansack Ltd
- Hasho Packaging
- Lakairo Packaging
- Global packaging

The company competitive advantage will focus on the following areas:

- Competitive pricing will be offered
- Convenient order size will be produced
- Fast and site delivery will be assured
- Producing quality demanded by the customers
- Customer service – including provision of branding.
- New and modern machinery to produce PP woven sacks at lower cost

4. TECHNICAL ASPECTS

4.1 Technical Know-how

The technical know-how for the project will be provided by the foreign supplier based in China. This supplier will manufacture, supply, install and make trial run and commissioning of the production plant. Necessary agreement will be executed with supplier by incorporating all essential features. The main features which will be included in the contract as follows:

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- Taking out successfully trial run of the plant
- Acceptable quality of the final product in the market
- Imparting necessary training to employees in the production process
- Taking out successfully commercial production for the plant
- Penalty clause for non-performance of the plant
- Performance guarantee for a specified number of years after a commercial production

4.2 Technology

The technology that will be used to produce PP woven sacks will come from China. The technology requires minimum supervision and low labor cost and has negative environmental impact. In addition, the technology is proven as is currently used by many countries in the world for a more than a decade including Tanzania.

4.3 Plants Capacity

Given the demand for PP Woven sacks and the planned technology and investment, the envisage plant is set to produce 1,000 of PP woven sacks per hour. Assuming that the envisage plants starts operation by 2023/24, this capacity is only 20% of the projected demand for sacks. Based on this production capacity, the envisaged plant is categorised as a medium scale PP woven sacks production plant. The company' choice of this scale of operation is based on the following factors:

- Adequate capability of the company to raise fund from the external source to part finance the project as well as adequate managerial capability to implement the project.
- There is adequate market to absorb production capacity of 1,000 of sacks per hour.
- At this scale of production, the project will operate financially, economically and commercially feasible.

4.4 Production Program

The production program is scheduled based on the consideration that the envisaged plant will work for 312 days in a year, where the remaining days will be holidays and for maintenance. During the first year of operation the plant will operate at 60 percent capacity and then at 70 percent in the 2nd year and 80 percent in the 3rd year. The capacity will grow to 90 percent starting from the 4th year onwards. This consideration is developed based on the assumption that logistical barriers, staff incompetence, problem for availability of raw materials would be eliminated gradually within the first three years of operation.

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4.5 Raw Materials and Utilities

The main raw materials required in the production of PP woven sacks for packing agro-sacks are as follows:

- PP Raffia
- Calcium Carbonate-Filler
- Other Consumables-Ink, Thinner and master batch

4.6 Location and site

The project will be located at Chimala Area, Mbalari District, Mbeya Region. The area is close to the market and Utilities as well as transportation network to facilitate production and products delivery are available.

4.7 Manufacturing Process

The manufacturing of PP woven sacks has the following process:

- **Extrusions:** This is the preparation of weaving materials with various colors and size.
- **Quality control:** This takes place in two stages namely, during production of the extruder and after production of sacks.
- **Weaving:** This is the second stage for the manufacturing of PP sacks which consists of several machines. This is a process which requires more workforces in the manufacturing plant.
- **Cutting section:** This is the section which deals with the cutting of the PP sacks according to the size to be produced and as per customer requirement
- **Printing section:** This section deals with printing of labels of the PP sacks according to the customer demands.
- **Bearing section:** This section deals with pressing and packaging of PP sacks into various quantities.

4.8 Machinery and Equipment

The proposed PP woven sacks production line will consist of the following machineries

- Tape stretching line
- Winding machinery
- Water chilling machinery
- Circular looms
- Aluminum bobbin
- Roll to roll printing machinery

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- Cutting machinery
- Bale press
- Compressor
- Transformer
- Stitching machinery
- Control Panel
- Standby generator

4.9 Land and Building

Land and building for the project will be contributed by the company to install the plant. The land and construction cost are estimated at TZS 717 million

4.10 Staff Plan

The envisaged project will create 100 jobs with various supporting staff. The professionals, support staff and unskilled staff for the envisaged project shall be recruited locally while few experts will be sourced outside the country. Training of key personnel shall be conducted in collaboration with the suppliers of the plant. The training will primarily focus on the production technology, machinery maintenance and trouble shooting.

The technicians from the suppliers of the machinery will train and transfer technical knowledge to the local workforce that will be employed by the company. The company will recruit the experienced Project manager to oversee the plant implementation and operation. The company will arrange to get experienced people from other PP sacks manufacturers who have experience in operating machinery for producing agro-sacks.

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Table 5: Details of Human Resource

Sn	Category	Name	No.	Total per months	Total Per Month
I	Administration	Plant Manager	1	5,000,000	5,000,000
		Senior Accountant	1	2,500,000	2,500,000
		Commercial Manager	1	2,000,000	2,000,000
		Human Resource & Administration M	1	2,000,000	2,000,000
		Sales & Cashier	1	700,000	700,000
		Receptionist	1	400,000	400,000
		Human Resource Officer	1	800,000	800,000
		Accountant	2	1,000,000	2,000,000
		Drivers	2	350,000	700,000
		Services Supervisor	1	620,000	620,000
		Cook	1	300,000	300,000
		Office Helper	1	400,000	400,000
		Supervisor and Mechanics	2	900,000	1,800,000
		Securities	5	400,000	2,000,000
		Guardener	2	200,000	400,000
		SubTotal	23	17,570,000	21,620,000
II	Tapeline	Operators	2	420,000	840,000
		Winder	6	270,000	1,620,000
		Helpers	3	170,000	510,000
		Mechanics	1	400,000	400,000
		Sub Total	12	1,260,000	3,370,000
III	Looms	Operators	22	270,000	5,940,000
		Helpers	2	170,000	340,000
		Supervisors	2	500,000	1,000,000
		Mechanics	1	400,000	400,000
		SubTotal	27	1,340,000	7,680,000
IV	Finishing	Operators	12	220,000	2,640,000
		Helpers	10	170,000	1,700,000
		Cutting O/P	2	270,000	540,000
		Printing O/P	2	270,000	540,000
		Helpers	3	170,000	510,000
		Counting	3	170,000	510,000
		Bailers	2	220,000	440,000
		Supervisor	1	450,000	450,000
		SubTotal	35	1,940,000	7,330,000
		V	Stores & Procu	Incharge	1
Helpers	2			270,000	540,000
SubTotal	3			1,127,000	1,397,000
		Grand Total	100	23,237,000	41,397,000
		Add: Pension 10% & SDL 4.5%			6,209,550
		Workers Compensation-1%			2,069,850
		Total			49,676,400

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5 INVESTMENT AND FINANCING PLAN

5.1 Investment cost

The total project cost for the proposed plants is made up of the following items

- Land and Building
- Procurement and installation of new PP woven sacks production plants
- Furniture and Fixtures
- Pre-operating expenses for project implementation
- Initial Working capital to cater for three-month operations

The table 6: Details of estimated investment cost

Sn	Details	Amount (TZS)
1	Land and Building	717,000,000
2	Plant & Machinery	421,200,000
3	Furniture & Fixtures	10,000,000
4	Pre-operation Expenses	30,000,000
5	Initial Working Capital	100,000,000
Total		1,278,200,000

5.2 Financing Plan

Table 7: Details of Financing Plan

Item	Equity-TZS	Loan-TZS	Total-TZS
Land & Building	717,000,000		717,000,000
Plant & Machinery		421,200,000	421,200,000
Furniture & Fixtures	10,000,000		10,000,000
Pre-Operation Expenses	30,000,000		30,000,000
Working Capital		100,000,000	100,000,000
Total	757,000,000	521,200,000	1,278,200,000

Debt to Equity Ratio is 59% by 41%

6 PERMITS & REGULATION

To set up and operate the PP woven sacks Project requires the following permits

Table 8: Details of Permits and Licenses

Certificates
National Environment Certificate
OSHA
TBS

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Industrial License
TIC Certificates
Business License
Local Government Authority

The company will liaise with Government Authorities in order to get permits

7 ENVIRONMENT ISSUES

In adherence to regulations, the company has in place environment certificate from the National Environmental Management Council for the existing business operations. The environment factors will be considered in order to protect environment as well as to comply with other regulatory bodies including OSHA.

7.1 Factory Design

The factory designs are planned not only be environmentally friendly but also aesthetically appealing. The facility will comprise of the processing plant, office space, warehouse, an open and a reserve water tank which will be designed to allow adequate ventilation and lightning to minimize energy consumption.

7.2 Plants, Machinery and Equipment

The equipment designs make and capacity ratings have been carefully selected based on their suitability and minimal environmental emissions.

7.2.1 Waste Disposal

The production process flow is environmentally friendly. Waste will be collected and disposed as per municipal regulation. The company will buy recycling machinery for recycling waste produced from the production process.

8. FINANCIAL PROJECTION

The financial viabilities for the proposed PP woven sacks project are evaluated based on the following financial parameters **(Excel Sheet is Appended)**

8.1 Profitability

Based on the projected profit and loss statement, the project will generate a profit throughout its operation life. Annual net profit after tax will grow from TZS 42.853 million to TZS 2.668 billion during the life of the project. Moreover, at the end of the project life the accumulated net cash flow amounting to TZS 12.986 billion

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8.2 Ratios

In financial analysis, financial ratios and efficiency ratios are used as an index or yardstick for evaluating the financial position of a firm. It is also an indicator for the strength and weakness of the firm or a project. Using the year-end balance sheet figures and other relevant data, the most important ratios such as return on sales which is computed by dividing net income by revenue, return on assets (operating income divided by assets), return on equity (net profit divided by equity) and return on total investment (net profit plus interest divided by total investment) has been carried out over the period of the project life and all the results are found to be satisfactory.

8.3 Break-even analysis

The break-even analysis establishes a relationship between operation costs and revenues. It indicates the level at which costs and revenue are in equilibrium. To this end, the break-even point for capacity utilization and sales value estimated by using income statement projection are computed and the company has break-even capacity utilization of 55 tons of woven sacks.

8.4 Pay- back Period

The pay -back period, also called pay – off period is defined as the period required for recovering the original investment outlay through the accumulated net cash flows earned by the project.

Accordingly, based on the projected cash flow it is estimated that the project's initial investment will be fully recovered within 3.5 years.

8.5 Internal Rate of Return (IRR)

The internal rate of return (IRR) is the annualized effective compounded return rate that can be earned on the invested capital, i.e., the yield on the investment. Put another way, the internal rate of return for an investment is the discount rate that makes the net present value of the investment's income stream total to zero. It is an indicator of the efficiency or quality of an investment. A project is a good investment proposition if its IRR is greater than the rate of return that could be earned by alternate investments or putting the money in a bank account. Accordingly, the IRR of this project is computed to be 61.92% indicating the viability of the project.

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8.6 Net Present Value

Net present value (NPV) is defined as the total present (discounted) value of a time series of cash flows. NPV aggregates cash flows that occur during different periods of time during the life of a project in to a common measuring unit i.e., present value. It is a standard method for using the time value of money to appraise long-term projects. NPV is an indicator of how much value an investment or project adds to the capital invested. In principle, a project is accepted if the NPV is non-negative. Accordingly, the net present value of the project at 19% discount rate is found to be TZS 12.943 billion which is acceptable.

SECTION 2

PADDY MILLING PLANT-MBARALI DISTRICT

1. Project Description

The project entails setting up and operate paddy milling plant to produce 15 tons/day of rice each. The planned paddy milling project will be located at Chimala, Mbarali District, Mbeya Region. The company will also construct warehouse for paddy storage capacity of 10,000 tons in order provide paddy storage facilities and installing paddy milling plant. The warehouse and paddy milling plant will provide paddy storage and milling services to farmers, traders and agro-processors. In this arrangement, the company will charge storage fee of TZS 2,000 per bag of 80kg and milling fee of TZS 3,000 per bag of 80kg. Therefore, the scope of project will involve in investment in the following areas.

- Construction of warehouse
- Procurement and installation of paddy milling plant with capacity to produce 15 tons per day of rice.
- Initial working capital to support business operation including salaries and utilities

2. Products Description

Rice is a staple food consumed in both urban and rural areas. Milled rice production and consumption increases, due to population growth. Dar es Salaam is the principal end market and accounts about 60 percent of national rice consumption because Dar es Salaam is the highest urban population and the largest total population in the country followed by Mwanza. Mbeya and Morogoro regions are the main supply sources of rice.

Rice bran is a byproduct of rice milling process and it contains various antioxidants that impart beneficial effects on human health. This can be utilized for production of oil and as animal feed. Rice bran oil is a niche product and is being promoted as healthy oil. The husk is having high calorific value and used as a source of energy. The husk is a delicacy for horses and is in good demand for animal feed. Paddy will be used as the main raw materials to produce rice and annual requirements for paddy milling plant will be 6,716 tons of paddy based on 300 days production per annum.

3. Market Analysis

3.1 Overview

The project is implemented in Chimala, Mbarali District, Mbeya Region which is known for abundant production of paddy over the years. The Region supports production and

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trading of paddy as main economic activities because this is main source of income to people of Mbeya Region to get their basic needs. Paddy is used as main raw materials to produce rice for human consumption. Mbarali District produce rice in excess of demand as a result, the surplus is sold to other regions in Tanzania and neighboring countries.

On the other hand, at the foot of Chimala Mountains at Mbarali District in Mbeya Region, the landscape support agriculture and productivity has boosted. There about 5,500 hectares where paddy is grown. Kapunga Rice Project has not only become the solution for agricultural challenges but also changes lives of small holders' farmers. Production of rice at Chimala stands at 22,000 tons per annum and over 10,000 people from the neighbouring communities have benefited directly and indirectly from various farming related operations. Banks are benefited from the rice project by providing credit facilities to farmers, agro processors and traders.

Paddy surplus is sold to small scale millers within the region and traders from the other regions and neighbouring countries. Small scale millers have no capacity to process and produce high quality rice to meet quality demanded by customers in the local and international markets due to small size and poor technology of their processing machinery. Therefore, this provides investment opportunity to Vision Control and Superintendent Limited to set up a modern rice milling plant with capacity to produce 15 tons/day of rice to meet quality demanded by customers in the local and international markets.

The project is supported by the following factors which assure its sustainability

- Mbeya Region has adequate land remaining for agricultural activities to produce paddy to feed the plant. The region has adequate transport facilities which facilitate movement of goods and services in and outside.
- Due to increase in economic and social activities, Mbeya Region attracts more people to migrate in the region which increase paddy production and market for rice.

3.2 Competition

In Tanzania, there are two categories of rice mills namely, small mills that only serve their immediate communities and large-scale mills that produce and sell their rice products throughout the country.

The large-scale milling companies are able to spend significantly on marketing and enjoy customer brand recognition because they are in the business for more than ten years, have huge market and established infrastructure and strong relationship with paddy producers as well as rice traders and outlets.

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The large-scale milling companies struggle to serve remote locations due to transportation costs. They also process such high volume of rice such that quality is sometimes compromised. On the other hand, smaller outlets are typically ignored and customer support is hardly there.

As one of the small-scale rice mills in Mbarali District, Mbeya Region, VCSL offers the following competitive advantages over the competitors.

a. Location:

The paddy milling plant is located in Mbarali District famous for paddy production in Tanzania. This will ensure constant supply of paddy to feed the planned paddy milling plant.

b. Ready Customers

The company is dealing with provision of collateral management services client who get credit facilities from banks. Therefore, has assurance to get customers from bank who need credit facilities to purchase paddy under collateral management arrangement. In this arrangement customers will require storage and milling services for their paddy purchased under collateral arrangement to service their credit facilities with bank.

4. TECHNICAL ASPECTS

4.1 Technology

The proposed paddy milling technology will be supplied from China. The supplier has a wealth of experience in designing, manufacturing and installation of various cereals production machines of different capacities to meet customer needs. The technology to be involved will have the following production process:

- | | |
|-----------------------------|---|
| Pre-cleaning: | It is the process of removal of foreign materials like straw, weed, seeds, soil, etc. from paddy prior to milling. |
| De-stoning: | It is a process of removing small stones from the paddy prior to milling process. It is done by using the destoner. |
| Dehusking: | It is a process of removing the husk or outer layer of paddy to produce brown rice. |
| Separation of Paddy: | It involves the separation of hulled paddy rice from brown rice. After dehusking the husk, bran and broken rice are separated. The separation is done on the basis of difference in size, gravity, buoyancy etc. by automatic machines. |

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- Whitening or Polishing:** The white rice is obtained from brown rice using the process of abrasion or friction between two surfaces.
- Separation/grading:** Separation of rice from broken rice is carried out using different types of graders and separator. There are different indent sizes being used for separation depending on the size of grain.
- Bagging/Packing:** The milled rice is packed in different quantity according to the requirements.

4.2 Technical Arrangement

The project implementation arrangement will be under turnkey contract whereby the manufacturer of paddy milling plant will design, supply, install, trial running, commissioning and training the operators. Necessary agreement will be executed between company and the manufacturer by incorporating all essential features to minimize technical and project implementation risks:

Some of the main features which will be included in the turnkey contract are as follows:

- Taking out successfully trial run and commissioning of the project
- Acceptable quality of the final products in the market
- Imparting necessary training to employees in the production process
- Taking out successfully commercial production for the project
- Penalty clause for non-performance of the project
- Performance guarantee for a specified number of years after a commercial production

4.3 Plant Capacity

Given demand for paddy milling services and planned technology and investment, the envisage paddy milling plant set to produce 15tons/day of rice. Based on this production capacity, the envisaged plant is categorised as small-scale paddy milling project. The promoters' choice of this scale of operation is based on the fact that there is no problem for availability of paddy from farmers, traders and agro-processors that need storage and milling services.

4.4 Production program

The production program is scheduled based on the consideration that the envisaged plant will work for 300 days in a year, where the remaining days will be holidays and for maintenance. The plant is assumed to start operation 80 percent on the assumption that all factors of production including power, labour and raw materials supply are assumed to be efficiency.

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4.5 Raw materials

The main raw material for rice is paddy which will be brought by traders, farmers and agro-processors who in needs milling and storage services. There about 5,500 hectors of land in Mbarali District where paddy is grown. Kapunga Rice Project has not only become the solution for agricultural challenges but also changes lives of small holders' farmers. Production of rice at Chimala stands at 22,000 tons per annum and over 10,000 people from the neighbouring communities have benefited directly and indirectly from various farming related operations. Banks are benefited from the rice project by providing credit facilities to farmers, agro processors and traders.

4.6 Services Arrangement

The company will get paddy as raw materials direct from farmers, traders and agro-processors under collateral management arrangement with bank. The transactions works as follows

- The Bank is offering credit facilities to farmers, traders and agro-processor to finance purchase of paddy under collateral management arrangement.
- Farmers, traders and agro-processors will arrange warehouses whereby paddy to be stored under collateral management. These warehouses will be provided by VCSL at a storage fee of TZS 2,000 per bag of 80kg. In this arrangement VCSL will be a collateral manager to be appointed by the Bank to ensure that stocks to be purchased are of good quality and control movement of paddy stock in the warehouse.
- Farmers, traders and agro-processors are expected to indicate monthly volumes of paddy purchased and rice to be sold. Farmers, traders and agro-processors will provide weekly sales, stocks, and revenue returns which will be verified and confirmed by the collateral manager.

4.7 Staffing

The paddy milling plant will comprise of automatic machinery and will require total manpower of 15 people for production operations, marketing and administration with a total wage bill of TZS 7,900,000 per month. The table below indicates staff plan for milling plant in Mbarali District

Table 9: Details of Human Resource

Title	Number of Employee	Monthly Salary (TZS)	Total Monthly Salary (TZS)
Production Manager	1	1,500,000	1,500,000
Accountant	1	1,000,000	1,000,000
Maintenance Technician	2	500,000	1,000,000

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Workers-Adm & milling Operations	11	400,000	4,400,000
Total	15		7,900,000

4.8 Investment Cost and Financing Plan

The total Investment cost for the paddy milling Plant is made up of the following items:

- Land and Building
- Plant & Machinery
- Furniture & Equipment
- Pre-operation Expenses
- Working Capital

4.8.1 Investment Cost

Table 10: Investment cost and Financing Plan

Investment Details	Total-TZS
Land & Building	717,000,000
Plant & Machinery	75,000,000
Furniture and Equipment	10,000,000
Pre-operation Expenses	10,000,000
Working Capital	10,000,000
Total	822,000,000

4.8.2 Financing Plan

Table 11: Financing Plan

Investment Details	Equity-TZS	Loan-TZS	Total-TZS
Land & Building	286,800,000	430,200,000	717,000,000
Plant & Machinery		75,000,000	75,000,000
Furniture and Equipment	10,000,000		10,000,000
Pre-Operation	10,000,000		10,000,000
Working Capital	10,000,000		10,000,000
Total	316,800,000	505,200,000	822,000,000

5 FINANCIAL ASPECTS

5.1 Revenue Assumptions

- The paddy milling plant capacity will be 15 tons per day of rice. This implies that the daily paddy requirements will be 22.5 tons
- Paddy Milling fee is TZS 3,000 per bag of 80kg

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- Paddy storage fee is TZS 2,000 per bag of 80kg
- Plant is assumed to start at 80% capacity utilization

5.2 Raw Material

- No raw materials requirement but farmers, private companies and cooperative unions will bring paddy to the company for storage and milling at a fee

5.3 Direct Cost

- Water will cost TZS 200,000 per month
- Electricity power will cost TZS 10,000,000 per month

5.4 Operating Cost

- Various operating cost will be TZS 5,000,000 per month.

5.5 Loan amount

- The loan amount will be TZS 505,200,000. The loan is proposed to be repaid in five years after six months' grace period.

5.6 Depreciation & Amortization

Details	Rate
Land	0%
Factory Buildings	2%
Plant & Machinery	12.5%
Equipment	12.5%
Furniture & Fittings	12.5%
Motor Vehicles	25%
Pre-operation Expenses	20%

5.7 Financial Results:

- Projected Income statement: Revenues in Year 1: TZS 430.064 million and Net Profit will be TZS 75.317 million and hence the project is profitable
- Payback Period: Will be 7 years
- Internal Rate of Return: 15.35%
- Net Present Value: TZS 381.9 million
- Average Break Even Point: 31.43%

SECTION 2

PADDY MILLING PROJECT-MPANDA DISTRICT

1. Project Description

The project entails setting up and operate paddy milling plants to produce 15 tons/day of rice each. The planned paddy milling project will be located at Mpanda District, Katavi Region. The company will also construct warehouse with paddy storage capacity of 8,600 tons in order provide paddy storage facilities and installing paddy milling plant. The warehouse and paddy milling plant will provide paddy storage and milling services to farmers, traders and agro-processors. In this arrangement, the company will charge storage fee of TZS 2,000 per bag of 80kg and milling fee of TZS 3,000 per bag of 80kg. Therefore, the scope of project will involve in investment in the following areas.

- Construction of warehouse
- Procurement and installation of paddy milling plant with capacity to produce 15 tons per day of rice.
- Initial working capital to support business operation including salaries and utilities

2. Products Description

Rice is a staple food consumed in both urban and rural areas. Milled rice production and consumption increases, due to population growth. Dar es Salaam is the principal end market and accounts about 60 percent of national rice consumption because Dar es Salaam is the highest urban population and the largest total population in the country followed by Mwanza. Mbeya and Morogoro regions are the main supply sources of rice.

Rice bran is a byproduct of rice milling process and it contains various antioxidants that impart beneficial effects on human health. This can be utilized for production of oil and as animal feed. Rice bran oil is a niche product and is being promoted as healthy oil. The husk is having high calorific value and used as a source of energy. The husk is a delicacy for horses and is in good demand for animal feed. Paddy will be used as the main raw materials to produce rice and annual requirements for paddy milling plant will be 6,716 tons of paddy based on 300 days production per annum.

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3. Market Analysis

The project is implemented in Katavi Region which is known for abundant production of paddy over the years. The Region supports production and trading of paddy as main economic activities because this is main source of income to people of Katavi Region to get their basic needs. Paddy is used as main raw materials to produce rice for human consumption. Katavi Region produce rice in excess of demand as a result, the surplus is sold to other regions in Tanzania and neighboring countries.

The current paddy production in Katavi Region stands at 389,751 tons per annum while the region consumes 116,800 tons per annum leaving surplus of 272,951 tons which is sold to the market.

Paddy surplus is sold to small scale millers within the region and traders from the other regions and neighbouring countries. Small scale millers have no capacity to process and produce high quality rice to meet quality demanded by customers in the local and international markets due to small size and poor technology of their processing machinery. Therefore, this provides investment opportunity to Vision Control and Superintendent Limited to set up a modern rice milling plant with capacity to produce 15 tons/day of rice to meet quality demanded by customers in the local and international markets.

The project is supported by the following factors which assure its sustainability

- a. Katavi Regions have adequate land remaining for agricultural activities to produce paddy to feed the plant.
 - Transport facilities: The region has adequate transport facilities which facilitate movement of goods and services in and outside.
 - Lake Tanganyika: It is connecting to Burundi, Democratic Republic of Congo and Kigoma. There is a new Port at Kalema which is located about 124 KM from Mpanda and is under construction. The Port is targeting to provide transport and communication facilities to Kalemie Province in DRC which has population of about 400,000 and a main economic activity is mining. These areas are the target market for the rice traders and agro-processors.
- b. Due to increase in economic and social activities in Katavi Region attracting more people to migrate in the region which provides market for rice.

3.2 Competition

In Tanzania, there are two categories of rice mills namely, small mills that only serve their immediate communities and large-scale mills that produce and sell their rice products throughout the country.

The large-scale milling companies are able to spend significantly on marketing and enjoy customer brand recognition because they are in the business for more than ten years,

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have huge market and established infrastructure and strong relationship with paddy producers as well as rice traders and outlets.

The large-scale milling companies struggle to serve remote locations due to transportation costs. They also process such high volume of rice such that quality is sometimes compromised. On the other hand, smaller outlets are typically ignored and customer support is hardly there.

3.3 Competitive Advantages

As one of the small-scale rice mills in Katavi Region, VCSL offers the following competitive advantages over the competitors.

a. Location:

The paddy milling plant is located in Katavi Regions famous for paddy production in Tanzania. This will ensure constant supply of paddy to feed the paddy milling plant.

b. Ready Customers

The company is dealing with provision of collateral management services and hence has assurance to get customers from bank who need credit facilities to purchase paddy under collateral management arrangement. Customers will require storage and milling services for their paddy purchased under collateral arrangement to service their credit facilities with bank.

4. TECHNICAL ASPECTS

4.1 Technology

The proposed paddy milling technology will be supplied from China. The supplier has a wealth of experience in designing, manufacturing and installation of various cereals production machines of different capacities to meet customer needs. The technology to be involved will have the following production process:

Pre-cleaning: It is the process of removal of foreign materials like straw, weed, seeds, soil, etc. from paddy prior to milling.

De-stoning: It is a process of removing small stones from the paddy prior to milling process. It is done by using the destoner.

Dehusking: It is a process of removing the husk or outer layer of paddy to produce brown rice.

Separation of Paddy: It involves the separation of hulled paddy rice from brown rice. After dehusking the husk, bran and broken rice are

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separated. The separation is done on the basis of difference in size, gravity, buoyancy etc. by automatic machines.

Whitening or Polishing: The white rice is obtained from brown rice using the process of abrasion or friction between two surfaces.

Separation/grading: Separation of rice from broken rice is carried out using different types of graders and separator. There are different indent sizes being used for separation depending on the size of grain.

Bagging/Packing: The milled rice is packed in different quantity according to the requirements.

4.2 Technical Arrangement

The project implementation arrangement will be under turnkey contract whereby the manufacturer of paddy milling plant will design, supply, install, trial running, commissioning and training the operators. Necessary agreement will be executed between company and the manufacturer by incorporating all essential features to minimize technical and project implementation risks:

Some of the main features which will be included in the turnkey contract are as follows:

- Taking out successfully trial run and commissioning of the project
- Acceptable quality of the final products in the market
- Imparting necessary training to employees in the production process
- Taking out successfully commercial production for the project
- Penalty clause for non-performance of the project
- Performance guarantee for a specified number of years after a commercial production

4.3 Plant Capacity

Given demand for paddy milling services and planned technology and investment, the envisage paddy milling plant set to produce 15tons/day of rice. Based on this production capacity, the envisaged plant is categorised as small-scale paddy milling project. The promoters' choice of this scale of operation is based on the fact that there is no problem for availability of paddy from farmers, traders and agro-processors that need storage and milling services.

4.4 Production program

The production program is scheduled based on the consideration that the envisaged plant will work for 300 days in a year, where the remaining days will be holidays and

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for maintenance. The plant is assumed to start operation 80 percent on the assumption that all factors of production including power, labour and raw materials supply are assumed to be efficiency.

4.5 Raw materials

The main raw material for rice is paddy which will be brought by traders, farmers and agro-processors who in needs milling and storage services. The table below indicates Katavi regional paddy production statistics for the period from 2015/2016 to 2019/2020 as indicated in the table below.

Table 12: Katavi Region Paddy Production Statistics

Year	Production (MT)
2015/2016	200,157
2016/2017	204,990
2017/2018	316,631
2018/2019	196,651
2019/2020	389,751

The proposed paddy milling plants will have total installed production capacity of 15 tons per day of rice equivalent to 4,500 tons of rice per annum which requires 6,716 tons of paddy per annum. So, if we compare paddy production in the region against plant requirement we find that availability of paddy as the main raw material to feed the plant is not a problem.

4.6 Services Arrangement

The company will get paddy as raw materials direct from farmers, traders and agro-processors collateral management arrangement with bank and works as follows

- The Bank is offering credit facilities to farmers, traders and agro-processor to purchase paddy under collateral management arrangement.
- Farmers, traders and agro-processors will arrange warehouses whereby paddy to be stored under collateral management. These warehouses will be provided by VCSL at a storage fee of TZS 2,000 per bag of 80kg. In this arrangement VCSL will be a collateral manager to be appointed by the Bank to ensure that stocks to be purchased are of good quality and will inspect the stocks prior to purchase.
- Farmers, traders and agro-processors are expected to indicate monthly volumes of paddy purchased and rice to be sold. Farmers, traders and agro-processors will

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provide weekly sales, stocks, and revenue returns which will be verified and confirmed by the collateral manager.

4.7 Staffing

The paddy milling plant will comprise of automatic machinery and will require total manpower of 15 people for production operations, marketing and administration with a total wage bill of TZS 7,900,000 per month. The table below indicates staff plan for milling plant in Katavi

Table 13: Details of Human Resource

Title	Number of Employee	Monthly Salary (TZS)	Total Monthly Salary (TZS)
Production Manager	1	1,500,000	1,500,000
Accountant	1	1,000,000	1,000,000
Maintenance Technician	2	500,000	1,000,000
Workers-Adm & milling Operations	11	400,000	4,400,000
Total	15		7,900,000

5 Investment Cost and Financing Plan

The total Investment cost for the paddy milling Plant is made up of the following items:

- Land and Building
- Plant & Machinery
- Furniture & Equipment
- Pre-operation Expenses
- Working Capital

5.1 Investment Cost

Table 14: Investment cost and Financing Plan

Investment Details	Total-TZS
Land & Building	717,000,000
Plant & Machinery	75,000,000
Furniture and Equipment	10,000,000
Pre-operation Expenses	10,000,000
Working Capital	10,000,000
Total	822,000,000

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5.2 Financing Plan

Table 15: Financing Plan

Investment Details	Equity-TZS	Loan-TZS	Total-TZS
Land & Building	286,800,000	430,200,000	717,000,000
Plant & Machinery		75,000,000	75,000,000
Furniture and Equipment	10,000,000		10,000,000
Pre-Operation	10,000,000		10,000,000
Working Capital	10,000,000		10,000,000
Total	316,800,000	505,200,000	822,000,000

6. FINANCIAL ASPECTS

a. Revenue Assumptions

- The paddy milling plant capacity will be 15 tons per day of rice. This implies that the daily paddy requirements will be 22.5 tons
- Paddy Milling fee is TZS 3,000 per bag of 80kg
- Paddy storage fee is TZS 2,000 per bag of 80kg
- Plant is assumed to start at 80% capacity utilization

b. Raw Material

- No raw materials requirement but farmers, private companies and cooperative unions will bring paddy to the company for storage and milling at a fee

c. Direct Cost

- Water will cost TZS 200,000 per month
- Electricity power will cost TZS 10,000,000 per month

d. Operating Cost

- Various operating cost will be TZS 5,000,000 per month.

e. Loan amount

- The loan amount will be TZS 505,200,000. The loan is proposed to be repaid in five years after six months' grace period.

f. Depreciation & Amortization

Details	Rate
Land	0%

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Factory Buildings	2%
Plant & Machinery	12.5%
Equipment	12.5%
Furniture & Fittings	12.5%
Motor Vehicles	25%
Pre-operation Expenses	20%

g. Financial Results:

- Projected Income statement: Revenues in Year 1: TZS 373.492 million and Net Profit will be TZS 35.717 million and hence the project is profitable
- Payback Period: Will be 8 years
- Internal Rate of Return: 9.79%
- Net Present Value: TZS 41.73 million
- Average Break Even Point: 39.73%

ESTABLISHMENT AND OPERATION OF PP WOVEN SACKS, PADDY MILLING AND COFFEE CURING AND GRADING PROJECTS

SECTION 4

COFFEE CURING PROJECT-KARAGWE DISTRICT

1. Project Description

The project entails setting up and operates coffee curing and grading plant with capacity of 100 tons/day of parchment coffee. The planned plant will be located at Karagwe District, Kagera Region. The company is planned to have warehouse with storage capacity of 8,600 tons in Karagwe District. The objective of coffee curing and grading plant is to provide storage, curing and grading services to farmers group, private companies, cooperative unions and individuals. VCSSL will charge storage fee of TZS 2,000 per bag of 100kg and curing and grading fee of TZS 100,000 per ton

Therefore, the scope of project will involve in investment in the following areas.

- Construction of factory buildings and civil works.
- Procurement and installation of coffee curing and grading plant
- Initial working capital to support business operation including salaries and utilities

2. Market Analysis

The project is implemented in Karagwe District, Kagera Region which is known for abundant production of coffee over the years. The Region supports production and trading of coffee as main economic activities because this is main source of income to people of Kagera Region to get their basic needs. Coffee Parchment is used as main raw materials to produce coffee powder for human consumption. Kagera Region produce coffee in excess of demand as a result, the surplus is sold to other regions in Tanzania and foreign countries.

Kagera Region has embarked on implementation of five-year plan (2020-2025) to increase coffee production from 60,000 tons to 200,000 tons by 2025. This provides investment opportunities for coffee curing and grading project in the region.

3. Competition

Competition is expected from other coffee curing and grading operators. Company competitive advantages lie on the assurance to get customers from bank who secure loan under collateral management arrangement need storage, curing and grading services for their coffee to liquidate their loans.

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4. Technical Aspects

4.1 Technology

The proposed coffee curing and grading plant will be supplied from India and the technology to be involved will have the following production process:

- Pre-cleaning:** It is the process of removal of foreign materials like straw, weed, seeds, soil, etc. from dried coffee.
- De-stoning:** It is a process of removing small stones from the dried coffee.
- Dehusking:** Its a process of removing the husk or outer layer of dried coffee
- Polishing:** The process of obtaining final product using abrasion or friction process
- Separation/grading:** Separation of between broken coffees is carried out using different types of graders and separator. There are different indent sizes being used for separation depending on the size.
- Bagging/Packing:** The cured coffee is packed in different quantity according to the requirement.

4.2 Technical Arrangement

The project implementation arrangement will be under turnkey contract whereby the manufacturer of curing and grading plant will design, supply, install, trial running, commissioning and training the operators. Necessary agreement will be executed between company and the manufacturer by incorporating all essential features to minimize technical and project implementation risks:

Some of the main features which will be included in the turnkey contract are as follows:

- Taking out successfully trial run and commissioning of the project
- Acceptable quality of the final products in the market
- Imparting necessary training to employees in the production process
- Taking out successfully commercial production for the project
- Penalty clause for non-performance of the project
- Performance guarantee for a specified number of years after a commercial production

4.3 Plant Capacity

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Given demand for curing and grading services and planned technology and investment, the envisaged coffee curing and grading plant set to process 100 tons/day of parchments coffee. Based on this production capacity, the envisaged plant is categorised as medium-scale coffee curing and grading plant. The promoters' choice of this scale of operation is based on the fact that availability of coffee parchments from farmers who need storage and curing services is not a problem.

4.4 Production program

The production program is scheduled based on the consideration that the envisaged plant will work for 300 days in a year, where the remaining days will be holidays and for maintenance. The plant is assumed to start operation 80 percent on the assumption that all factors of production including power, labour and raw materials supply are assumed to be efficiency.

4.5 Raw materials

The main raw material is coffee parchment will be supplied by farmers, traders, cooperative unions and agro-processors. Coffee production in Kagera Region stand at 60,000 tons per annum and is planned to increase to 200,000 tons per annum. The planned coffee curing and grading plant will have installed capacity of 100 tons per day equivalent to 30,000 tons per annum. Then availability of coffee parchments as the main raw material to feed the plant is not a problem.

4.6 Staffing

The planned coffee curing and storage plant requires a total manpower of 20 people for production and operations with a total wage bill of TZS 8,200,000 per month as indicated in the table below.

Table 16: Details of Human Resource

Title	Number of Employee	Monthly Salary (TZS)	Total Monthly Salary (TZS)
Plant Manager	1	1,600,000	1,600,000
Accountants	1	1,000,000	1,000,000
Maintenance Technician	2	400,000	800,000
Workers-Adm & Operations	16	300,000	4,800,000
Total	20		8,200,000

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4.7 Investment Cost and Financing Plan

The total Investment project cost for the coffee curing and grading is made up of the following items:

- Land and Building
- Plant & Machinery
- Furniture & Equipment
- Pre-operation Expenses
- Working Capital

4.7.1 Investment Cost

Table 17: Investment cost and Financing Plan

Investment Details	Total-TZS
Land & Building	717,000,000
Plant & Machinery	1,500,000,000
Furniture and Equipment	10,000,000
Pre-operation Expenses	10,000,000
Working Capital	10,000,000
Total	2,247,000,000

4.7.2 Financing Plan

Table 18: Financing Plan

Investment Details	Equity-TZS	Loan-TZS	Total-TZS
Land and Building	717,000,000		717,000,000
Plant & Machinery		1,500,000,000	1,500,000,000
Furniture and Equipment	10,000,000		20,000,000
Pre-Operation	10,000,000		20,000,000
Working Capital	10,000,000		20,000,000
Total	747,000,000	1,500,000,000	2,247,000,000

4.8 Financial Aspects

4.8.1 Revenue Assumptions

- The curing and grading plant capacity will be 100 tons per day.
- Coffee processing fee is TZS 100,000 per ton
- Plant is assumed to start at 80% capacity utilization
- Warehouse storage capacity is 8,600 tons

ESTABLISHMENT AND OPERATION OF PP WOVEN SACKS, PADDY MILLING AND COFFEE CURING AND GRADING PROJECTS

4.8.2 Raw Material

- The main raw materials will be coffee parchment which will be brought by farmers group, cooperative unions, private companies and individuals
- The daily requirement will be 100 tons

4.8.3 Direct Cost

- Water will cost TZS 500,000 per month
- Electricity power will cost TZS 20,000,000 per month

4.8.4 Operating Cost

- Various operating cost will be TZS 30,000,000 per month.

4.8.5 Loan amount

- The loan amount will be TZS 1,500,000,000. The loan is proposed to be repaid in five years after twelve months' grace period.

4.8.6 Depreciation & Amortization

Details	Rate
Land	0%
Factory Buildings	2%
Plant & Machinery	12.5%
Equipment	12.5%
Furniture & Fittings	12.5%
Motor Vehicles	25%
Pre-operation Expenses	20%

4.8.7 Financial Evaluation

- Projected Income statement: Revenues in Year 1: TZS 2.537billion and Net Profit will be TZS 1.02 billion and hence the project is profitable
- Payback Period: Will be 2.5 years
- Internal Rate of Return: 54.77%
- Net Present Value: TZS 7.475billion
- Break Even Point: 27.48%