BUSINESS PLAN

November 2024

LENMAC COMPANY LIMITED

Contents

1.0 Introduction

Cashew is one of the most sought after nuts among dry fruits obtained from an exotic tree species. The commercial cultivation of cashew is taken up mainly in five regions in Tanzania namely Mtwara, Lindi, Ruvuma, Coast and Tanga, . The current production in Tanzania accounts for 9.46 per cent of global production. Cashew nut is formed outside the fleshy fruit known as cashew apple. At the time of maturity, the cashew apple along with seed falls down on the ground. These are collected and processed to get cashew nut.. Mtwara is the leading region in processing of cashew. More than two third of cashew processing units are in Mtwara, whereas remaining are scattered in the other regions. These units together have processing capacity of more than 200,000 tons per annum. The seeds are separated from cashew apple and dried in the sun for 4-5 days. The dried raw cashew seeds are processed to cashew nut for marketing.

In Tanzania, processing of cashew is manual and highly labour intensive process. The cashew industry is highly unorganized and scattered. Women constitute almost 90 per cent of labour force in cashew industry. Mechanization in cashew processing is picking up slowly. This model is prepared to provide guidance to start a new small scale cashew processing unit.

2.0 Promoters and Type of Concern

New entrepreneurs may start their business as an individual, proprietary concern, partnership firm or a joint stock company.

3.0 Location of Project

Our plant will be in Tandahimba district in Mtwara region which is strategically located keeping in view availability of raw materials and cheap labor. The raw cashew can be transported to processing unit from other cashew nuts growing areas.

4.0 Products and Uses

It is not possible to consume raw cashew and cashew apple. Therefore, both of them need processing before consumption. Raw cashews are processed to cashew nuts, which is one the famous dry fruits. These are consumed directly or converted to variety of products like salted cashew nuts. Cashew apple pulp rich in carbohydrates is converted to beverages and famous fermented product known as Feni. Another important byproduct of cashew industry is cashew nut shell liquid (CNSL) which is produced from cashew shells. CNSL has multiple uses in paint industry.

5.0 Market Potential

The demand for cashew nut is gradually increasing, whereas its supply is limited. Tanzania is a major producer and exporter of cashew nuts in the world. It is one of the important agricultural commodities exported from Tanzania to many countries in the world. The market potential of cashew kernel is described as under:

5.1 Domestic Market

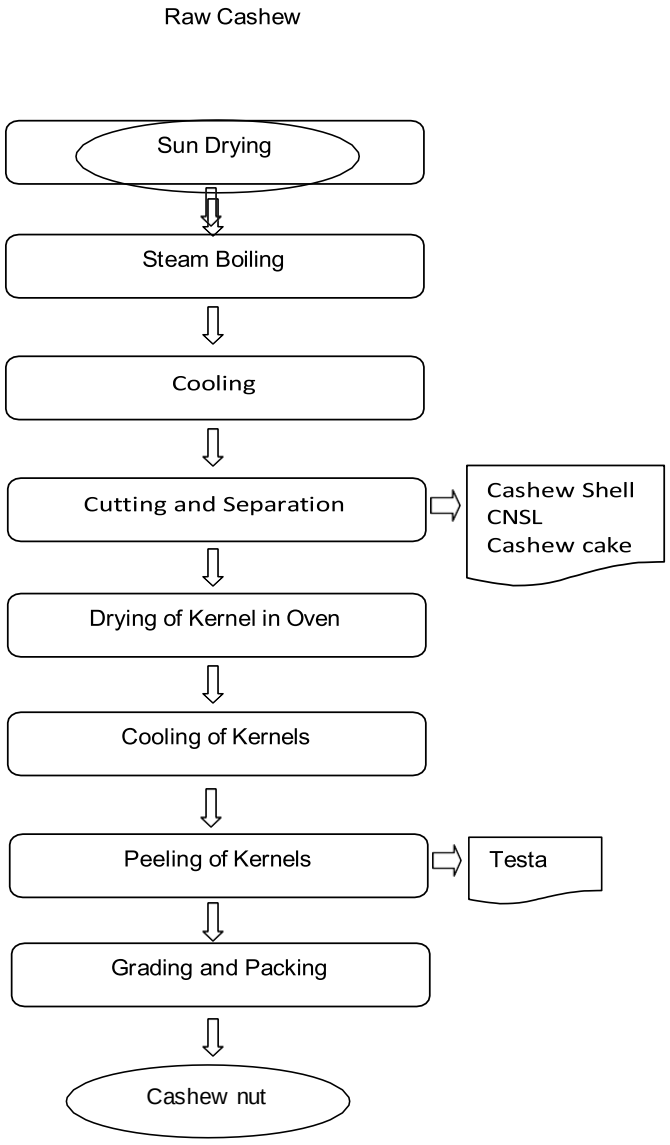
Cashew nut cultivation is limited to mostly coastal areas. But there is very high demand for cashew nut and its products from all parts of the country. The demand for cashew nut outstrips production. It is consumed by almost every household, but due to its high price it is beyond the reach of low rung population. Tanzania produces over 200,000 MT of cashew nut per annum. About a third of cashew produced in the country is consumed locally.

5.2 Export Market

Tanzania accounts for about 10 per cent of total cashew nut exports in the world and export cashew to more than 60 countries. During 2022-23, Tanzania exported 305,000 MT of cashew nut valued at $227 million to various countries.

6.0 Manufacturing Process

The process of manufacture is well-established. Raw cashew nut are dried in sun and stored in gunny bags. The stored raw cashews are boiled by using steam in a boiler. There are manufacturers of small scale boilers available for boiling of cashew nut in most of the cashew processing areas. The boiling helps in softening of cashew shell. It becomes easy to remove nut inside cashew seed after boiling. The shell of steamed cashew nut is removed by skilled labour by using cashew cutting hand operated equipments. The cashew shell is used to extract cashew nut shell liquid (CNSL), which is an important by-product of cashew industry. The cashew kernels obtained are dried in a cabinet dryer. The outer reddish skin known as testa, is removed to obtain cashew nut after drying. Actual recovery of cashew nut is around 30 per cent, whereas 50 per cent account for shell and remaining 20 per cent is process loss. Cashewnut is graded on the basis of the colour and on how the kernel is broken. The grading of cashew as per international standards .



Process flow of Cashew Processing

7.0 Raw and Packing Materials

The proposed cashew processing unit will have installed capacity for processing of 500 MT raw cashews per year for 200 days operation. The only raw material required will be cashew fruits. Obtaining around 500 tonnes of cashew fruits per season even at 100% capacity utilization will not pose any problem. Packing materials like polythene bags and second-hand corrugated boxes shall be available locally.

8.0 Project Cost

The major component of a cashew processing unit is land, building, plant and machinery and civil works. A project cost of $188,738 has been estimated. The details of project cost are given in **Table 1** and the individual components are discussed in this section.

Table .1. Project cost of small scale cashew processing unit

Sr. No.	Particulars	Amount (US$)
1	Land	3,571
2	Land development	357
	Sub Total	3,929
3	Building and civil structures (sq mt)	59,524
4	Plant and machinery	71,595
5	Miscellaneous fixed assets	1,190
6	Preliminary & Pre-operative expenses	2,976
7	Margin money for working capital	42,964
8	Contingencies @5%	6,560
	Total project cost	188,738
	Margin Money (25%)	47,190
	Bank loan (75%)	141,560

8.1 Land and Land Development

A plot of land admeasuring 500 sqm will be sufficient for small scale cashew processing unit. The site should be leveled and with open space for sun drying of raw cashew. The promoters can acquire more land keeping in view future expansion plans. The land should be free from any encumbrance and shall be mortgageable. The land should be classified as non-agriculture. Permission for non-agriculture use, wherever applicable, shall be obtained for the land. The cost of land up to a maximum of 10 per cent of project cost can be reckoned towards margin, if purchased by the promoters for the project. The land can also be taken on lease and the lease period should be sufficiently more than the repayment period of loan. The lease land should preferably be with an enabling clause for mortgage of land to banks or financial institutions. The land cost varies considerably from place to place. Land cost of $3,571 has been considered for this model. Similarly cost of land development also varies from place to place and should be considered on actual basis.

8.2 Buildings and Civil Works

The cashew processing unit requires a processing, drying, and packing area. A built-up area of 250 sqm is considered adequate for a cashew processing unit of small scale. Main processing area would require about 55-60 sqm, whereas storage and packing rooms would occupy balance area. The terrace of the unit can be used as drying yard for raw cashew. The total cost of building is estimated at $59,524. The buildings for processing of cashew should be constructed as per the international standards. The height of the building should be such that sufficient breathing space is available. All windows and doors should be provided with insect proof wire mess. Slope as per standard guidelines should be provided in floor. Glazed tiled flooring shall be preferable to ensure easy cleaning of floor after processing session.

8.3 Plant and Machinery

Cashew processing is a seasonal activity and the factory would work for about 200 days in a year. Keeping in mind the availability of raw materials and market prospects, processing capacity of 500 tonnes of raw cashew processing per season is suggested. The estimated cost of plant and machinery is $71,595. The details of plant and machinery and other equipment are given in **Table 2.**

Table.2. Plant & machinery and other equipments required by cashew processing units

S.No.	Particulars	Number	Rate	Amount (US$)
1	Steam Boiler	1	9,024	9,024
2	Cooking Vessels	2	429	858
3	Semi Automated Peeling Machine	1	9,929	9,929
4	Multi-color Cashew Kernel Sorting Machine	1	8,682	8,682
5	Husk Winnowing Machine	1	1,250	1,250
6	Steam Pipeline	1	7,262	7,262
7	Hot Oven	1	3,988	3,988
8	Hand Operated Cutting Machine	10	23	230
9	Cashew Peeling Machine	7	2,551	17,857
10	Filling Machine	1	1,256	1,256
11	Pieces separator	1	1,071	1,071
12	Weighing Machine	3	161	483
13	Sealing machine	1	42	42
14	Food grade plastic tubs, buckets, crates, bowls	LS		2,976
15	Diesel Generator Set	1	6,698	6,698
	Grand total			**71,600**

8.4 Miscellaneous Assets

Some other assets like furniture & fixtures, cashew basket, SS utensils, storage racks, working tables etc. shall be required for which a provision of $1,200 is made.

10.0 Working Capital Requirement

Time period for construction has been considered one year including preliminary work like feasibility study, DPR preparation and financial closure. The plant is expected to start its operation during 2nd year at capacity utilization of 70%, 80% and 90% during 2nd, 3rd and 4th year onwards has been considered in the model. The estimated working capital requirement is given in **Table 3**, below:

Table.3. Working capital assessment of cashew processing unit

(Amount in US$)

S.No.	Particulars	Period (days)	Yr2	Yr3
1	Raw materials stock	30	64,381	73,571
2	Work in progress	7	16,988	19,381
3	Finished goods	30	72,821	83,083
4	Debtors	7	16,988	19,381
5	Working expenses	30	679	679
	Total current assets		171,869	196,095
6	Creditors (current liabilities)	0	-	-
	Working capital gap		171,869	196,095
7	Margin money for W.C.	25%	42,964	49,024
8	Bank loan		128,905	147,071

11.0 Means of Finance

Financing to food processing falls under priority sector lending. The loans to units meeting the criteria of MSME are classified under MSME sector. Such units can be financed by any scheduled commercial banks, Regional Rural Banks and Cooperative Banks. Important terms and conditions of financing such units are discussed in this section.

11.1 Margin Money

The promoters of the units need to bring margin as per the requirement of financing banks and also as per Bank of Tanzania guideline issued from time to time. The margin money varies from minimum 10 per cent to 25 per cent of project cost. We have assumed margin money of 25 per cent in this model scheme.

11.2 Bank Loan

The promoters of the units can approach any financing bank for finance. It is compulsory to take bank loan to avail various subsidy schemes of government. Therefore, the promoters should be careful in deciding means of finance.

11.3 Security

As per Bank of Tanzania guidelines, the banks are required to take adequate security for loans extended by them. The borrowers should plan projects in such a manner that they have

enough fixed assets to offer as security against bank loan. Various types of securities considered by banks are given here:

11.3.1 Primary Security

The land and buildings acquired by bank loan are mortgaged to financing banks. The mortgage can be registered or equitable in nature. The plant, machinery and other miscellaneous fixed assets acquired by bank loan shall have to be hypothecated to bank. The value of all these assets is known as primary security for a bank.

11.3.2 Collateral Security

As the value of primary assets, especially buildings and plant and machinery is not enough to cover the bank loan, the banks insists for mortgage of any other property or asset of the company or promoters. This is known as collateral security. The higher the value of collateral softer will be the terms for financing. Therefore, entrepreneurs may offer reasonable amount of collateral security to reduce interest cost.

11.3.3 Hypothecation of Stocks

All stocks, inventories and debtors are hypothecated to financing banks as security against the bank loan extended by them.

12.0 Manpower Requirement

The cashew processing industry is highly labour intensive. The labour is required for each and every operation like loading and unloading of raw materials and finished products, drying of raw materials, processing and packing of cashew kernel. The cashew cutting and peeling is a skilled job. Most of these cashew processing activities are performed by female skilled labour on contract basis. The wages are paid on monthly basis. The processing units also need to employ permanent labour for handling various day to day operations. The detail of manpower requirement is given in Table.4.

Table.4. Manpower requirement of cashew processing unit

S. No.	Post	Number	Salary/ Wages per Month (US$)	Annual (US$)
1	Manager cum supervisor	1	2,0000	24,000
2	Skilled labour	2	800	19,200
3	Helper	1	200	2,400
	Total	**4**		**45,600**

13.0 Implementation Schedule

The time for implementation of project is an important factor to decide the viability of a project. A cashew processing unit is simple to construct. However, keeping in view preliminary activities and processes involved in project approvals etc, an implementation period of 1 year has been considered. The estimated time period required for each activity is given in **Table.5.**

Table.5. Implementation schedule for cashew processing unit.

S. No.	Activity	Period (months)
1	Feasibility Study	0.5
2	DPR preparation	0.5
3	Preliminary activities	1
4	Construction period (Civil work and placement of orders for plant and machinery	8
5	Installation of plant and machinery and trial run	2

14.0 Govt. Approvals/ Clearance Required

14.1 Prior to establishment

i. BRELA
ii. TRA
iii. TIC
iv. EPZA
v. SIDO

14.2 After establishment

i. Cashew Nut Board of Tanzania
ii. TMEX
iii. OSHA

The list is only illustrative. The entrepreneurs should undertake an exhaustive study of all rules and regulations prior to establishment of any such unit. The new entrepreneurs may take help of suitable consultant to avoid unnecessary expenditure for compliance later on.

15.0 Financial Analysis

In order to test the financial soundness of business, key financial indicators are assessed. Based on historical data on cost and prices, techno-economic assumptions are made for preparation of this model. The key techno-economic assumptions are presented in **Annexure I**. The assumptions made might vary from place to place; hence need to be considered on case-by-case basis.

15.1 Financial Indicators

Based on the assumptions on input and output parameters, an Income Expenditure statement (Cash Flow Statement) prepared is presented at **Annexure II**. The financial indicators like Net Present Worth (NPW), Benefit Cost Ratio (BCR), Internal Rate of Return (IRR) etc. analyzed by discounting cash flow @15% discounting rate are given in **Annexure III** and summary is presented in **Table.6.**

Table.6. Estimated Financial Indicators

Financial Indicators	Estimated	Requirement
NPW @ 15 % DF`	**124.18**	Should be +ve
IRR	34.27%	> 15%
BCR	1.057	Should be >1.0
DSCR	1.604	Should be >1.5

15.2 Repayment Period and Debt Service Coverage Ratio (DSCR)

The repayment period has been drawn by considering net surplus available for repayment. The bank loan with interest is repayable within 10 years with a grace period of one year. The details are presented in **Annexure IV.** The debt service coverage ratio based on assumed techno economic parameters is found satisfactory.

16.0 Depreciation Schedule

There are two different methods for assessment of depreciation on fixed assets namely Written Down Value Method (WDV) and Straight Line Method (SLM). These methods are used invariably to submit the returns to Registrar of Companies & Income Tax Authorities. We have followed WDV method for computation of depreciation in the present model and the schedule of depreciation is presented in **Annexure V.**

Annexure I
Techno Economic Parameters

Assumptions for working out economics of a 500 MT/ Annum capacity raw cashew processing plant

1. Total Installed Capacity 500 MT per annum of raw cashew.
2. The unit will operate in a single shift of 8 hours for 200 days.
3. Recovery of final products considered was 24% of raw cashew.
4. Capacity utilization: 1st year – Construction period, 2nd year – 70%, 3rd Year 80% and 4th year onwards – 90%.
5. Sales price will be $6.5/Kg for whole cashew and $5/Kg for splits
6. Cost of raw cashew including transportation $1.5 / Kg

Annexure II
Profitability Statement

i. Installed Capacity & Capacity utilization

Installed Capacity	**Yr 1**	**Yr 2**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**	**Yr 7**	**Yr 8**	**Yr9**	**Yr10**
Installed capacity - Raw cashew (tonnes)	500	500	500	500	500	500	500	500	500	500
Installed capacity - cashewnut (tonnes)	120	120	120	120	120	120	120	120	120	120
Capacity utilization (%)	0%	70%	80%	90%	90%	90%	90%	90%	90%	90%
Actual production (MT)	0	84	96	108	108	108	108	108	108	108
Whole cashew (MT)	0	67.20	76.80	86.40	86.40	86.40	86.40	86.40	86.40	86.40
Splits (MT)	0	16.80	19.20	21.60	21.60	21.60	21.60	21.60	21.60	21.60

ii. Sales Revenue

(US$)

Products	**Yr 1**	**Yr 2**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**	**Yr 7**	**Yr 8**	**Yr9**	**Yr10**
Whole cashew	0	440,000	502,857	565,714	565,714	565,714	565,714	565,714	565,714	565,714
Splits	0	85,000	97,143	109,286	109,286	109,286	109,286	109,286	109,286	109,286
Cashew shells	0	20,833	23,810	26,786	26,786	26,786	26,786	26,786	26,786	26,786
Income per annum (US$)	**0**	**545,833**	**623,810**	**701,786**	**701,786**	**701,786**	**701,786**	**701,786**	**701,786**	**701,786**

iii. Expenditure Calculation

(US$)

Particulars	**Yr 1**	**Yr 2**	**Yr 3**	**Yr 4**	**Yr 5**	**Yr 6**	**Yr 7**	**Yr 8**	**Yr9**	**Yr10**
Raw materials	-	429,167	490,476	551,786	551,786	551,786	551,786	551,786	551,786	551,786
Cutting expenses	-	27,083	30,952	34,821	34,821	34,821	34,821	34,821	34,821	34,821
Peeling expenses	-	6,000	6,857	7,714	7,714	7,714	7,714	7,714	7,714	7,714
Grading expenses	-	3,500	4,000	4,500	4,500	4,500	4,500	4,500	4,500	4,500
Packing and marketing cost	-	9,000	10,286	11,571	11,571	11,571	11,571	11,571	11,571	11,571
Fuel consumption	-	3,333	3,810	4,286	4,286	4,286	4,286	4,286	4,286	4,286
Power consumption	-	548	631	702	702	702	702	702	702	702
Staff salary	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857	6,857
Repair and maintenance (building and P&M)	655	655	655	655	655	655	655	655	655	655
Insurance of buildings and civil works	607	560	512	476	440	405	381	357	321	298
Misc Expenses	119	119	119	119	119	119	119	119	119	119
Total										

Expenditure	**8,238**	**486,821**	**555,155**	**623,500**	**623,464**	**623,429**	**623,393**	**623,369**	**623,345**	**623,321**