

# NORTHERN HIGHLANDS COFFEE COMPANY LTD

## PROPOSED BUSINESS PLAN

### FOR

## THE ESTABLISHMENT OF COFFEE PRODUCTION PLANT IN TARIME DISTRICT, MARA REGION, TANZANIA.



**Prepared by:**

Northern Highlands Company LTD,  
P O Box 235, Plot 70 – 73,  
Nyakato Industrial Areas,  
MWANZA REGION.  
WEB SITE| [www.tarimecoffee.com](http://www.tarimecoffee.com)

**Table of content**

**List of Abbreviations** .....

**EXCUTIVE SUMMARY** .....

**1.0. COFFEE INDUSTRY IN TANZANIA.** .....

    1.1. Historical overview of coffee in Tanzania. .... 2

    1.2. Coffee growing in Tanzania. .... 4

    1.3. Coffee industrial development in Tarime District – Mara region ..... 5



2.1. The Industry.....	8
2.2. Business Plan Objectives .....	8
2.3. Project Technical aspect .....	8
Step I – Planting .....	9
Step II – Harvesting the Cherries.....	9
Step III -Processing the Cherries.....	9
Step IV- Drying the Beans .....	10
Step V- Milling the Beans .....	11
Step VI-packaging and exporting the Beans .....	11
Step VIII- Roasting the Coffee.....	12
Step IX - Grinding Coffee .....	12
2.4. Project Description .....	12
2.5. Market strategies and target market .....	12
2.6. Marketing mix.....	13
2.7. Technical Characteristic of the project.....	13
2.7.1. Project Location and site analysis.....	13
2.7.2. Buildings and related fixed cost .....	15
2.7.3. Machinery and Equipment. ....	15
2.7.4.. Motor Vehicles .....	15
2.7.5. Furniture & Fittings and computers .....	15
2.7.6. Pre-Operational Expenses .....	16
2.7.7. Initial Working Capital and pre operational cost.....	16
2.7.8. Project Capital Investment Summary.....	16
2.7.9. Project Financing .....	17
2.7.10. Project Implementation .....	17
2.7.11. Explanatory Notes .....	17
2.7.12.Auxiliary Materials/ services.....	17
2.7.13. Warehousing and distribution.....	19
2.7.14. Waste management for industry .....	19
<b>3.0. MANPOWER AND PROPOSED SALARY BUDGET .....</b>	<b>20</b>
3.1. Employment.....	20
3.2. Recruitment .....	20
3.3. Training and the use of Consultants.....	20
3.4. Organization and Management .....	20
<b>4.0. FINANCIAL ANALYSIS .....</b>	<b>22</b>
4.1. Summary .....	22
<b>5.0.RISK ANALYSIS .....</b>	<b>23</b>
5.1.Risk Analysis .....	23
5.2.Macroeconomic risk analysis.....	23
5.3. Finance risk analysis .....	23
5.4. Other potential external risk.....	23
5.4. Mitigating potential risk .....	24
<b>6.0. ECONOMIC AND SOCIAL ASPECTS .....</b>	<b>25</b>
6.1. Impact Investment Index Framework.....	25
<b>7.0. FINANCIAL MODELLING AND ANALYSIS .....</b>	<b>26</b>
7.1. Project expected sales inputs.....	26
7.2. Objective and Scope of Financial Model .....	26
7.2.1. Objective .....	26
7.2.2. Scope .....	26
<b>ANNEX II – PROJECTED CASH FLOW.....</b>	<b>28</b>
<b>ANNEX IV – TESTING PROJECT VIABILITY: IRR.....</b>	<b>30</b>
<b>ANNEX V – PAY BACK PERIOD.....</b>	<b>30</b>
<b>8.0. CONCLUDING REMARKS AND WAY FORWARD.....</b>	<b>30</b>
8.1. Evidence of project viability based on financial model and policy framework support.....	30
8.2. Policy Framework Support.....	31
8.3. Conclusive Remarks and Way Forward .....	31

## List of Abbreviations

CAPEX – Capital Expenditure  
CIF- Central in Flight  
EU – European Union  
GDP – Growth Domestic Products  
Kg – kilo gram  
IRR – Internal rate of return  
MT – Metric Ton  
NBS – National Bureau of standard  
NEMC – National Environment Management Council  
LTD - Limited  
OPEX – Operating Expenditure  
MW – Mega Watts  
SIDO- Small Development Organization  
SWOC – Strength Weakness Opportunity Challenge  
TANESCO – Tanzania Electric Supply Company  
TIC- Tanzania Investment Centre  
TZS – Tanzania Shilling  
USA - United state of America  
UK – United Kingdom  
US\$ - United State Dollar  
VETA - Vocation Education Training Authority  
VAT – Value Added tax

## **EXECUTIVE SUMMARY**

Coffee may have been first introduced to Tanzania in the 16th century from modern-day Ethiopia. Rather than being brewed to produce a beverage, they were initially chewed as a stimulant. Approximately seventy percent of coffee produced in Tanzania is Arabica, with most of this grown in high altitude regions. The crop is the largest export crop and contributes \$115 million in domestic earnings. 70% of Tanzanian coffee is Arabica but it receives low prices due to poor handling, and little is processed within the country.

The Mara region has 35,000 ha that can be put under coffee production, but currently only 2,850 ha are directly under Arabica production and 50 ha under Robusta. In 1995, Mara Coffee Limited was the only player in the Mara region that understood the gap in the market in the region. Under this arrangement, Northern Highlands Coffee Company Limited planned to restoration of a long time exist company Mara Coffee LTD by purchase some of equipments and extended the abilities to positively impact the project establishment and development.

The established Northern Highlands Coffee Company Limited will modernize Mara coffee LTD by importing new factories machines and equipments for production of coffee in Tanzania. The company will have ability to produce 50Kg per hours equivalent to 400Kg per day of coffee cherries and instant coffees of 5Kg per hour equivalent to 40kg per day in a single shift of 8hours per day. Annually Projected revenue for coffee cherries is 1,067,200US\$ and instant coffee of 2,784,000US\$ totaling to 3,851,200US\$

The whole process of production line will employ 40 personnel's in 3 departments, which includes Administration (13) Finance and Marketing (9), operational Production (18). The proposed integrated project is estimated to cost a total of US\$ 1,551,000 this including, own equity of 100% as proceeds from capital contribution of the project and project economic life is estimated to 5 years while anticipated life span of project will 20year and above.

The Cost of goods (actually cost of services) is estimated to 2,186,580US\$, for every US dollar invested will bring on average at least a social return on investment of 2,300US\$ per MT annually. Total debt and liability for the first year will be US\$ 2,140,635US\$ (Working and CAPEX). Testing the project viability is positive whereas IRR is positive 10.97%, and payback period of project is within 4 years.

Northern Highlands Coffee Company Limited is necessarily accompanied by multiple risks during all the phases of the project development, construction, operation and maintenance. The right approach to manage the project in a manner is highly recommended. The project is also likely to have a positive impact on the economy of Lake Zone regions and Tanzania as a whole by creating employment, and contributing to Government revenues through various taxes, which will be paid. It also has potential for substantial exporting to foreign markets.

On the basis of all the analysis done on this Business Plan on all aspects of assessment on both SWOC Analysis, market analysis, risk analysis and the financial analysis, the proposed investment options in the processing plant as prescribed on this business plan have shown that the project is commercially viable.

### **1.0. COFFEE INDUSTRY IN TANZANIA.**

#### **1.1. Historical overview of coffee in Tanzania.**

Coffee may have been first introduced to Tanzania in the 16th century from modern-day Ethiopia. Rather than being brewed to produce a beverage, they were initially chewed as a stimulant The Haya tribe came to use coffee beans as money, and coffee growing could only be authorized by tribal leaders. Under German colonialization of the region, coffee began to be cultivated as a cash crop. The Germans weakened the control of the tribal leaders over coffee growing, thereby allowing for a

more widespread propagation of coffee plantations. From 1905 through 1912, Tanzanian coffee exports increased nearly three-fold<sup>1</sup>.

Following World War II, the British took over the region comprising modern-day Tanzania and undertook a program which would plant over ten million coffee seedlings. One region of Tanzania would come to export 6000 tons of coffee by 1925. These growers would create Tanzania's first coffee cooperative, formed to negotiate a better price for the growers.

The coffee industry of Tanzania is the 24th of coffee in world. In 2006, Tanzania produced over fifty-five million pounds of coffee beans<sup>2</sup>. Exports of coffee bring in over \$60 million dollars each year to the Tanzanian economy. While coffee has a long history in East Africa, it was not widely grown in the territory comprising modern day Tanzania until the early 1900.

## 1.2. Coffee growing in Tanzania.

Approximately seventy percent of coffee produced in Tanzania is Arabica, with most of this grown in high altitude regions such as Mount Kilimanjaro. Robusta trees are most commonly grown near Lake Victoria at a lower altitude. Most Tanzanian coffee is grown by small farmers, with 95 percent of the country's coffee farmers cultivating smaller than five acres. Often the quality of this coffee is not high enough to be sold on premium markets. Additionally, the yields of a typical coffee tree in Tanzania are comparatively low.

Coffee grown by smallholders, the crop is the largest export crop and contributes \$115 million in domestic earnings. 70% of Tanzanian coffee is Arabica but it receives low prices due to poor handling, and little is processed within the country. Over two thirds are still intercropped with bananas (Tanzania Coffee Board). In Bukoba, Robusta still dominates the crop, and production is low considering its long history of cultivation<sup>3</sup>. Contrastingly, the Moshi region of Kilimanjaro is renowned for some of the best Arabica coffee produced in Tanzania, and accounts for nearly 75% of total production. Whereas in Lake Victoria coffee is grown in Tarime – Mara region and Ukerewe – Mwanza region and Karagwe –Kagera region

## 1.3. Coffee industrial development in Tarime District – Mara region

The Mara region has 35,000 ha that can be put under coffee production, but currently only 2,850 ha are directly under Arabica production and 50 ha under Robusta. In that case, one must imagine - if 8% of unorganized cultivation and improper processing brings the industry impression to a reputation similar to Ethiopian coffee (the 'origin' of coffee) with cupping scores of over 80(!) — What actually is the **REAL** potential and **VALUE** for of Tarime coffee?

In 1995, Mara Coffee Limited was the only player in the Mara region that understood the gap in the market in the region- it sensed the potential in the industry, and it extended the abilities to positively impact farmers. It started buying coffee at favorable prices and continued for many years, additionally supporting farmers effectively through trainings in quality crop production, subsidized farm inputs, and fair market price payments towards cherry and farm dried coffee.

Mr Christopher Mwita Gachuma (CMG), a native of Tarime region and a hero for the locals, was involved in building the potential of Mara Coffee Limited and Tarime Coffee Industry. Mara Coffee

---

<sup>1</sup> [The development of coffee cultivation across Tanzania as exemplified by the Bukoba and Moshi regions](#)

<sup>2</sup> [International Coffee Organization - Total Production of Exporting Countries](#)

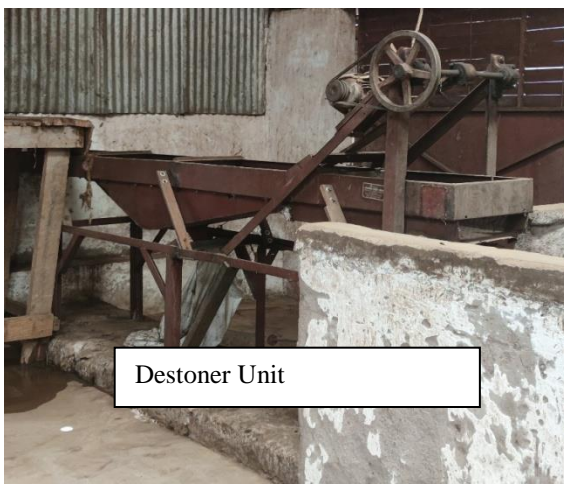
<sup>3</sup> [https://d31kydh6n6r5j5.cloudfront.net/uploads/sites/75/2019/05/coffee\\_poster.pdf](https://d31kydh6n6r5j5.cloudfront.net/uploads/sites/75/2019/05/coffee_poster.pdf)

was the major hub of all coffee activity in the region. The company was also responsible to create the fond image for Organic (IMO Certified) Tarime Coffee in European markets. Up until today, farmers and international buyers have a true fond admiration towards Mara Coffee. Whilst Mara Coffee itself closed from unforeseen circumstances in the industry locally and internationally, CMG is still extremely interested to rebuild the brand of coffee from Tarime. This time, through **Northern Highlands Coffee Company Limited**.

#### 1.4. The Northern Highlands Coffee Company Limited -Mara region

##### Stage I: Factory restoration in Tarime District

Under this arrangement, Northern Highlands Coffee Company Limited the company manage to restoration of a long time exist company Mara Coffee LTD by purchase some of equipments already in place. It sensed the potential in the industry, and it extended the abilities to positively impact the project establishment. Some includes the following units,



##### Stage II: Establishment of Northern Highlands Coffee Company Limited in Tarime district

Northern Highlands Coffee Company Limited aimed to restoration of Mara coffee premises and expands her production capacity by purchasing modern machines for coffee processing, however the company is already involve in development of project site in Tarime district, but major rehabilitation is

highly recommended that suit hygienic of production process of coffee to suit international standard. Promoters will purchase modern machinery for coffee processing complete set. The set will comply following activities: primary grain cleaning, advance seed cleaning, auxiliary machines, complete grain cleaning plant, gravity separators, bagging system, elevators conveyors, bean polishing, drum pie cleaners, grain huler, and coffee pullers. Other includes, Modern Laboratories, standby Generator and major capital expenditure will involve procurement of workshop tools and equipment, purchase of utility motor vehicles, furniture and fittings.

## 2.0. PROJECT OVERVIEW

### 2.1. The Industry

Northern Highlands Coffee Company Limited is a Tanzanian company registered in Tanzania with certificate of incorporation number 140922544 dated 30<sup>th</sup> January, 2021. The office of the company is located at Mwanza City. Mwanza region.. The project is located Tarime district about 271.2Km from Mwanza region. The permanent is P O Box 235, plot 70-73, Nyakato industrial areas, Mwanza Region.

The initial Authorized Share Capital of the company is TZS 2,000,000,000 /= divided into 2,000,000 ordinary shares of TZS 1000/- each and the company have the power to divide the original or any increased capital into several classes, and to attach thereto any preferential, deferred, qualified or other special rights privileges, restrictions or conditions. Unless the conditions of issues shall otherwise expressly declare, every issue of shares, whether preference or otherwise, or any such rights, privileges or conditions shall not be altered or modified except in accordance with the registered Articles or Association. The liability of the members is limited and the following names compromise the company ownership and principal shareholding as illustrated on Table 2.1 below.

**Table 2.1. Company Ownership and Principal Shareholders**

S/No.	Shareholder's Name	Address	Occupation of Subscriber	Number of Shares
1.	Mr. CHRISTOPHER MWITA GACHUMA, (Tanzanian) (BUSINESS MAN)	P.O. BOX 235, MWANZA TANZANIA	Private Company By Share, Domicile In Tanzania- Incorporate Number 140922544	33,333
1.	CANARY INDUSTRIALS LIMITED TANZANIA	P.O. BOX 80400, DAR ES SALAAM, TANZANIA	Private Company By Share, Domicile In Tanzania- Incorporate Number 140922544	33,333

### 2.2. Business Plan Objectives

The objectives of this study are two-fold. First is to determine the viability of the proposed project and serve as a business plan for the company's development program. Secondly, the business plan will act as a supporting document in the company's application for Tanzania Investment Centre (TIC) Certificate of Incentives so as to access exemptions on duties, VAT deferments and other benefits and protections as statutorily provided for under Tanzania Investment Act (1997).

The project promoters have commissioned a reputable engineering and project planning consulting firm to advice on detailed technical and economic evaluation of the project and in determining its viability. As the report will be used to raise debt financing for the project, it is tailored to meet standard requirements of financial institutions in the region.

### 2.3. Project Technical aspect

#### 2.3.1. Coffee processing from seeds to a cup of coffee (Technology)

The coffee you enjoy each day has taken a long journey to arrive in your cup. Between the times they're planted, picked and purchased, coffee beans go through a typical series of steps to bring out their best.

## Step I – Planting

A coffee bean is actually a seed. When dried, roasted and ground, it's used to brew coffee. If the seed isn't processed, it can be planted and grow into a coffee tree. Coffee seeds are generally planted in large beds in shaded nurseries. The seedlings will be watered frequently and shaded from bright sunlight until they are hearty enough to be permanently planted. Planting often takes place during the wet season, so that the soil remains moist while the roots become firmly established.

## Step II – Harvesting the Cherries

Depending on the variety, it will take approximately 3 to 4 years for the newly planted coffee trees to bear fruit. The fruit, called the coffee cherry, turns a bright, deep red when it is ripe and ready to be harvested. There is typically one major harvest a year. In Tanzania there are two flowerings annually, there is a main and secondary crop. In most countries, the crop is picked by hand in a labor-intensive and difficult process, the landscape is relatively flat and the coffee fields immense, the process have been mechanized. Whether by hand or by machine, all coffee is harvested in one of two ways:



**Strip Picked:** All of the cherries are stripped off of the branch at one time, either by machine or by hand.

**Selectively Picked:** Only the ripe cherries are harvested, and they are picked individually by hand. Pickers rotate among the trees every eight to 10 days, choosing only the cherries which are at the peak of ripeness. Because this kind of harvest is labor intensive and more costly, it is used primarily to harvest the finer Arabica beans.



## Step III -Processing the Cherries

Once the coffee has been picked, processing must begin as quickly as possible to prevent fruit spoilage. Depending on location and local resources, coffee is processed in one of two ways:

**The Dry Method** is the age-old method of processing coffee, and still used in many countries where water resources are limited. The freshly picked cherries are simply spread out on huge surfaces to dry in the sun. In order to prevent the cherries from spoiling, they are raked and turned throughout the day, then

covered at night or during rain to prevent them from getting wet. Depending on the weather, this process might continue for several weeks for each batch of coffee until the moisture content of the cherries drops to 11%.

**The Wet Method** removes the pulp from the coffee cherry after harvesting so the bean is dried with only the parchment skin left on. First, the freshly harvested cherries are passed through a pulping machine to separate the skin and pulp from the bean. Then the beans are separated by weight as they pass through water channels. The lighter beans float to the top, while the heavier ripe beans sink to the bottom. They are passed through a series of rotating drums which separate them by size. After separation, the beans are transported to large, water-filled fermentation tanks. Depending on a combination of factors -- such as the condition of the beans, the climate and the altitude -- they will remain in these tanks for anywhere from 12 to 48 hours to remove the slick layer of mucilage (called the *parenchyma*) that is still attached to the parchment. While resting in the tanks, naturally occurring enzymes will cause this layer to dissolve. When fermentation is complete, the beans feel rough to the touch. The beans are rinsed by going through additional water channels, and are ready for drying.

#### **Step IV- Drying the Beans**

If the beans have been processed by the wet method, the pulped and fermented beans must now be dried to approximately 11% moisture to properly prepare them for storage. These beans, still inside the parchment envelope (the *endocarp*), can be sun-dried by spreading them on drying tables or floors, where they are turned regularly, or they can be machine-dried in large tumblers. The dried beans are known as *parchment coffee*, and are warehoused in jute or sisal bags until they are readied for export.

## Step V- Milling the Beans



Before being exported, *parchment coffee* is processed in the following manner:

**Hulling** machinery removes the parchment layer (*endocarp*) from wet processed coffee. Hulling dry processed coffee refers to removing the entire dried husk — the *exocarp*, *mesocarp* and *endocarp* — of the dried cherries.

**Polishing** is an optional process where any silver skin that remains on the beans after hulling is removed by machine. While polished beans are considered superior to unpolished ones, in reality, there is little difference between the two.

**Grading and Sorting** is done by size and

weight, and beans are also reviewed for color flaws or other imperfections. Beans are sized by being passed through a series of screens. They are also sorted pneumatically by using an air jet to separate heavy from light beans.

Typically, the bean size is represented on a scale of 10 to 20. The number represents the size of a round hole's diameter in terms of 1/64's of an inch. A number 10 bean would be the approximate size of a hole in a diameter of 10/64 of an inch, and a number 15 bean, 15/64 of an inch.

Finally, defective beans are removed either by hand or by machinery. Beans that are unsatisfactory due to deficiencies (unacceptable size or color, over-fermented beans, insect-damaged, un-hulled) are removed. In many countries, this process is done both by machine and by hand, ensuring that only the finest quality coffee beans are exported.

## Step VI-packaging and exporting the Beans

The milled beans, now referred to as *green coffee*, are loaded onto ships in either jute or sisal bags loaded in shipping containers, or bulk-shipped inside plastic-lined containers.

## Step VII. Testing the coffee

Coffee is repeatedly tested for quality and taste. This process is referred to as *cupping* and usually takes place in a room specifically designed to facilitate the process.

- First, the taster — usually called the *cupper* — evaluates the beans for their overall visual quality. The beans are then roasted in a small laboratory roaster, immediately ground and infused in boiling water with carefully-controlled temperature. The *cupper noses* the brew to experience its aroma, an essential step in judging the coffee's quality.
- After letting the coffee rest for several minutes, the *cupper* breaks the crust by pushing aside the grounds at the top of the cup. Again, the coffee is nosed before the tasting begins.
- To taste the coffee, the *cupper* slurps a spoonful with a quick inhalation. The objective is to spray the coffee evenly over the *cupper's* taste buds, and then weigh it on the tongue before spitting it out.

Samples from a variety of batches and different beans are tasted daily. Coffees are not only analyzed to determine their characteristics and flaws, but also for the purpose of blending different beans or creating the proper roast. An expert *cupper* can taste hundreds of samples of coffee a day and still taste the subtle differences between them.

## **Step VIII- Roasting the Coffee**

Roasting transforms green coffee into the aromatic brown beans that we purchase in our favorite stores or cafés. Most roasting machines maintain a temperature of about 550 degrees Fahrenheit. The beans are kept moving throughout the entire process to keep them from burning.

When they reach an internal temperature of about 400 degrees Fahrenheit, they begin to turn brown and the *caffeol*, fragrant oil locked inside the beans, begins to emerge. This process called *pyrolysis* is at the heart of roasting — it produces the flavor and aroma of the coffee we drink.

After roasting, the beans are immediately cooled either by air or water. Roasting is generally performed in the importing countries because freshly roasted beans must reach the consumer as quickly as possible.

## **Step IX - Grinding Coffee**

The objective of a proper grind is to get the most flavors in a cup of coffee. How coarse or fine the coffee is ground depends on the brewing method. The length of time the grounds will be in contact with water determines the ideal grade of grind. Generally, the finer the grind, the more quickly the coffee should be prepared. That's why coffee ground for an espresso machine is much finer than coffee brewed in a drip system.

### **2.4. Project Description**

Northern Highlands Coffee Company Limited aimed at expanding her own production line by importing modernized factories machines and equipments, like Coffee Bulking machines with capacity 10MT per day, Pinholes coffee Destoner, Pinholes coffee hulling machine with capacity 10MT per day, green coffee grading machine, Penagos UCB2500 (coffee wet Processing Machine) 10MT per day and GKPX5 - Grant coffee roaster. Apart from importing the said machineries' above, the shareholders will make additional of 5 trucks for collection and distribution of raw materials and finished products.

The project will start by may 2021, promoters aimed to expands production process by purchasing advanced machines for all green coffee factory requirements. The project is expected to rehabilitated/expanded by May 2021 whereas over 75% of machines and equipment will be imported from Asian countries and raw materials will be collected from small scale farmers in Tarime district.

### **2.5. Market strategies and target market**

The market strategy will continue to focus on maintaining the business relationship with the high-end buyers who appreciate the best specialty coffee. For the roasted and ground coffee, it will focus on using its coffee shop, supermarkets, offices, universities, and other sales agents to directly access retailers and consumers of its products. Locally, NHCCL will continue to develop the farmers' collective brand and prioritize consistence in quality for the brands. Accordingly, it shall have to focus on growing presence in young people, emerging middle class level as well as high-end distribution and consumer clusters, which find specialty coffee as trendy and benefiting in terms of environmental conservation. NHCCL will also prioritize establishment of relationships with distributors selling directly to larger masses or with wide distribution networks.

The principle of high volumes with low mark-up will be emphasized to further stimulate the local consumption of coffee. Domestic coffee consumption is important to prevent or suppress a number of ill-health conditions and diseases in life-style changing eating habits. For example, the projected increase in diabetes in Africa from an incidence of 13.6 million people in 2003 to 26.9 million people

in 2025 indicating an increase of 98%. This calls for people of Africa to consume coffee. Global projections for diabetes epidemic will increase from 189 million persons in 2003 to 324 million people in 2025 (ASIC, 2007).

The Northern Highlands Coffee Company Limited; Production will be sold in the local and international markets, proportional for export to local market is 80:20, for export markets the proposed countries are mostly Asia, Europe and USA. The price of coffee is moved by a combination of supply, demand, and investor behavior. That seems simple enough, yet the way those factors work together is sometimes counter intuitive.

## **2.6. Marketing mix.**

Product/service: building on past experience of green coffee and roast & ground coffee, Northern Highlands Coffee Company Limited will launch different sizes of packs of 20grams, 50grams, 100grams, 250grams, 500grams and 1kg for different customers. Price: It will offer value for money for different sizes of packs of finished product at; US\$ 0.60, US\$1.50, US\$3.00, US\$6.50, US\$12.00 and US\$20.00 respectively. For a cup of coffee in the coffee shop, each on average will go for US\$ 1.30.

NHCCL will supply flagship products of roast and ground coffee to offices, walk-ins in the coffee shop, super markets and homes. Promotion: The entry point for promotion will be the coffee shop and the entire CAFÉ where coffee will be processed into the final consumer product. The second avenue for promotion will be participation in conferences and exhibitions with samples. Sending samples to buyers will be another marketing route. Supply and coffee value chain management with established traceability system will be adhered to. Internet coffee marketing of the best coffees will be promoted.

The processing equipment will operate at 65% of the capacity for 8 months in the first and second year and progress to 70%, through to 100% in the later years. Prices for 60% of graded green coffee for the 20MT tons (20ft container) will be at least US\$ 50,000 for both Robusta and Arabica coffee. In Tarime district only Arabica is cultivated at large. Which is equivalent to 98.27%. Prices for roast and ground will be at least US\$ 20,000 per metric ton for blended coffee. And Price of a cup of coffee will be US\$ 1.30. The average price per MT of Arabica is estimated to 2500US\$

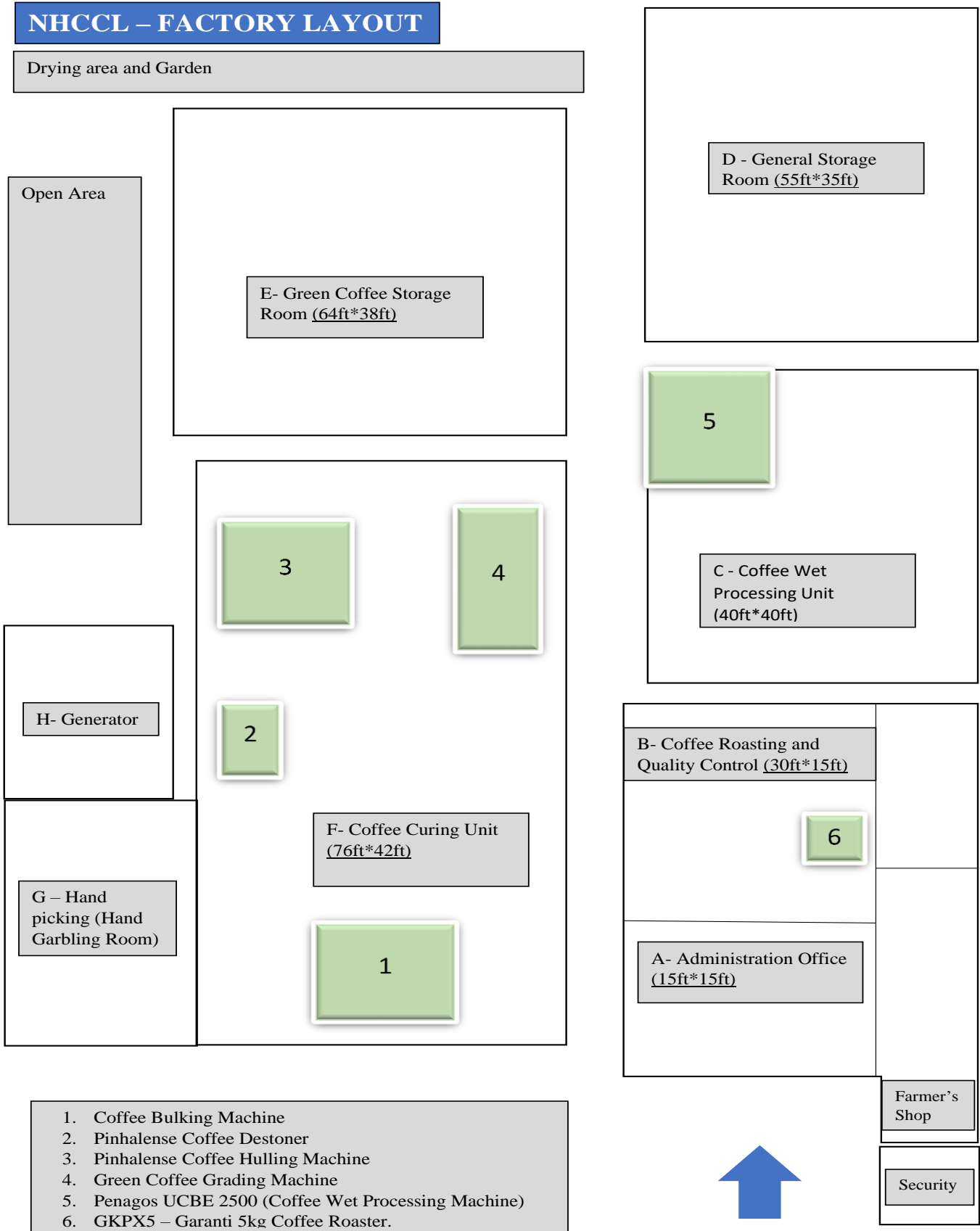
## **2.7. Technical Characteristic of the project.**

### **2.7.1. Project Location and site analysis**

The project is located at Tarime district in Mara Region. The project is 271.2Km from Mwanza region. Based on physical inspection of the proposed site, the availability of basic and essential industrial infrastructure such transport, water supply, effluent disposal, electric power supply, telecommunication system and security were all checked out and are ok for factory establishment. The realization of the project development requires successful completion of a number of necessary activities and facilities to enable a successful development of the project. The project location is already installed necessary utilities such as reliable supplies of energy, water, transportation, telecommunications services, waste disposal and other services are in place.

Project layout is as shown below.

# NHCCL – FACTORY LAYOUT



- 1. Coffee Bulking Machine
- 2. Pinhalense Coffee Destoner
- 3. Pinhalense Coffee Hulling Machine
- 4. Green Coffee Grading Machine
- 5. Penagos UCBE 2500 (Coffee Wet Processing Machine)
- 6. GKPX5 – Garanti 5kg Coffee Roaster.



### **2.7.2. Buildings and related fixed cost**

The floor plan and elevation of buildings and other related structures will be rehabilitating to Northern Highlands Coffee Company Limited as owned by the share holders. However, the total cost of Land acquisition and registration, factory buildings, Storage of cherries and roasted beans, grinding room, grading room, coffee curing units, coffee wet processing, and coffee roasting quality unit., the estimated cost of buildings and other structures is 450,000US\$, this includes Land renting, etc. Project fixed cost after operational is estimated to 1,340,000US\$ (see balance Sheet), which includes purchasing of machines, motor vehicles and structure rehabilitation.

The industry also set budget as working capital which involves purchase of raw materials and factory overhead cost of 150,000US\$.. The minor rehabilitations costs are inclusive of contingency and reflect prevailing cost of building materials and labour costs in the country. Mostly local building materials will be used in the construction of the same.

### **2.7.3. Machinery and Equipment.**

Proper machinery selection is one of the key problems in the development of an industry. The machinery must suit the two-fold requirements of the developing countries, i.e. it should be up-to-date to allow for competitive production. In view of the foregoing, an effort has been made to choose from modern technological alternatives, a level that strikes a balance between fixed costs based on depreciation and variable costs based essentially on wages.

The requirements of various items of equipment have been worked out taking into consideration the production programs, average equipment utilization and normal productivity level of an average worker etc. While working out details of equipment required, it has been assumed that the plant will be working in a single shift of 8hours a day, 25 days a month or a total of 300 days a year.

The projects machinery and equipment will be sourced from India and are estimated to cost 560,000US\$, this includes, Plant productivity capacity 5Kg per hours for instant coffee and 50Kg for green coffee cherries, a Complete set of Lab Equipments. And standby Generator and Other equipments and flight charges and contingents are inclusive. These cost assumptions are C.I.F Dar es Salaam and include installation, commissioning, consultancy, port charges and transport to the project site. Calculated depreciation of machines and other working facilities is estimated to cost 45,905US\$

Others working facilities have already in place this includes weighing scales, mini laboratory equipment, communications, computers and other office equipment, standby power generator and miscellaneous machinery and equipment.

### **2.7.4.. Motor Vehicles**

5 lorries body trucks will purchased in the first of production whereas truck will be purchased at a price of 52,000US\$ each totaling to 260,000US\$, and 2 Light Vehicles at a price of 40,000US\$ will added for smoothening distribution. Total cost for all type of truck is estimated to 300,000US\$.

### **2.7.5. Furniture & Fittings and computers**

This cost item includes the purchase of various office furniture: tables, chairs cabinets, safes, telecommunication gadgets, firefighting equipment, air conditioners etc. A budget of 10,000US\$ will be allocated from general administration budget for furniture fittings and computer accessories. The

total budget for furniture and fittings is small due to nature of industry as few or minor requirement of furniture and fittings.

### 2.7.6. Pre-Operational Expenses

Under pre-operational expenses are considered costs like company formation, preliminary project studies, business plan preparation costs, licenses, permits and authorization, including processing of TIC Certificate of Incentives, and legal fees, travelling expenses, initial recruitment and training expenses, and interest accrued during project construction period. Budget allocated for this is 60,000US\$

### 2.7.7. Initial Working Capital and pre operational cost

This item will mainly cover initial imports of raw materials estimated to last for the first three months of operations. Otherwise, raw materials will generally be maintained at one month's stock and debtors at one month's sales volume constitute the biggest portion of current assets. Trade credits will be 15 days for the items listed. The initial working capital allocated budget is 150,000US\$ while pre operational cost is estimated to 60,000US\$

### 2.7.8. Project Capital Investment Summary

Investment Summary	
Fixed Assets	Amount in US\$
Land acquisition /Rent	200,000
Buildings renovations (administration block, farmers skeeper, canteen,)	30,000
Renovation - coffee roaster quality control - Laboratory	25,000
Renovation -coffee storage room	25,000
Renovation -wet coffee processing unit	35,000
Renovation -green coffee storage room	35,000
TSF Pond for waste management	100,000
<b>SUB TOTAL</b>	<b>450,000</b>
<b>Machineries and Equipments</b>	
Coffee Bulking machines with capacity 10MT per day	200,000
Pinhlense coffee Destoner	50,000
Pinhlense coffee hulling machine with capacity 10MT per day	65,000
green coffee grading machine	75,000
Penagos UCB2500 (coffee wet Processing Machine) 10MT per day	120,000
GKPX5 - Grant coffee roaster	50,000
<b>SUB TOTAL</b>	<b>560,000</b>
<b>Motor vehicles</b>	
5 Trucks for collection of coffee from farmers	260,000
Light Vehichles for administration	40,000
<b>SUB TOTAL</b>	<b>300,000</b>
<b>Other Facilities</b>	
Furniture and fittings	5,000
Office Equipments	5,000
<b>SUB TOTAL</b>	<b>10,000</b>
Contingeuos	20,000
<b>SUB TOTAL</b>	<b>20,000</b>
<b>Sub total Fixed Assets</b>	<b>1,340,000</b>
<b>Curent Asset</b>	

Pre operational expenses	60,000
Initial working capital	150,000
<b>Sub total current Assets</b>	<b>210,000</b>
<b>Total Investment</b>	<b>1,550,000</b>
<b>Equity</b>	
<b>Loan (0%)</b>	-
<b>equity (100%)</b>	<b>1,550,000</b>
<b>Total Equity</b>	<b>1,550,000</b>

### 2.7.9. Project Financing

The project costs, including fixed costs (machinery, equipment, building renovations, motor vehicles, office furniture and equipment and pre-operation expenses will be financed by a combination of bank term loan and shareholders own resources. Working capital requirements will be financed by short term bank financing in form of overdraft facility. The project promoters are planning to finance project cost in the following pattern:

Equity	Amount in US\$
<b>Loan (0%)</b>	-
<b>equity (100%)</b>	<b>1,550,000</b>
<b>Total Equity</b>	<b>1,550,000</b>

### 2.7.10. Project Implementation

Full implementation of the project is planned to take place by May 2021. Machineries and motor vehicles will be imported immediately while construction/renovation works are in process.

### 2.7.11. Explanatory Notes

The production capacity of the plant is based on 300 working days excluding Holidays and Sunday. The factory runs per day with a maximum of 5kg per day of instant coffee and 50Kg of green coffee cherries per day. Capacity utilization of the plant is 40% - 75%, first and second year, third year the plant will be in fully operational to 100% the proposed project is a complete set of modern technology according to present of 2900 acres in production capacity. all machines are from well known Asia brands (India), after being over hauled, run 20-25 years.

### 2.7.12. Auxiliary Materials/ services

Falling under this category is packing bags, paper for bags for bran, lubricants, grease and other miscellaneous items.

#### **Utilities and service facilities that will need to be provided in this plant are as follows:**

- (i) Workshop
- (ii) Electric power
- (iii) Water supply
- (iv) Miscellaneous facilities {Canteen; First Aid Kit, Storage and transport and Office Facilities}

#### **(i) Workshop**

It is necessary to make provision for a small workshop in the plant premises so that certain maintenance operations could be carried out following sudden breakdowns and major routine matters.

The facility will comprise of necessary machines like small centre lathe, drilling machine, welding set, soldering and gas-cutting equipment including complete electrical kit to take care of necessary electrical maintenance as well as to replace worn-out parts and periodic oil and greases needs for the plant. Equipment provision has been restricted to the minimum.

#### **(ii) Electric Power and Generator**

The proposed site will be supplied with industrial production 3-phase standard power supply from Tanzania Electric Supply Company (TANESCO), the electricity is available through the National Grid Line from Mwanza to Mara region. As part of an alternative power supply, the company is already install a heavy duty 100KVA power generator automated generator that will be connected to the plant and premises for standby power supply.

The Northern Highlands Coffee Company Limited will install an online UPS system that secures clean and uninterrupted power free of surges, brownouts, fluctuations and other power problems. The client manufactures PP non-woven fabrics in a high-temperature, high-pressure environment, in which electricity interruptions cause economic and material losses. The total cost of generator not included to business plan as it's already in place.

#### **(iii) Water Supply**

Apart from the needs of electric power, water is also required for the actual process and other social needs. The proposed site has close to Tarime water supply and sanitation water network, the agency is major supplier of water to urban and peri urban area in the region., the main line is close to the proposed industry from Tarime Township. The main line from this source will be tapped and let to the land site and water collected in an overhead reservoir provided at the top of the building of the plant. Adequate provision has been made in the project cost for the overhead tank and supply and laying of pipelines etc.

#### **(iv) Miscellaneous Facilities e.g. First Aid Kit, Storage and Transport, Office Facilities etc**

- Provision has been made in the project costs for necessary facilities for external telephones and fire alarm system;
- Sickness and ill-health are recognized to be among the cause of absenteeism and low morale leading to decreased production, increased waste and bad employee-management relations. Therefore, necessary provision has been made for the canteen and first aid facilities in case of accidents, sudden sickness etc.
- Storage and transport needs of the plant have been duly recognized and been attempted mostly manual. Regarding transport, five (5) trucks with a capacity of 20 -25MT will be purchased and other hired for collection and distribution purpose of products and materials.
- Necessary provision for furniture and office equipment has been made in the Capital Cost estimates.
- Provision has also been made for the various types of weighing equipment in various sections for material-handling equipment etc.

### **2.7.13. Warehousing and distribution**

The Northern Highlands Coffee Company Limited's warehousing service is ready to meet 24/7/365 with produced products and by products and raw materials imported. The efficiency of on-site combined with focal lift is already accommodated all needs and reduce supply chain costs. The industry uses electronics inventory management system means will ready for the efficiently movements of goods to next level.

The industry will use quick dispatch for fast distribution of final products and packed by manual means or by semi-automatic machines. The industry will take Extra care is therefore taken to make it hygienic so that the products do not get spoiled during storage.

### **2.7.14. Waste management for industry**

In order to create a sustainable society, it is necessary to develop effective utilization of all sorts of wastes. One of the major wastes from our living is fiber wastes. Fiber wastes are generally divided to nonindustrial (organic chemicals) and industrial wastes (inorganic Chemicals)

In his strategic management for a Northern Highlands Coffee Company Limited's; the industry has to move from an understanding of improvement at all costs to an understanding of continuous and balanced improvement once established. In modern times, environmental protection is being implemented not because it is enforced law, but as an administrative philosophy.

Rapid degradation in environmental conditions has changed at attitude of industrial managers toward ecological environment and had them consider ecology a significant factor while taking decisions related to industrial management. Parameters responsible for environmental pollution include chemicals discharged into air, water and soil as well as energy pollution all these will taken into consideration of the proposed project. Noise pollution caused by poorly planned settlement programs is also included in this plan. Furthermore, safety and health of those working in production will be also taken into account by installing modern machines free from noise pollution.

### 3.0. MANPOWER AND PROPOSED SALARY BUDGET

#### 3.1. Employment

The whole process of production lines is looking at providing direct employment to at least 39 permanent jobs on full implementation and operation of the project. The industry is divided into 3 Departments; Administration (13) Finance and Marketing (8), operational Production (18).

#### 3.2. Recruitment

Recruitment of the 18 persons will be carried out by giving first preference to ex-technician from our local technical institutes such as Vocation Education Training Authority "VETA" and employees of Northern Highlands Coffee Company Limited in Tanzania, based on demonstration of skills and aptitude basis and their willingness to work for Northern Highlands Coffee Company Limited. Careful methodology is being worked out by a competent management consultant who will set the job descriptions. To ensure that the right calibre is recruited. Recruitment of expatriate personnel will be carried out in consultation with the relevant authorities in Government and the collaborating agencies.

#### 3.3. Training and the use of Consultants

The Company plans to initially carry out on the job training for most of the technical staff to be dispatched to the project site by the suppliers of the plant which will be specified under sales agreement. In general the company will ensure that employees acquire new skills and procedures to increase their productivity fourfold. Educational materials will be subsidized or paid for to motivate the workers to develop themselves.

Whereas the company will endeavor to obtain the best talents to fill the permanent posts in the organization, it is intended where necessary, to continue with the policy of hiring out some specialized skills by way of consultants. Alternatively, those skills not required throughout the year will be left to consultants. These include legal counsels, systems and management consultants. To ensure efficient and scientific management, operational manuals will be prepared for the core functions of the company.

#### 3.4. Organization and Management

The project will be managed by qualified professionals given the vast experience that the promoters have acquired over years in running and managing similar businesses. The Board of Directors formulates policy and offer strategic business guidance to management and regularly monitor and evaluate performance of the company.

All the production line will be under the administrator under which the day to day leader/management of production line will be vested in the management team headed by a Administrator. The Administrator is to be assisted by qualified and experienced personnel.

Table 3.1. Proposed organization and manpower requirement for the plant is as follows:

A.ADMINISTRATION DEPARTMENT	FULL TIME STAFF	MONTHLY SALARY FULL TIME STAFF	TOTAL ANNUAL SALARY
DEPARTMENT	POSTS	AMOUNT USD	AMOUNT USD
EXCUTIVE DIRECTOR	1	1,200	14,400
DIRECTOR ADMINISTRATION	1	900	10,800

LOGISTIC	1	650	7,800
DRIVER	5	300	18,000
SECURITY GUARD	5	280	16,800
<b>SUB TOTAL</b>	<b>13</b>	<b>3330</b>	<b>67,800</b>
<b>B.FINANCE DEPARTMENT AND MARKETING</b>	<b>FULL TIME STAFF</b>	<b>MONTHLY SALARY FULL TIME STAFF</b>	<b>TOTAL ANNUAL SALARY</b>
<b>DEPARTMENT</b>	<b>POSTS</b>	<b>AMOUNT USD</b>	<b>AMOUNT USD</b>
DIRECTOR FINANCE	1	1,200	14,400
SALES MANAGER	2	850	20,400
ACCOUNTANT	2	1200	28,800
PROCUREMENT OFFICER	2	1000	24,000
DRIVER	2	350	8,400
<b>TOTAL</b>	<b>9</b>	<b>4600</b>	<b>96,000</b>
<b>C. OPERATIONAL DEPARTMENT</b>	<b>FULL TIME STAFF</b>	<b>MONTHLY SALARY FULL TIME STAFF</b>	<b>TOTAL ANNUAL SALARY</b>
<b>DEPARTMENT</b>	<b>POSTS</b>	<b>AMOUNT USD</b>	<b>AMOUNT USD</b>
QUALITY MANAGER	2	700	16,800
SUPERVISORS	4	600	28,800
OPERATORS	12	300	43,200
<b>TOTAL</b>	<b>18</b>	<b>1600</b>	<b>88,800</b>
<b>GRAND TOTAL</b>	<b>40.00</b>	<b>9,530.00</b>	<b>252,600.00</b>

## 4.0. FINANCIAL ANALYSIS

### 4.1. Summary

The proposed integrated project is estimated to cost a total of US\$ 1,550,000 this including, own equity of 100% as proceeds from capital contribution of the project,. Current asset of 321,500US\$, Fixed asset after operational of 1,340,000US\$ with total liabilities of 2,140,635\$. Project economic life is anticipated to 5 years, but life span of project will 20year and above.

The Cost of goods (actually cost of services) on procurement of materials of US\$ 2,500,000, salaries is estimated to 252,600US\$ with social security charges of 50,520US\$, transportation for collection and distribution is estimated to 100,000US\$, fuel and lubricants 120,000US\$, administration cost 60,000US\$ in combination of other related cost of project operation totaling to 3,326,120US\$ (see Annex I)

On the other hand, the total projected income streams include revenues from sales in cash amounting to 3,851,200US\$. For every US dollar invested will bring on average at least a social return on investment of 2,300US\$ per MT annually for coffee cherries and 8000US\$ for instant coffee. NHCCL's revenues increases by 5%, due to high capital investment, the first year of operation will require a net earnings of 321,500US\$ before deduction of corporate tax and depreciation. (see annex I and expected sales input table)

Total debt and liability for the first year will be US\$2,140,635US\$ (Working and CAPEX). The business will start to have a positive cash balance from the first year of operation amounted to 525,080US\$ and increase positively (see annex II and III as liquidity)

The fixed assets will be financed by equity of US\$ 1,595,515 and there is no short and long term loan (appendix: III). Therefore, the total input monetary (investments costs) for the first year amounts to US\$ 1,550,000US\$ see equity loan ratios table above.

Gross sales contribution in the first year of production is 14% which increases tremendously in the second years up to 5 year, the end balance of project in cash flow statement is positive and increases tremendous. (See annex II). Testing the project viability is positive whereas IRR is positive 10.97%, and payback period of project is within 4 years (see annex IV) debit capital ratios is 25% and increases while equity/liability above 75% decreases in the second years but increases to the third years .

## 5.0.RISK ANALYSIS

### 5.1.Risk Analysis

Risk is the probability that an event or action will adversely affect the organization. Risk assessment is the identification and analysis of risks associated with the achievement of operations, financial reporting and compliance goals and objectives. Risk management is a central part of the Northern Highlands Coffee Company Limited. The Industry's management will determine the level of operations, financial and compliance risk they are willing to assume. Risk assessment is one of the Company's management responsibilities.

### 5.2.Macroeconomic risk analysis

Since early 1986, the government of Tanzania has launched a comprehensive economic policy and stabilization plan with the aim to enhance the amount of infrastructure construction and improve the lives of the poor. During this time the main economic indicators significantly improved. However, uneven development of various region in the country, lack of relevant infrastructure in transportation, telecommunications, networking, health facilities, electricity and water supplies have proven to be investment barriers. Overall, Tanzania has a weak economic foundation but the project can achieve a greater impact in attaining social and economic goals for the country.

### 5.3. Finance risk analysis

- a) **Supply Risk:** The risk in Primary production relates to supply of raw material, transportation and price fluctuations. There is no assurance of enough supply of raw materials in the local market instead mostly of raw materials are imported.
- b) **Processing Risks:** The technology, machines and equipment used in gold processing are in rudimentary stages all of which contribute to reducing production efficiency. Also quality/food safety and standards consideration in the production environment is limited. In gold processing facilities operation know-how is very low as there are notarized labourers.
- c) **Sales/market risk:** Placing value added products on the consumer markets bears risk of demand fluctuations and rejections through retailers. Furthermore, distributor are not aware of the selling price mostly are controlled by world market.

### 5.4. Other potential external risk

- a) **Lack of Governance:** the governance mechanism in the value chain is underdeveloped, actors operate in an uncoordinated and unorganized fashion, and if rules exist they are often ignored;
- b) **Lack of market coordination:** No lead organization has a coordinating role in relation to markets, technology and information such that producers and processors have no incentives for improving neither their product nor the chain process to promote sustainable income earning opportunities;
- c) **Unclear and conflicting roles regulatory authorities:** Regulatory Agencies are responsible for quality control as well as enforcing TBS, NEMC etc, are regulatory role in issuing licensing etc
- d) **Industry associations:** Associations are weak at all levels of the chain;
- e) **Operating procedures:** Standard procedures are inadequately enforced, or not enforced at all, because of relaxed production and trade regulations; and

f) **Integration:** there is little vertical integration of importers, mid chain actors and processors.

#### **5.4. Mitigating potential risk**

The development of a large and complex project such as Northern Highlands Coffee Company Limited is necessarily accompanied by multiple risks during all the phases of the project development, construction, operation and maintenance. The right approach to manage the project in a manner which is fairly and adequately address the multiple risks in a comprehensive as well as systematic manner is to use the risk analysis and management methodology which identifies the risk issues and their instrumental cause. In this regard, the risk is eliminated or effectively managed by the party best suited with capacity to handle or deal with the risk factors.

## 6.0. ECONOMIC AND SOCIAL ASPECTS

The project is also likely to have a positive impact on the economy of Lake Zone regions and Tanzania as a whole by creating employment, and contributing to Government revenues through various taxes, which will be paid. It also has potential for substantial exporting to foreign markets especially to neighboring countries in the Great Lakes Region. In summary the following table will show impact investment index framework.

### 6.1. Impact Investment Index Framework

Impact Investment Index		
Frame Work for Northern Highlands Coffee Company Limited		
Performance Area	Quantitative Indicator	Remarks
<b>Investment Capital</b>	Total investment capital, CAPEX and OPEX US\$ 1,333,000US\$	Substantial amount of capital invested into the domestic economy.
<b>Export Earnings</b>	Indicative Annual sales of 80% earnings of 3,080,960US\$ out of annual average collection of 3,851.200US\$ for the project will be exported.	Increased foreign earnings.
<b>Job requirements</b>	Job creation after plant in operation 2021-2022. DIRECT TANZANIAN JOBS 40 local employed	<ul style="list-style-type: none"> <li>Reasonable number of direct job created to local Tanzanians with direct impact on poverty reduction through enhanced income generation; and</li> <li>Improving skills development for Industrial production</li> </ul>
<b>Technology applied</b>	High Tech Environmentally friendly machinery	<ul style="list-style-type: none"> <li>Enhancing technological transfer; and</li> <li>Applied technology which is free from environmental pollution,</li> </ul>
<b>Other Implied Project Benefits</b>		
<ul style="list-style-type: none"> <li>Increased sales to the Utility Companies providing services of electricity, water and sewerage, telecommunications;</li> <li>Increased business transacted by local banks and institutions providing financial services;</li> <li>Business opportunities for local entrepreneurs in market distribution channels,</li> <li>Business opportunities to contractors and sub-contractors during the minor construction phase;</li> <li>Increased regional intra-trade and international trade due to better infrastructure facility and links to markets;</li> <li>Increase of technology transfer &amp; expertise to local employed staff,</li> <li>Capital spends in local economy over 1550,000US\$ and</li> <li>Contribution to GDP growth through increased economic activities</li> </ul>		

Based on the Impact Investment Index analysis, the company can develop projections that the project can deliver both value for money in the context of broad socioeconomic impact and return on investment while complying with governance requirements. In this regard therefore, Northern Highlands Coffee Company Limited will promote the industrialization process in the country, create employment, attract new technologies, expand foreign exchange earnings and ultimately contribute substantially to the country's economic growth.

## 7.0. FINANCIAL MODELLING AND ANALYSIS

The Financial Modelling and analysis, is the main source of information for assessing the potential financial viability of the Northern Highlands Coffee Company Limited. The analysis is based on the assumptions that have been taken for the implementation of the site development, demand and the associated potential investment requirements for a 5 year time period. The purpose of establishing this gold processing plant is to speed up the country's economic development by being a catalyst for restructuring the existing local industrial set up and attracting new, both foreign and domestic entrepreneurs to a liberalized legal business framework.

### 7.1. Project expected sales inputs

Expected sales out put	Amount in US\$
Annual production of coffee for 2900Acres in Tarime MT 40% land utilization	1,160.00
Selling price per MT - Green coffee	2,300.00
Production per day Green Coffee/ 50kg per hours equiv. 400Kg per day	400.00
selling price per MT - Instant coffee	8,000.00
Production per day instant coffee 5kg per hour equiv. 40kg per day	40.00
Annual sales of green coffee - cherries	1,067,200.00
Annual sales of instant coffee	2,784,000.00
<b>Total Sale Revenue</b>	<b>3,851,200.00</b>

### 7.2. Objective and Scope of Financial Model

#### 7.2.1. Objective

The main objective of the financial modelling and analysis is to setup a financial model framework for potential generated revenues and operational & maintenance costs for the full operation of Northern Highlands Coffee Company Limited based on the assumptions taken for the Market Analysis, the plan for the facility development, unit production costs and other overhead and operational charges.

#### 7.2.2. Scope

The scope consists of a financial model that will be used to analyse the potential financial viability of the project based on the assumptions taken for the concept and scope of the processing factory on the Market Analysis. The financial model has been developed in excel spread sheet and include information on costs, expenses and the subsequent sales revenue based on the average market prices and linked to the financial cash flow.

**ANNEX I INCOME STATEMENT**

(all numbers in US\$)

<u>Revenue</u>							
	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>TOTAL</u>
<b>Revenue Generated from coffee production</b>	-						
Annual sales of green coffee - cherries		1,067,200	1,120,560	1,176,588	1,235,417	1,235,417	5,835,183
Annual sales of instant coffee		2,784,000	2,923,200	3,069,360	3,222,828	3,222,828	15,222,216
<b>Total Operating Revenue</b>	-	<b>3,851,200</b>	<b>4,043,760</b>	<b>4,245,948</b>	<b>4,458,245</b>	<b>4,458,245</b>	<b>21,057,399</b>
<u>Expenses</u>							
	<u>Year 0</u>	<u>Year 1</u>	<u>Year 2</u>	<u>Year 3</u>	<u>Year 4</u>	<u>Year 5</u>	<u>Total</u>
Salaries		252,600	260,178	267,983	276,023	276,023	1,332,807
Social Charges & Pension Payments		50,520	52,036	53,597	55,205	55,205	266,561
purchase coffee from farmers		2,500,000	2,575,000	2,652,250	2,731,818	2,731,818	13,190,885
Transportation collection and distribution		100,000	103,000	106,090	109,273	109,273	527,635
Fuel and Lubricants		120,000	123,600	127,308	131,127	131,127	633,162
Security system and services		12,000	12,360	12,978	13,627	13,627	64,592
Administrative expenses		60,000	61,800	63,654	65,564	65,564	316,581
Insurance/licensing/healthy premium/other charges		21,000	21,630	22,279	22,947	22,947	110,803
Utilities (Electricity and water supply)		150,000	154,500	159,135	163,909	163,909	791,453
Other Costs		60,000	61,800	63,654	65,564	65,564	316,581
<b>Total Operating Costs</b>		<b>3,326,120</b>	<b>3,425,904</b>	<b>3,528,928</b>	<b>3,635,055</b>	<b>3,635,055</b>	<b>17,551,062</b>
<b>Operational Net Earnings before Depreciation, Interest &amp; Tax</b>		<b>525,080</b>	<b>617,856</b>	<b>717,020</b>	<b>823,190</b>	<b>823,190</b>	<b>3,506,337</b>
<i>%age Gross Contribution</i>		<i>14</i>	<i>15</i>	<i>17</i>	<i>18</i>	<i>18</i>	<i>1</i>
Depreciation at 5 -12.5 % (mostly civil works)		45,945	54,062	62,739	72,029	72,029	315,570
<b>Net Earnings before Tax &amp; Interest</b>		<b>479,136</b>	<b>563,794</b>	<b>654,281</b>	<b>751,161</b>	<b>751,161</b>	<b>3,190,766</b>
Interest Paid (Bank Loan)		-	-	-	-	-	-
<b>Tax (30%)</b>		<b>157,636</b>	<b>185,488</b>	<b>215,258</b>	<b>247,132</b>	<b>247,132</b>	<b>1,052,646</b>
<b>Net Earnings</b>		<b>321,500</b>	<b>378,306</b>	<b>439,022</b>	<b>504,029</b>	<b>504,029</b>	<b>2,146,886</b>

## ANNEX II – PROJECTED CASH FLOW

(all numbers in US\$)	Year 1	Year 2	Year 3	Year 4	Year 5
<b><u>CASH FLOW FROM OPERATING ACTIVITIES</u></b>					
Cash receipts from Sales	3,851,200	4,043,760	4,245,948	4,458,245	4,458,245
Cash paid to suppliers and employees	(3,326,120)	(3,425,904)	(3,528,928)	(3,635,055)	(3,635,055)
Cash generated from operations	525,080	617,856	717,020	823,190	823,190
Dividends received*	0	0	0	0	0
Interest received	0	0	0	0	0
Interest paid	0	0	0	0	0
Tax paid	(157,636)	(185,488)	(215,258)	(247,132)	(247,132)
<b>Net cash flow from operating activities</b>	<b>367,444</b>	<b>432,368</b>	<b>501,762</b>	<b>576,058</b>	<b>576,058</b>
<b><u>CASH FLOW FROM INVESTING ACTIVITIES</u></b>					
Replacement of equipment	0	0	0	0	0
Proceeds** from sale of equipment	0	0	0	0	0
<b>Net cash flow from investing activities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b><u>CASH FLOW FROM FINANCING ACTIVITIES</u></b>					
Proceeds from capital contributed	0	0	0	0	0
Proceeds from loan	0	0	0	0	0
Payment of loan	0	0	0	0	0
<b>Net cash flow from financing activities</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b><u>NET INCREASE/ DECREASE IN CASH</u></b>	<b>367,444</b>	<b>432,368</b>	<b>501,762</b>	<b>576,058</b>	<b>576,058</b>
Cash at the beginning of the period	321,500	378,306	439,022	504,029	504,029
Cash at the end of the period	<b>688,944</b>	<b>810,674</b>	<b>940,784</b>	<b>1,080,087</b>	<b>1,080,087</b>

### ANNEX III – PROJECTED BALANCE SHEET

(all numbers in US\$)	Year 1	Year 2	Year 3	Year 4	Year 5
<b>ASSET</b>					
Current asset	321,500	378,306	439,022	504,029	504,029
Fixed asset	1,340,000	1,366,800	1,394,136	1,422,019	1,450,459
Liquidity	525,080	617,856	717,020	823,190	823,190
<b>TOTAL ASSET</b>	<b>2,186,580</b>	<b>2,362,962</b>	<b>2,550,179</b>	<b>2,749,238</b>	<b>2,777,678</b>
<b>NET ASSET MINUS DEPRECIATION</b>	<b>2,140,635</b>	<b>2,308,900</b>	<b>2,487,439</b>	<b>2,677,209</b>	<b>2,705,649</b>
<b>EQUITY &amp; LIABILITIES</b>					
Equity	1,595,515	1,666,392	1,848,031	2,046,114	2,203,850
Reserves	0	0	0	0	0
<b>Total Own Equity</b>	<b>1,595,515</b>	<b>1,666,392</b>	<b>1,848,031</b>	<b>2,046,114</b>	<b>2,203,850</b>
Provisions	341,540	402,957	361,411	311,934	182,638
Long term loan	0	0	0	0	0
Short term Liabilities	203,580	239,551	277,998	319,161	319,161
<b>Total Equity &amp; Liabilities</b>	<b>2,140,635</b>	<b>2,308,900</b>	<b>2,487,439</b>	<b>2,677,209</b>	<b>2,705,649</b>
CL/CA	0.63	0.63	0.63	0.63	0.63
<b>DEBIT/CAPITAL RATIOS</b>	<b>0.25</b>	<b>0.28</b>	<b>0.26</b>	<b>0.24</b>	<b>0.19</b>
ROI	20.2	22.7	23.8	24.6	22.9
<b>BREAK EVEN POINT</b>	<b>2.55</b>	<b>2.21</b>	<b>1.94</b>	<b>1.73</b>	<b>1.76</b>
<b>BREAK EVEN RATIO</b>	<b>6.72</b>	<b>5.93</b>	<b>5.31</b>	<b>4.80</b>	<b>4.80</b>
<b>EQUITY/TOTAL LIABILITIES</b>	<b>75</b>	<b>72</b>	<b>74</b>	<b>76</b>	<b>81</b>

## ANNEX IV – TESTING PROJECT VIABILITY: IRR

(all numbers in US\$)

	Initial Investment	-1,550,000
Year 1	Additional Annual Net Profit	321,500
Year 2	Additional Annual Net Profit	378,306
Year 3	Additional Annual Net Profit	439,022
Year 4	Additional Annual Net Profit	504,029
Year 5	Additional Annual Net Profit	504,029
	IRR (in 5 years)	10.97%

The IRR above indicates that the expected return on the \$ 1,550,000 initial investment after 15years is 10.97%.

## ANNEX V – PAY BACK PERIOD

### Payback Period Analysis

	Year	Beginning Balance	Net Cash Flows	Ending Balance
Cost of investment	0.00	1,550,000.00	0.00	1,550,000.00
	1.00	1,550,000.00	321,499.92	1,228,500.08
	2.00	1,228,500.08	378,305.75	850,194.33
	3.00	850,194.33	439,022.44	411,171.89
	4.00	411,171.89	504,029.01	92,857.12
	5.00	92,857.12	504,029.01	596,886.12

<b>Payback Period =</b>	<b>4.00</b>	<b>Years</b>
-------------------------	-------------	--------------

## 8.0. CONCLUDING REMARKS AND WAY FORWARD

### 8.1. Evidence of project viability based on financial model and policy framework support

On the basis of all the analysis done on this Business Plan on all aspects of assessment on both SWOC Analysis, market analysis, risk analysis and the financial analysis, the proposed investment options in the gold processing plant as prescribed on this business plan have shown that the project is commercially

viable. Nonetheless, Northern Highlands Coffee Company Limited through professional consultative manner, will continue to find ways of implementing cost effective options given time and financial resources that will be made available. Financial analysis results show that when the construction of plant facility is financed using a combination of equity debt ratio (100:0), it gives an IRR of about 10.97 %.) which is technically interpreted that the project is financially viable. The payback period for the project is estimated at 4 years, which is within the range for this type of investment. Sensitivity analysis results also favor the project. Financial analysis for the project has shown feasible returns. Based on the investment scope and the assumptions taken in this Business Plan, the project will not face any difficulties during establishment, according to the projected cash flow be in a position to accomplish repayment of the loan and start generating profit.

## **8.2. Policy Framework Support**

The development of the Northern Highlands Coffee Company Limited is designed to take advantages of the current Tanzanian market-oriented reforms. The Project will be developed and established to accelerate the industrialization process. The vision 2025 emphasizes the importance of the allocation of public funds for strategic investments and private sector financing for development investments.

The 15 years Perspective Plan (2010-2015); Prioritize private investment in the context of Public Private Partnership. The First Five Years Development Plan (2011-2016) recognizes the fundamental role of the private sector in enabling the government to allocate its fund to strategic projects to facilitate a higher level of development. MKUKUTA II (2010-2015) identifies Public Private Partnership as a means of increasing the level of stakeholder participation and of easing the financial burden on the government. It should be noted that existing public resources are clearly insufficient to meet Tanzania's huge development needs. The increased use of private enterprises participation in development projects can help alleviate the financing gap. This approach is now applied by Northern Highlands Coffee Company Limited to ensure development of one among the ultra-modern plant in Mara Region. Private sector and investment have been recognized as the most significant potential source of additional funding required to facilitate development projects.

## **8.3. Conclusive Remarks and Way Forward**

The development of this processing plant will be funded by private finances. The company acting through its various shareholders and structures will provide the initial risk capital amounting to 1,550,000US\$ and the whole amount will be raised by promoters. The company will fund the development of the project minor rehabilitations of factory building, business offices, bulk storage facilities and purchasing machines as stated on this business plan. Before the Company engages into the development of this project as a private enterprise, it needs to accomplish the pre development activities to make way for the development of the designated project. The company has to accomplish the following;

### **a) Apply for TIC certificate**

The company by using this Business Plan and other required supporting documents should apply for the TIC Certificate at Tanzania investment centre or Mwanza Zonal Office. With this certificate, the company will be able to access tax reliefs which to a large extent will help to in reducing project costs, particularly in the purchasing of machineries and minor building of area of proposed industrial area.

### **b) Conduct Environmental Impact Assessment.**

The company has to engage a consultant to conduct EIA in order to ensure that environmental and possibly other sustainability aspects are considered effectively in policy, plan and project development. The

EIA Directive aims at introducing systematic assessment of the environmental effects of strategic land use related plans and programs. It typically applies to regional and local, development, waste and transport plans, within the country. EIA ensures that plans and programs take into consideration the environmental effects they cause.

**c) Minor rehabilitation to suit Industrial requirement**

The company should engage a firm to make minor rehabilitation of existing structure that will suit gold processing manufacturing requirements. The structure should include all vital service facilities described in this business plan. When possible, the process of design of the facility should be consultative inasmuch that it should allow and incorporate ideas from experienced professionals from the industry.

**d) Mobilizing Funds**

As previously discussed on the Financial Analysis of this business plan, financing mechanism for plant should be scrutinized well before commencing the project implementation. There may be several options of financing the project development but the company will find the best option. The investment team should do consultation with relevant financial institutions (Banks and non-bank Financial Institutions), both within and outside the country. This exercise should be more effective if the team works closely with central government agencies, particularly TIC and the Ministry of Industry & Trade and Ministry of Investment.