



**KEDA CERAMIC TANZANIA COMPANY LIMITED**

**GLASS FACTORY BUSINESS PLAN**

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**MKIU FLOAT GLASS AND GLASS PRODUCT PROJECT  
II  
[MFG & GPP]**

# **BUSINESS PLAN**

**FOR**

**MANUFACTURING OF FLOAT GLASS AND  
GLASS PRODUCTS II**

**FOR**

**KEDA CERAMICS TANZANIA COMPANY LIMITED**

**DECEMBER 2024**

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## EXECUTIVE SUMMARY OF THE PROJECT CONCEPT

S/n	Concept	Brief Details
1.	<b>PROJECT IDEA</b>	<p>Establishing of a strategic state of the art <b>manufacturing plant to manufacture float glass and glass products</b>. The project has been developed with manufacturing of glass products. The project is constructed according to international standards and will have additional logistics features such as;</p> <ul style="list-style-type: none"> <li>● One stop shop office in cooperation with the governmental authorities to facilitate all procedures (Legal &amp; Administrative)</li> <li>● Food court &amp; Shopping area for wholesale centers including supermarket and Bank facilities</li> <li>● Customs office, Logistic Center &amp; warehousing and Recycling Plant,</li> <li>● Service station &amp; Civil defense that include fire brigades and ambulances</li> <li>● Security &amp; Maintenance services for the factory and infrastructure (24 hours/7days a week), Medical treatment and Training center</li> <li>● Parking area, Green area, Playing area and Recreational area</li> </ul>
2.	<b>Project Location</b>	<ul style="list-style-type: none"> <li>● The project is located at plot number 9, 10 and 11; Mkiu Village, Mkuranga District, Coast Region. This land has been fully acquired from the land owner.</li> </ul>
3.	<b>Land size requirement</b>	<ul style="list-style-type: none"> <li>● The land which has been acquired for the project is 100 acres. The land is strategically in close proximity to the gas pipe transmission which shall be one of the mains sources of energy required for the glass production process.</li> </ul>
4.	<b>Investment Capital</b>	<ul style="list-style-type: none"> <li>● The estimated investment cost exceeds US\$51 million (fixed assets above US\$ 23 million).</li> </ul>
5.	<b>Development approach</b>	<ul style="list-style-type: none"> <li>● Mkiu Float Glass II Project, will develop, construct, market, manage and maintain the manufacturing plant and undertaking.</li> </ul>
6.	<b>Employment creation</b>	<ul style="list-style-type: none"> <li>● The company currently is in full operation and its generate around 500 direct employment opportunities and 300 indirect employment opportunities.</li> </ul>
7.	<b>Implementation Plan</b>	<ul style="list-style-type: none"> <li>● Two production lines, to continue with the next twenty year of glass products factory.</li> </ul>

## **1.0 INTRODUCTION**

### **1.1 Business Overview**

**Glass** is known for its fragility as well as firmness that makes it typical of a solid. At the same time, it can be qualified as a liquid, owing to its somewhat fluid nature, but scientifically, glass is what is called an amorphous solid a state between two states of matter. In terms of conductivity, glass has neither thermal nor electrical, since it has no reaction with the commonly known chemical compounds.

The demand for glass production is continually increasing mainly due to the fact there are few substitutes for glass production and those available aren't sufficient enough to shift people's interest to it. Another factor that has seen the growth of the glass production industry is the rise in Gross National Income.

### **1.2 Executive Summary**

KEDA Ceramics (Tanzania)Company Limited (Float Glass) is a company incorporated in Tanzania and granted Certificate of Incorporation as per the Companies Act. The company engaged in the business of manufacturing of glass production and they are interested in further expanding their business by establishing of manufacturing of glass production industry.

Having effectively studied this market, we are confident that our laid down strategies will enable us to be able to compete favorably with other companies in the glass area and even around the world. Asides glass production, we intend to offer other services that will give us an edge over our competitors and attract customers to us.

Our goal is to be number one brand in Tanzania as a whole. This we will do by not only offering the best services but also getting the best equipment.

KEDA Ceramic Tanzania Company Limited intends to set the pace for how manufacturing of glass production companies should be run. This we would do by constantly upgrading our machinery and providing continuous training to ensure that our staffs get updated on new technologies and innovations.

We intend to provide excellent customer service to all our customers so as to keep having repeat businesses with them. We would ensure that we listen closely to their complaints and resolve them in a timely manner. We would also listen to suggestions and tips that would move our business forward. We would also keep in touch with our customers and ensure that we keep them informed of new services and products from our stable.

### **1.3 Background and Necessity**

- i. Tanzania boasts an abundance of local mineral resources including several raw materials used in the production of glass which are readily available within Dar es salaam and Pwani region, and the available Natural Gas pipeline that is strategically located adjacent to the parcel of land acquired for the implementation of the project.

- ii. The project will import advanced equipment and technology to accelerate Tanzania Industrialization and lay the foundations for it.
- iii. Meeting demands for the expansion of markets in Tanzania, the local manufacture and sales will save transportation time and importation of goods to Tanzania. Raising the turnover efficiency of capital and inventory.
- iv. The great location of Tanzania will help expanding the markets to countries around, such as Zambia, Uganda, Congo DRC, Malawi, Mozambique, Rwanda and Burundi and all the neighboring countries thereby boosting trade and business relations between Tanzania and its neighbors in the east and central part of Africa, even south Africa.
- v. Currently, all glass used in and around Tanzania is wholly imported. The local production of glass industry will curb the trade deficit and contribute the foreign currency reserve of Tanzania.

#### **1.4 Steady investment environments in Tanzania**

Tanzania boasts not only of sustainable political stability and tranquility, but also and has strong ties with major investing and developed countries. Capital investment in Tanzania renders favorable conditions such as favorable policies, sufficient labor, abundant high-quality talents, stable production elements and cheap prices, etc. There will be entitlement to favorable import tariff for imported raw materials, equipment and parts and components for the plant established in the country.

#### **1.5 Compliance with the requirement for local economic development**

The Government of Tanzania has actively pushed forward open policy over the recent years, and encourages foreign investment dedicated to the development of national economy and improvement of people's living standards. Currently, the municipal construction, traffic construction and urban reconstruction have been commenced on a large scale. With the development of economic construction in Tanzania, demands for building materials including glass will be greater. Therefore, this project has a very good marketing prospect.

This project takes the production of high quality float glass and glass products as the target, with products adaptable to market requirements and with stronger market competence.

## 2.0 COMPANY PROFILE

### 2.1 Company structure

Keda Ceramic Tanzania Float Glass Factory was registered in Tanzania on the 1<sup>st</sup> Jan, 2025 whose shareholders are as follows;

S/N	NAME OF SHAREHOLDERS	Number of shares held
1	Brightstar Investment Limited	1%
2	Tilesmaster Investment Limited	99%

The principal business is mainly the manufacture, importation and exportation of float glass and related products. It is based and projected to take advantage of the development and expansion of real estate emerging markets in Africa.

### 2.2 Our Vision Statement

Our vision is to be the top manufacturing industry for glass production brand in the country.

### 2.3 Our Mission Statement

Our mission is to ensure that we do not lose sight of our vision. This we would do by getting the best machinery possible and ensuring we meet the needs of our existing as well as potential clients.

### 2.4 Our Business Structure

To have a strong structure on ground, we Keda Ceramic glass factory II, intend to ensure that we start on the right footing by getting the right employees to carry out the defined tasks that will make the company grow and make profit. We intend to invest in their welfare so that they could remain focused on growing the company.

We intend to partner with our distributors in such a way that we would both benefit from the relationship. Our distributors would be carefully selected for their wide reach, and other benefits to us. We would constantly make sure we work at perfecting the relationship and listen to their complaints and suggestions on the way forward for the company.

We also plan to offer other products and services at KEDA Ceramic Tanzania Float Glass Factory II and to this effect, we know we would need more hands to be able to ensure that the business grows and expand smoothly in achieving our business objectives. Listed below are those we believe will build Keda Float Glass endeavor to always adhere to the concept of mutual trust, excellent customer service and providing the right solution for the customer with quality products and services.

## 3.0 SWOT ANALYSIS

Having a SWOT analysis is very important as this would help us know what our chances of succeeding in this market are and how well we can improve on our

weakness while eliminating totally or reducing threats to the barest minimum. In carrying out a thorough SWOT analysis, we hired a reputable business consultant who has several years of experience in helping start-ups with carrying out this analysis.

The aim of the SWOT has also helped us determine if this is a business that we should pursue or not. We are glad to say our strengths and opportunities were in high percentages and that the threats posed to our business is few and our weaknesses will be worked on.

Here is what the SWOT analysis carried out by an expert on behalf of Keda Float Glass II revealed;

### **3.1 Strength:**

Our strength lies in our up-to-date technologies and machinery deployed to produce glass production. We also have the right and dedicated professionals that will handle these machines to ensure maximum output. Another strong suit of ours lies with our excellent customer service that is dedicated to ensuring that customers' complaints are promptly taken care of without excessive delays.

We also have a Chief Executive Office who does not only believe in having the right professionals in the right positions but also has a robust and vast experience in the field that would ensure that the Keda Float Glass II, does all the right things at the right time.

### **3.2 Weakness:**

The glass production market is not that already has company in the field in Tanzania. This has made it seem like the market is saturated as the entry requirements into this market are low. However, we intend not to allow this deter us as we have strategies in place to ensure we become a brand to be reckoned with

### **3.3 Opportunities:**

There is however several opportunities that abound in this field which stems from the fact that glasses are used often, which shows the market is there. Also, because of our approach to producing quality, we will help new business start-ups by giving them franchises that would elevate their business to great heights.

### **3.4 Threats:**

Every business is faced with threats, and so the threats that would face us in this area include having to compete against already imported glasses from different companies outside the country and also unfavorable government policies.

#### **4.0 MANAGEMENT**

Keda Float Glass II will be managed by a team of senior, experienced and professional staff comprising of both Tanzanians and expatriates. The managerial team and production team will be identified when all civil and construction works are completed and the production is set to commence.

#### **5.0 THE PROJECT – MANUFACTURING OF GLASS PRODUCTS**

##### **5.1 The Project Concept**

The idea of establishing a manufacturing enterprise/plant to manufacture construction materials is aimed towards readily providing quality and affordable building materials under one umbrella in the Tanzanian market. The company will develop, construct, market, manage and maintain the manufacturing establishment in Tanzania. The factory is constructed according to international standards and the project will be developed in phases and operated by Keda Float Glass II.

The project implementation will commence immediately by setting a factory with two production lines for the production of glass products to be followed by a factory for producing packaging materials, and other types of glass and glassware.

Keda Float Glass II, is stretching its company's projects and partnerships to form an integrated system of specialized industries and support for building materials and construction, taking advantage of clear urban and Real Estate expansion in Tanzania.

##### **5.2 Project Objectives**

- i. To reduce the country's trade deficit with exporter country and increasing foreign exchange expenditure by Tanzanian Business community when importing glass products from abroad. So far, majority of glass products imported by Tanzania, are manufactured in Asia and Europe. This objective will be realized through the establishment of glass manufacturing factory in Tanzania which will produce the similar product locally and sell the same products at a competitive price since logistics and transport cost will be reduced.
- ii. To stimulate investment for the mutual interest of Tanzania and its neighboring countries by enhancing bilateral trade and Economic cooperation between the countries.
- iii. To facilitate transit trade to neighboring and land locked countries that depend on Tanzania Ports for import of glass products from abroad.
- iv. To contribute to the reduction of counterfeit and low quality glass products being imported in Tanzania from abroad by dishonest traders because Keda Float Glass II, will produce glass products of high quality.

##### **5.3 Project Rationale**

The rationale is to establish and develop a Glass manufacturing enterprise located at Mkiu Village, Mkuranga District, Coast Region. The project is an import

substitution project which is expected to considerably reduce Tanzania's import of glass products.

The project will also benefit neighboring Kenya, Uganda, Rwanda, D.R.C, Zambia, Mozambique, and other surrounding countries who mainly import through Tanzania. Tanzania, being a member of the EAC sub-region also has a potential market access of 153 million people. Through the ongoing negotiations for EU-EAC Economic Partnership Agreement (EPA) and US- EAC Trade and Investment Partnership (TIP), we are optimistic of reaching out to a larger regional market.

In relation to the international gateway business approach, Tanzania can be regarded as an inland entry-port and logistics supply center for East Africa due to its widely acclaimed peace and security and safety of life and property.

Tanzania provides a conducive legal and regulatory framework, with incentives to motivate and attract the requisite investments needed to support Tanzania's industrialization process.

In conclusion, therefore, considering the benefits of improved business transactions, efficiency in regional intra trade and international trade, as well considering the economic development history and prevailing realities of trade; there is clear empirical evidence and of feasibility in establishing this project in Tanzania.

#### **5.4 Project benefits**

##### **5.4.1 Direct Benefits:**

- a) Injection of substantial foreign direct investments of more than \$ 50 million.
- b) Employment creation during the construction phase, as well as operation and maintenance. 494 direct new job opportunities for locals and 250 indirect job opportunities will be created from this project.
- c) Increased foreign exchange earnings made possible by reduction in the Tanzania's import bill on glass products and increased exports to other neighboring countries.
- d) Contribution to GDP growth through increased industrial economic activities.
- e) Technology transfer and acquisition of new skills by local people.

##### **5.4.2 Indirect Benefits:**

- i. Increased trading and economic activities in the community in the supply of local raw materials.
- ii. Trading opportunities for both retail and wholesale of glass products
- iii. Increased government revenue

- iv. Increased sales to the Utility Companies providing services of electricity, water and sewerage, telecommunications.
- v. Increased business transacted by local banks and institutions providing financial services.
- vi. Business opportunities for local contractors and sub-contractors during the construction and operation phase.
- vii. Business opportunities for local businesses contracted to supply fuel, foodstuffs and other goods consumed by the project, their employees and businesses.
- viii. Business opportunities for private provision of security services.

## 5.5 Sample Products



## 6.0 INVESTMENT COST - FINANCING PATTERN

The Total development cost is estimated at USD\$ 227,836,870 a summary of the breakdown is as indicated in the table below

Estimated Investment on Assets				Unit USD
Items	project/charges	Construction charges ('000USD)	Equipment charge	Subtotal
<b>1</b>	<b>Production line equipments investment</b>		<b>125,956.87</b>	<b>125,956.87</b>
<b>1.1</b>	<b>Production line facility charge</b>		<b>112,683.20</b>	<b>112,683.20</b>
1.1.1	Material Handling Equipment		35,280.00	35,280.00
1.1.2	Pressing Equipment Investment		20,720.00	20,720.00
1.1.3	Kiln Equipment Investment		27,888.00	27,888.00
1.1.4	Converting station equipment		7,515.20	7,515.20
1.1.5	Ancillary equipment		11,200.00	11,200.00
1.1.6	Utility equipment and Vehicle		10,080.00	10,080.00
<b>1.2</b>	<b>Installation and testing charge</b>		<b>10,360.00</b>	<b>10,360.00</b>
<b>1.3</b>	<b>Technical consultant and service</b>		<b>2,913.67</b>	<b>2,913.67</b>
<b>2</b>	<b>Construction and Utility Investment</b>	<b>55,522.88</b>	<b>36,597.12</b>	<b>92,120.00</b>
<b>2.1</b>	<b>Plant construction</b>	26,906.88	-	<b>26,906.88</b>
<b>2.2</b>	<b>Pre fabric building</b>	23,520.00	-	<b>23,520.00</b>
<b>2.3</b>	<b>Power pumping</b>	1,960.00	4,200.00	<b>6,160.00</b>
<b>2.4</b>	<b>Utility facility</b>	-	32,397.12	<b>32,397.12</b>
<b>2.5</b>	<b>Pre fabric building installation</b>	3,136.00	-	<b>3,136.00</b>
<b>3</b>	<b>Preparation charges</b>	-	1,993.60	<b>1,993.60</b>
<b>4</b>	<b>Transportation charges</b>	-	6,966.40	<b>6,966.40</b>
<b>5</b>	<b>Land fees</b>	<b>800.00</b>		<b>800.00</b>
<b>6</b>	<b>Sub Total of Construction Investment</b>	<b>56,322.88</b>	<b>171,513.99</b>	<b>227,836.87</b>
<b>7</b>	<b>Working capital</b>	<b>83,500.00</b>		<b>83,500.00</b>
	<b>Total</b>			<b>311,336.87</b>

From the above requirements, we would need an estimate of \$ **311,336,874** to successfully start and operate our glass production company in Tanzania. This amount can successfully cover our first six months of operations.

## **7.0 SALES AND MARKETING STRATEGY**

### **7.1 Sources of Income**

Keda Float Glass II, is being established with the purpose of generating revenue and invariably making profit in Tanzania. To ensure that we have a healthy bottom line, we intend to ensure that we have other sources of income for our business.

Keda Float Glass II, will generate income by selling the glass product; Since there are no close substitutes or alternatives for glass product, the sale of glass products had come to stay and is even regarded as an essential commodity.

At Keda Float Glass II, we are not only well positioned to take on the available market that exists in Tanzania, we are also quite confident that we will generate enough revenue in our first year of business to cover all operations and overheads, so much so that the business will begin to pay itself and then invariably grow and expand.

Our confidence stems from the fact that we have critically evaluated this industry especially the production and distribution line and our chances are strongly positive. The sales projection we have carried out is based on information that was gathered on the field and some of the assumptions are based on factors that are peculiar to start-ups in Tanzania.

Below are the sales projections for Keda Ceramic Tanzania Fload Glass II, which is based on where we are located as well as other factors that is intended for the growth of our business.

Total estimated income is \$219,000,000 per year during production period.

**N.B :** It should be noted that the sales projection above is based on the assumption that all favorable factors will remain constant and that there won't be any change. However, as time changes, there the projections might be lower or higher.

### **7.2 Marketing Strategy and Sales Strategy**

Every business man knows how important marketing is to a business and how deploying the right marketing strategies will help the companies generate income as well as boost its own profile as well. After a thorough research on what marketing strategies would be best for us to not only penetrate the market but also compete favorably with other leading brands as an upcoming company, we were able to come up with reliable data and information that will ensure our business is marketed effectively in Tanzania.

Also, knowing the importance of marketing to our business, our sales and

marketing executives have been empowered to deliver our corporate sales goals so as to shore up our revenue base while also positively promoting the company's image.

We also know how important technology is in these times especially when it comes to marketing and so we have perfected plans to develop an app that will bring us closer to our existing and potential clients. We would also make our social media platforms as active as possible for our audience.

We intend in summary to leverage on the following approaches to market our products and services at Keda Ceramic Tanzania Flood Glass II;

Advertise our tiles manufacturing company via local newspapers, national newspapers, and radio stations and on television.

- i. Encourage our loyal customers by giving out incentives for referrals
- ii. Engage in word-of-mouth marketing
- iii. Engage in direct marketing through our sales and marketing executives
  - iv. Ensure our business is listed in yellow pages and other local directories as well as online directories
  - v. Use our website to sell our products and services
  - vi. Make use of our social media platforms to actively promote and sell our products and services.

Regardless of the fact that our brand is a well-known one that has a high standard, we know how important creating awareness for a business is. Every business established for the purpose of making profit and competing favorably with other leading brands must have good publicity and advertising strategies laid out, and this we have in place.

Keda Ceramic Tanzania Flood Glass II, intends to explore all available means of publicity in Tanzania. Our publicity strategies will ensure that we not only promote our products and services but project our image positively to intending and existing clients.

## **8.0 INCENTIVES REQUIREMENTS FOR PROJECT / WISH LIST**

- 8.1** 100% exemption from payment of VAT and Import Duty on all imports of building materials, vehicles, machinery, equipment, tools for construction, production and products exports from Tanzania.
- 8.2** 100% exemption from payment of VAT on local purchase of building materials, vehicles, equipment, machinery and tools in Tanzanian market.
- 8.3** 100% exemption from payment of corporate tax on profits
- 8.4** Total exemption from payment of Paye (Pay as you earn) & SDL (Skills Development Levy).
- 8.5** Total exemption from payment of Capital Gains Tax & Stamp Duty.
- 8.6** Total exemption from payment of withholding taxes from dividends arising out of investments.

- 8.7** Reimbursement from payment of Excise Duty for investment-related activities upon request.
- 8.8** Relief from double taxation for foreign investors and employees where Tanzania has no double taxation agreement with the country of the investors or employees.
- 8.9** Investor is permitted to operate foreign currency accounts with banks in Tanzania.
- 8.10** There are no conditions or restrictions on: repatriation of dividends or net profit; payments for foreign loan servicing; payments of fees and charges for technology transfer agreements; payments of fees and charges for foreign factory and production line design, installation service, and foreign professional export of labor service; and remittance of proceeds from sale of any interest in Tanzania investment.
- 8.11** Investments are also guaranteed against nationalization and expropriation .
- 8.12** Gas supply and piping works: accelerate the follow-up of TPDC in regard to the piping work for our project, actively control the progress of pipeline connection for glass factory, and promise to complete the construction before operation; offer the most preferential unit price no higher than any other strategic investors, for the consumption of natural gas in this project.
- 8.13** Permission to additional immigration quota, without any charges thereof, for foreign technical expatriates for the project

\*Further details are provided in future.

## **9.0 LOCAL CONTENT**

### **9.1 Construction**

We are planning to subcontract our construction work to some reputable local contractors, to assist us in civil engineering construction, commencing the development of appropriate infrastructure particularly connecting the site with utilities services such as gas feeding station, roads, water, electric power, telecommunications and sewage.

Several other construction materials including sand, stones, steel pipes and rods, PVC pipes, cement, nails, wood etc will be sourced locally within Tanzania.

### **9.2 Equipment and Machinery Installation**

Hire professional and skillful local contractors to assist installation of the equipment and machinery on the site.

### **9.3 Local Raw Material Supply**

Agreement made with the local contractor for the purchase of raw material such as clay, limestone, kaolin, feldspar and talc etc.

### **9.4 Management**

A pool of qualified and experienced Tanzanian personnel will be employed to fill key executive and senior officer positions in the company. Specifically, Tanzanians will be engaged in the Marketing, Accounting, Legal, and Human resource administration of the company.

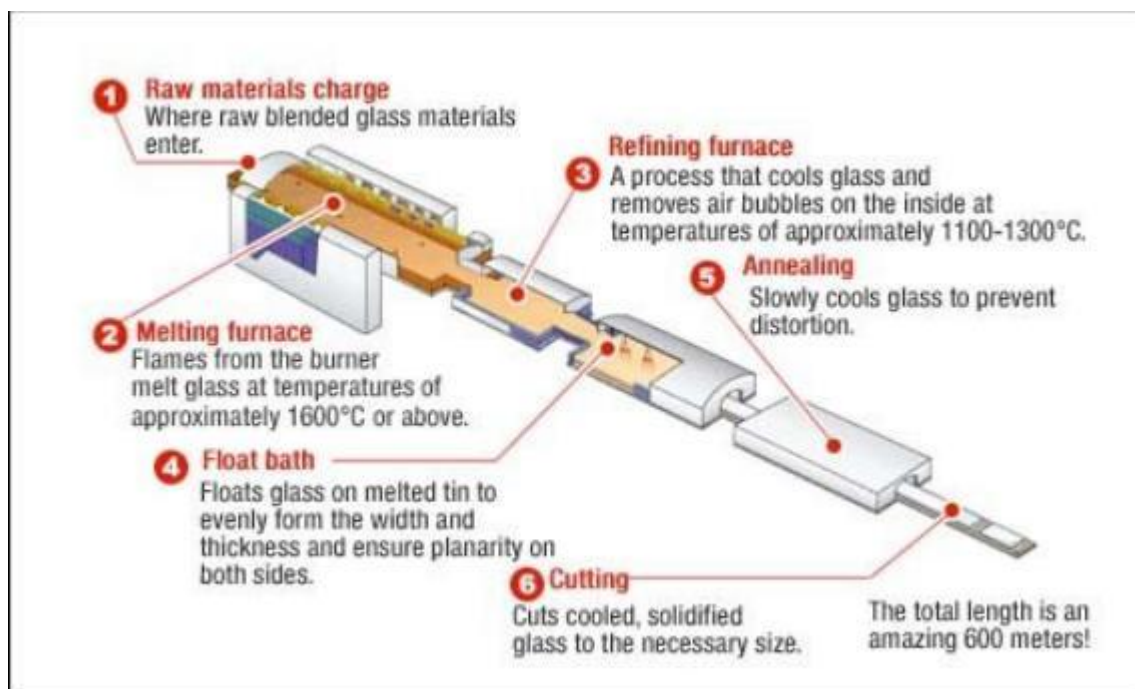
### **9.5 Corporate Social Responsibility**

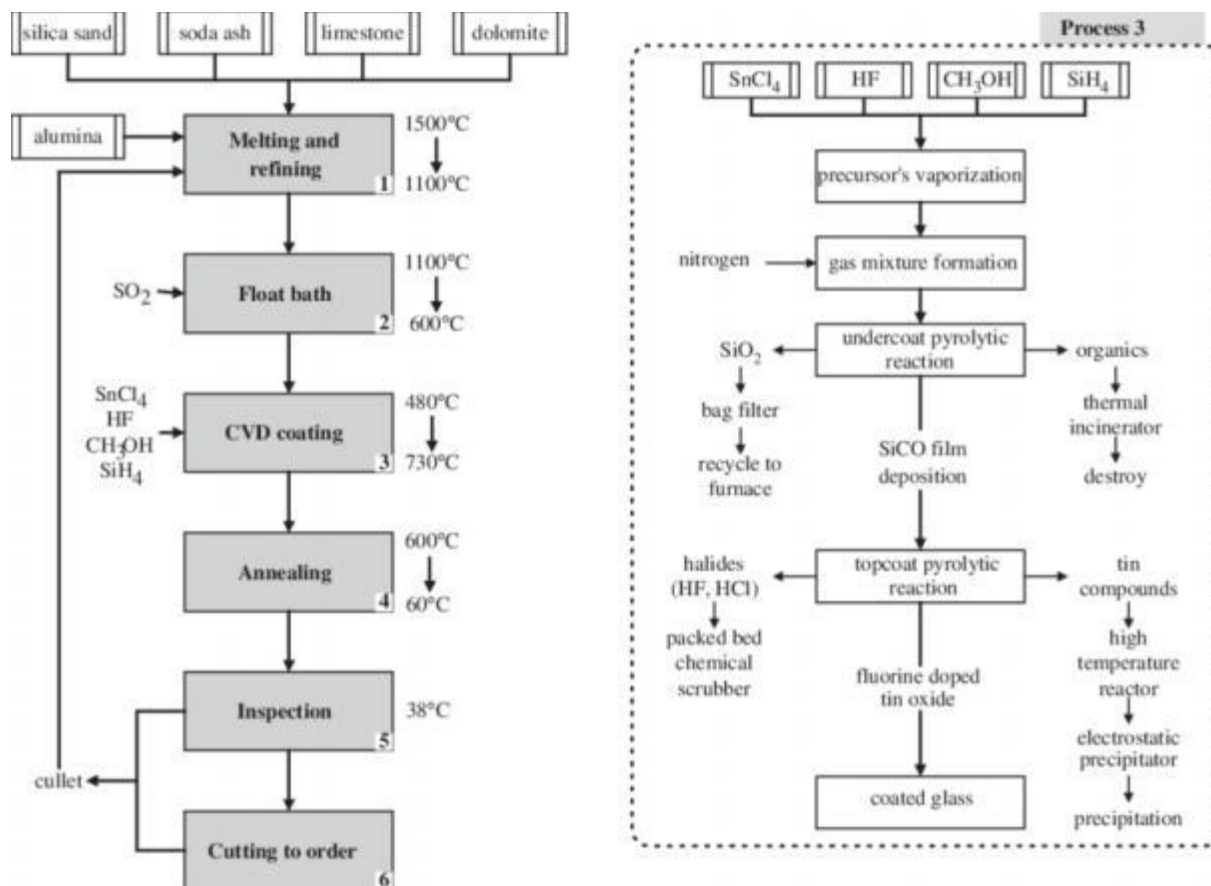
We will commit ourselves to creating and maintaining a sound environment for sustainable development by taking an active part in recycling, waste management, water management, renewable energy, reusable materials, 'greener' supply chains, reducing paper use and adopting Leadership in Energy and Environmental Design (LEED) building standards.

In addition, we will take the initiative in community involvement, which might include raising money for local charities, sponsoring local events, employing local workers, supporting local economic growth, engaging in fair trade practices, etc.

## 10.0 PRODUCTION PROCESS, TECHNOLOGY AND QUALITY ASSURANCE.

### Production chart(showing flow of production)





### 10.1 STAGE 1- Melting & Refining:

Fine grained ingredients closely controlled for quality, are mixed to make a batch, which flows into the furnace, which is heated up to 1500 degree Celsius. This temperature is the melting point of glass.

The raw materials that float glass is made up of are :

- SiO<sub>2</sub> – Silica Sand
- Na<sub>2</sub>O – Sodium Oxide from Soda Ash
- MgO – Dolomite
- Al<sub>2</sub>O<sub>3</sub> – Feldspar

The above raw materials primarily mixed in batch helps to make clear glass. If certain metal oxides are mixed to this batch they impart colors to the glass giving it a body tint.

For e.g.

- NiO & CoO – to give grey tinted glasses (Oxides of Nickel & Cobalt)
- SeO – to give Bronze tinted glasses (oxide of Selenium)
- Fe<sub>2</sub>O<sub>3</sub> – To give Green tinted glasses (oxides of iron which at times is also present as impurity in Silica Sand)
- CoO – To give blue tinted glass (oxides of Cobalt)

Apart from the above basic raw material, broken glass aka cullet, is added to the mixture to the tune of nearly 25% ~ 30% which acts primarily as flux. The flux in a batch helps in reducing the melting point of the batch thus reducing the energy consumed to carry out the process.

#### **10.2 Stage 2 – Float Bath:**

Glass from the furnace gently flows over the refractory spout on to the mirror-like surface of molten tin, starting at 1100 deg Celsius and leaving the float bath as solid ribbon at 600 deg Celsius.

#### **10.3 Stage 3 – Coating (for making reflective glasses):**

Coatings that make profound changes in optical properties can be applied by advanced high temperature technology to the cooling ribbon of glass. Online Chemical Vapour Deposition (CVD) is the most significant advance in the float process since it was invented. CVD can be used to lay down a variety of coatings, a few microns thick, for reflect visible and infra-red radiance for instance. Multiple coatings can be deposited in the few seconds available as the glass flows beneath the cotter (e.g. Sunergy)

#### **10.4 Stage 4 – Annealing:**

Despite the tranquillizer with which the glass is formed, considerable stresses are developed in the ribbon as the glass cools. The glass is made to move through the annealing lecher where such internal stresses are removed, as the glass is cooled gradually, to make the glass more prone to cutting.

#### **10.5 Stage 5 – Inspection:**

To ensure the highest quality, glass manufacturers carry out inspection at every stage. Occasionally a bubble that is not removed during refining, a sand grain that refuses to melt or a tremor in the tin puts ripples in the glass ribbon. Automated online inspection does two things. It reveals process faults upstream that can be corrected. And it enables computers downstream to steer round the flaws. Inspection technology now allows 100 million inspections per second to be made across the ribbon, locating flaws the unaided eye would be unable to see.

#### **10.6 Stage 6 – Cutting to Order:**

The entire process of glass making is finally complete when diamond steels trim off seldge – stressed edges- and cut ribbon to size dictated by the computer. Glass is finally sold only in square meters.

## **10.7 Stage 7- Future Processing**

Manufacture toughened glass, wired glass and other glass products.

## **11.0 UTILITY REQUIREMENTS**

### **Power Supply**

Electricity demand is 10MW which produced by Natural Gas generator

### **Water Supply**

Water consumption of two production lines is 1000 tons per day.

### **Gas Supply**

Natural gas demand of two production lines for the company is 10,000 MMBtu/day. We will require it in two phases, starting with up to 5,000 MMBtu/day from 1<sup>st</sup> January 2025; and, in the second phase a quantity of natural gas of up to 5,000 MMBtu/day from 1<sup>st</sup> January 2025 according to our plan. Hence, making a total increase in the supply of natural gas request of up to 10,000 MMBtu in about the next 2 years.

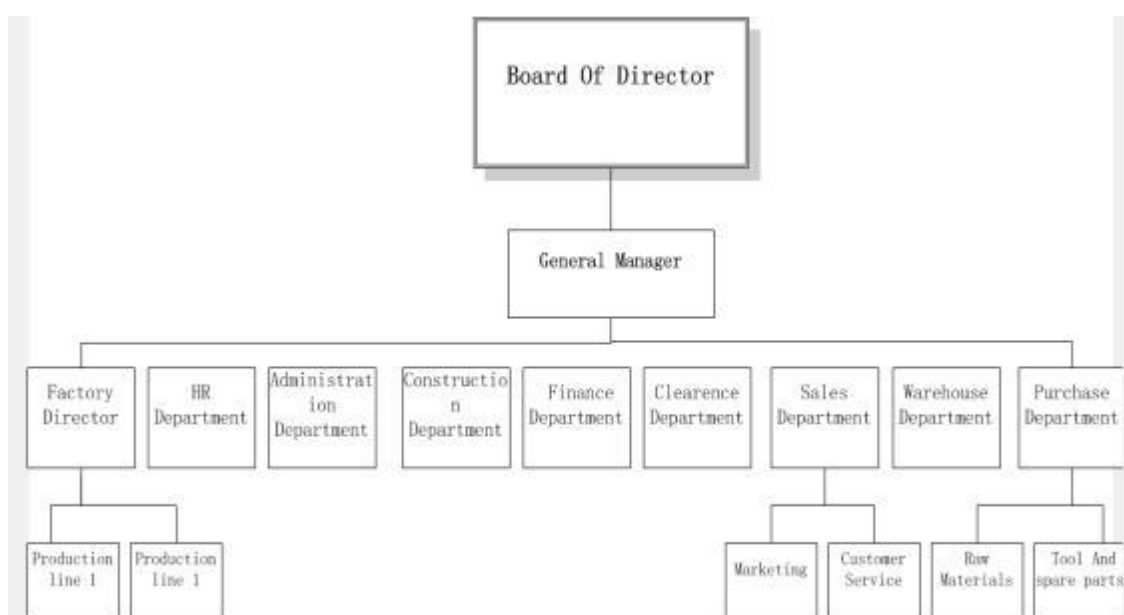
## **12.0 ENVIRONMENTAL PROTECTION**

There might be some pollution as glass production industry is belong to high energy consuming industries. We will implement cleaner production strategy, use rain sewage diversion system, re-treat and re-utilize waste water, minimize the material consumption and waste amount, on the other hand, strengthen terminal control, perfect the pollution control measures, so that all kinds of waste can meet the standard of discharge and bring no bad affect to the surrounding environment.

We have submitted our application to the National Environment Management Council of Tanzania for Environmental Impact Assessment Certificate.

### 13.0 SKILLS AND LABOR REQUIREMENT

No.	Job	Head count
1	Management and technical	200
2	Sales	55
3	Production line	1400
<b>Total</b>		<b>1655</b>



### 14.0 FINANCIAL PROJECTION.

Please find attachments below.

### 15.0 CONCLUSION AND SUMMARY OF THE BUSINESS PLAN

To conclude, foreign investors and Tanzania have had great trade and investment as well as economic relationships over the years.

Keda Ceramic Float Glass Factory II, the company's contribution will be through building a world class factory to manufacture for the booming construction industry in Tanzania.

We are really pleased to be part of making Tanzania a real industrial economy in line with the industrialization policy of the Ministry of Trade and Industry. Also, we are happy to create job opportunities for many

Tanzanians and to train them in various new technological plant, machinery and equipment.

It is our hope that the Tanzania Investment Centre will offer us the necessary support in facilitating the grant of incentives required for the implementation of projects of this nature.

The entire board and management of the Keda Ceramic Float Glass Factory II, are poised to make an impact in Tanzania by reducing the import of glass as well as other construction materials in the future in order to save the country's foreign exchange and also bring in some foreign exchange through export of the products to neighboring countries

ATTACHMENT:

		Balance sheet										Unit: '000 USD	
Items	Description	Construction Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase
	Year	1-2years	1	2	3	4	5	6	7	8	9	10	
<b>1</b>	<b>Assets</b>	<b>235,356.87</b>	<b>288,099.14</b>	<b>257,131.57</b>	<b>220,840.70</b>	<b>191,223.03</b>	<b>162,351.56</b>	<b>150,579.65</b>	<b>138,947.65</b>	<b>127,315.65</b>	<b>144,184.59</b>	<b>161,053.53</b>	
1.1	Total Current Assets	7,520.00	80,695.59	66,829.96	47,641.03	35,125.31	23,355.78	28,685.82	34,155.77	39,625.72	73,596.60	107,567.49	
1.1.1	Cash and cash equivalent	7,520.00	71,771.09	57,762.96	44,501.03	31,985.31	20,215.78	25,545.82	31,015.77	36,485.72	70,456.60	104,427.49	
1.1.2	Account Receivable	-	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	
1.1.3	Account Prepayable		5,784.50	5,927.00									
1.1.4	Inventory	-	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	
1.2	Construction in- progress	3,331.37	-	-	-	-	-	-	-	-	-	-	
1.3	Net value of Fixed asset	223,705.50	206,603.56	189,501.61	172,399.66	155,297.72	138,195.77	121,093.83	103,991.88	86,889.93	69,787.99	52,686.04	
1.4	Net value of Intangible assets and others	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	
<b>2</b>	<b>Liability and Equity</b>	<b>235,356.87</b>	<b>288,099.14</b>	<b>257,131.57</b>	<b>220,840.70</b>	<b>191,223.03</b>	<b>162,351.56</b>	<b>150,579.65</b>	<b>138,947.65</b>	<b>127,315.66</b>	<b>144,184.60</b>	<b>161,053.54</b>	
2.1	Current liability	231,856.87	199,706.56	171,105.63	143,624.98	115,254.63	86,884.30	62,890.65	38,617.16	10,273.73	10,431.23	10,588.73	
2.1.1	short-term loan	3,849.37	200.00	100.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	
2.1.2	Account Payable	228,007.50	199,506.56	171,005.63	143,424.98	114,056.74	85,563.20	57,070.80	28,571.56	70.63	70.63	70.63	
2.1.3	Account Preceivable					997.89	1,121.10	5,619.85	9,845.60	10,003.10	10,160.60	10,318.10	
2.2	construction loan						-	-	-	-	-	-	
2.3	Floating capital loan	2,000.00	72,000.00	56,000.00	40,000.00	24,000.00	8,000.00	4,000.00	-	-	-	-	
2.4	subtotal of liability	233,856.87	271,706.56	227,105.63	183,624.98	139,254.63	94,884.30	66,890.65	38,617.16	10,273.73	10,431.23	10,588.73	
2.5	Equity and Reserves	1,500.00	16,392.58	30,025.94	37,215.73	51,968.39	67,467.26	83,689.01	100,330.49	117,041.93	133,753.37	150,464.81	
2.5.1	Reserves	-	-	-	-	-	-	-	-	-	-	-	
2.5.2	Capital	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	1,500.00	
2.5.3	Retained Earnings	-	14,892.58	28,525.94	35,715.73	50,468.39	65,967.26	82,189.01	98,830.49	115,541.93	132,253.37	148,964.81	

Cash flow												Unit : '000 USD	
Items	Description	Construction Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	
	Year	1	1	2	3	4	5	6	7	8	9	10	
<b>1</b>	<b>Cash flows from operating activities</b>	-	<b>31,750.40</b>	<b>35,290.06</b>	<b>34,970.26</b>	<b>34,650.46</b>	<b>34,330.66</b>	<b>34,030.85</b>	<b>33,970.89</b>	<b>33,970.89</b>	<b>33,970.89</b>	<b>33,970.89</b>	
1.1	cash inflow subtotal	-	255,420.00	258,420.00	258,420.00	258,420.00	258,420.00	258,420.00	258,420.00	258,420.00	258,420.00	258,420.00	
1.1.1	cash from sales	-	216,000.00	219,000.00	219,000.00	219,000.00	219,000.00	219,000.00	219,000.00	219,000.00	219,000.00	219,000.00	
1.1.2	VAT-output	-	39,420.00	39,420.00	39,420.00	39,420.00	39,420.00	39,420.00	39,420.00	39,420.00	39,420.00	39,420.00	
1.2	Cash outflow subtotal	-	223,669.60	223,129.94	223,449.74	223,769.54	224,089.34	224,389.15	224,449.11	224,449.11	224,449.11	224,449.11	
1.2.1	Cash outflow on operating	-	177,727.07	177,727.07	177,727.07	177,727.07	177,727.07	177,727.07	177,727.07	177,727.07	177,727.07	177,727.07	
1.2.2	VAT-input	-	29,691.55	29,691.55	29,691.55	29,691.55	29,691.55	29,691.55	29,691.55	29,691.55	29,691.55	29,691.55	
	Cash paid for raw materials		140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	140.00	
1.2.3	VAT tax paid	-	9,728.45	9,728.45	9,728.45	9,728.45	9,728.45	9,728.45	9,728.45	9,728.45	9,728.45	9,728.45	
1.2.4	Corporate tax paid	-	6,382.53	5,842.87	6,162.67	6,482.47	6,802.27	7,102.08	7,162.05	7,162.05	7,162.05	7,162.05	
<b>2</b>	<b>Cash flows from investment activities</b>	<b>-1,500.00</b>	-	-	-	-	-	-	-	-	-	-	
2.1	cash inflow subtotal												
2.2	Cash outflow subtotal	1,500.00	-										
2.2.1	Cash paid on construction		-										
2.2.2	Cash paid on Land	1,500.00	-										
2.2.3	Interests on construction												
<b>3</b>	<b>Cash flows from financing activities</b>	<b>-3,500.00</b>	<b>-32,500.69</b>	<b>-49,298.19</b>	<b>-48,232.19</b>	<b>-47,166.19</b>	<b>-46,100.19</b>	<b>-28,700.81</b>	<b>-28,500.94</b>	<b>-28,500.94</b>	-	-	
3.1	cash inflow subtotal	3,500.00	80,000.00										
3.1.1	capital	1,500.00	-										
3.1.2	construction loan												
3.1.3	Floating capital loan	2,000.00	80,000.00										
3.1.4	Reserves												
3.2	Cash outflow subtotal	-	47,499.31	49,298.19	48,232.19	47,166.19	46,100.19	28,700.81	28,500.94	28,500.94	-	-	
3.2.1	interests payment		2,598.38	4,397.25	3,331.25	2,265.25	1,199.25	199.88	-	-	-	-	
3.2.2	Cash paid for loan+dividend	-	44,900.94	44,900.94	44,900.94	44,900.94	44,900.94	28,500.94	28,500.94	28,500.94	-	-	
<b>3</b>	<b>cash and cash equivalents</b>	<b>2,000.00</b>	<b>64,251.09</b>	<b>-14,008.13</b>	<b>-13,261.93</b>	<b>-12,515.73</b>	<b>-11,769.53</b>	<b>5,330.04</b>	<b>5,469.95</b>	<b>5,469.95</b>	<b>33,970.89</b>	<b>33,970.89</b>	
<b>4</b>	<b>Accumulated Cash and cash equivalents</b>	<b>2,000.00</b>	<b>66,251.09</b>	<b>52,242.96</b>	<b>38,981.03</b>	<b>26,465.31</b>	<b>14,695.78</b>	<b>20,025.82</b>	<b>25,495.77</b>	<b>30,965.72</b>	<b>64,936.60</b>	<b>98,907.49</b>	
<b>5</b>	<b>Opening balance</b>	<b>5,520.00</b>	<b>7,520.00</b>	<b>71,771.09</b>	<b>57,762.96</b>	<b>44,501.03</b>	<b>31,985.31</b>	<b>20,215.78</b>	<b>25,545.82</b>	<b>31,015.77</b>	<b>36,485.72</b>	<b>70,456.60</b>	
<b>6</b>	<b>Closing balance</b>	<b>7,520.00</b>	<b>71,771.09</b>	<b>57,762.96</b>	<b>44,501.03</b>	<b>31,985.31</b>	<b>20,215.78</b>	<b>25,545.82</b>	<b>31,015.77</b>	<b>36,485.72</b>	<b>70,456.60</b>	<b>104,427.49</b>	



				Depreciation of fixed assets										Unit : '000 USD	
Item	Description	Value	Depreciation rate(Residual value rate 10%)	Constricti on phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	Production Phase	
1															
1.1	Plant														
	Value	55,522.88	3.000%	55,522.88	55,522.88	55,522.88	55,522.88	55,522.88	55,522.88	55,522.88	55,522.88	55,522.88	55,522.88	55,522.88	
	Depreciation cost	16,656.86		3,331.37	1,665.69	1,665.69	1,665.69	1,665.69	1,665.69	1,665.69	1,665.69	1,665.69	1,665.69	1,665.69	
	Net value	38,866.02		52,191.51	50,525.82	48,860.13	47,194.45	45,528.76	43,863.08	42,197.39	40,531.70	38,866.02	37,200.33	35,534.64	
1.2	Equipment														
	Value	171,513.99	9.00%	171,513.99	171,513.99	171,513.99	171,513.99	171,513.99	171,513.99	171,513.99	171,513.99	171,513.99	171,513.99	171,513.99	
	Depreciation cost	154,362.59			15,436.26	15,436.26	15,436.26	15,436.26	15,436.26	15,436.26	15,436.26	15,436.26	15,436.26	15,436.26	
	Net value	17,151.40		171,513.99	156,077.73	140,641.48	125,205.22	109,768.96	94,332.70	78,896.44	63,460.18	48,023.92	32,587.66	17,151.40	
1.3	Land cost														
	Value	800.00	0.000%	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	
	Depreciation cost	-			-	-	-	-	-	-	-	-	-	-	
	Net value	800.00		800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	800.00	
<b>2</b>	<b>total</b>														
	Value	227,836.87			227,836.87	227,836.87	227,836.87	227,836.87	227,836.87	227,836.87	227,836.87	227,836.87	227,836.87	227,836.87	
	Depreciation cost	171,019.46			17,101.95	17,101.95	17,101.95	17,101.95	17,101.95	17,101.95	17,101.95	17,101.95	17,101.95	17,101.95	
	Net value	56,817.42			210,734.93	193,632.98	176,531.04	159,429.09	142,327.14	125,225.20	108,123.25	91,021.31	73,919.36	56,817.42	



		Third Year		Fourth Year				Fifth Year			
		36,000.00	32,000.00	28,000.00	24,000.00	20,000.00	16,000.00	12,000.00	8,000.00	4,000.00	0.00
		650.00	585.00	520.00	455.00	390.00	325.00	260.00	195.00	130.00	65.00
		4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
		4,650.00	4,585.00	4,520.00	4,455.00	4,390.00	4,325.00	4,260.00	4,195.00	4,130.00	4,065.00
<b>Long-term account payable for supplier(10 years)</b>											
<b>228,007.50</b>	<b>USD</b>										
Payment year	2023/6/30	2024/6/30	2025/6/30	2026/6/30	2027/6/30	2028/6/30	2029/6/30	2030/6/30	2031/6/30	2032/6/30	
Payment amount	0.00	0.00	28,500.94	28,500.94	28,500.94	28,500.94	28,500.94	28,500.94	28,500.94	28,500.94	
Payment Balance	228,007.50	228,007.50	199,506.56	171,005.63	142,504.69	114,003.75	85,502.81	57,001.88	28,500.94	0.00	

Interest of loan							
Over five-year loan interest rate:		6.50%			Unit: '000 USD		
Calculation of loan Interests							
rate for the loan of more than 5 years:				7%		Unit:'000 USD	
Periods		Q1	Q2	Q3	Q4	Total	
<b>Construction period</b>		<b>Bank Loan</b>				2,000.00	
	2022					- .00	
	2023					- .00	
	2024			32.50	30.88	63.38	
	2025	29.25	27.63	26.00	24.38	107.25	
	2026	22.75	21.13	19.50	17.88	81.25	
	2027	16.25	14.63	13.00	11.38	55.25	
	2028	9.75	8.13	6.50	4.88	29.25	
	2029	3.25	1.63			4.88	
<b>Total Interests</b>						341.25	
<b>Production period</b>		<b>Bank Loan</b>				80,000.00	
2	2024			1,300	1,235	2,535.00	
3	2025	1,170	1,105	1,040	975	4,290.00	
4	2026	910	845	780	715	3,250.00	
5	2027	650	585	520	455	2,210.00	
6	2028	390.00	325.00	260.00	195.00	1,170.00	
7	2029	130.00	65.00			195.00	
<b>Total Interests</b>						13,650.00	
Construction phase							
Item	1	1	2	3	4	5	6
Interests	-	2,598	4,397	3,331	2,265	1,199	200