

# **SHENG DA PLASTIC INVESTMENT LIMITED**

## **PROPOSED BUSINESS PLAN**

### **FOR**

## **THE ESTABLISHMENT OF POLYBAGS INDUSTRY IN ILALA DISTRICT, DAR ES SALAAM REGION , TANZANIA.**

**Prepared by:**  
SHENG DA PLASTIC INVESTMENT LIMITED,  
Buguruni,,  
Postal code 12102, Matumbi,  
Ilala district,  
Dar Es Salaam  
2023

February,

## Table of content

<b>List of Abbreviations</b> .....	4
<b>EXECUTIVE SUMMARY</b> .....	5
<b>1.0. OVERVIEW TO POLYPROPYLENE (PP) BAGS INDUSTRY IN TANZANIA.</b> .....	6
1.1. PP Nonwoven Fabrics Industry in Tanzania. ....	6
1.2. Polypropylene bags Value Chain in Tanzania.....	6
1.3. PP Bags fabric Processing Capacity.....	7
1.4. Demand of PP Nonwoven bags in Tanzania .....	8
<b>2.0. PROJECT OVERVIEW</b> .....	10
2.1 The Industry.....	10
2.2. Project Description.....	10
2.3. Project Cost & Financing Pattern .....	11
2.4. Business Plan Objectives .....	11
2.5. Product: Demand and Market Analysis.....	12
2.5.1. PP Nonwoven bags Products.....	12
2.5.2. Market potential for the PP non-woven bags: .....	12
2.5.3. Marketing Organization .....	13
2.5.4. Pricing strategy .....	13
2.6. Technical Characteristic of the project.....	13
2.6.1. Project Location .....	13
2.6.2. Project Site analysis .....	13
2.6.3. Buildings and related fixed cost .....	14
2.6.4. Machinery and Equipment .....	14
2.6.5. Motor Vehicles.....	14
2.6.6. Furniture & Fittings and computers .....	15
2.6.7. Pre-Operational Expenses .....	15
2.6.8. Initial Working Capital .....	15
2.6.9. Project Capital Investment Summary.....	15
2.6.10. Project Financing .....	16
2.6.11. Project Implementation .....	16
2.6.12. Explanatory Notes.....	16
2.6.13. Production flow description .....	16
2.6.14. Auxiliary Materials/ services .....	18
2.6.15. Warehousing and distribution .....	19
2.6.16. Waste management for industry.....	19
3.1. Employment .....	21
3.2. Recruitment.....	21
3.3. Training and the use of consultants.....	21
3.4. Organization and Management .....	21
<b>4.0. FINANCIAL ANALYSIS</b> .....	23
4.1. Production, Revenue and project viability .....	23
4.2. Capacity Utilization .....	23
<b>5.0. RISK ANALYSIS</b> .....	24
5.1. Risk Analysis .....	24
5.2. Macroeconomic risk analysis .....	24
5.3. Finance risk analysis .....	24
5.4. Other potential external risk.....	25
5.4. Mitigating potential risk.....	25
<b>6.1. Impact Investment Index Framework</b> .....	26
<b>7.0. FINANCIAL MODELLING AND ANALYSIS</b> .....	28
7.1. Project investment inputs .....	28
7.2. Objective and Scope of Financial Model .....	28
7.2.1. Objective .....	28
7.2.2. Scope.....	29
<b>ANNEX I – INCOME STATEMENT</b> .....	30

<b>ANNEX II – BALANCE SHEET</b> .....	32
<b>ANNEX III= LOAN PAYMENT SCHEDULE</b> .....	33
<b>ANNEX IV – IRR</b> .....	33
<b>ANNEX V – PAYBACK PERIOD</b> .....	34
<b>8.0. CONCLUDING REMARKS AND WAY FORWARD</b> .....	35
8.1. Evidence of project viability based on financial model and policy framework support .....	35
8.2. Policy Framework Support .....	35
8.3. Conclusive Remarks and Way Forward .....	36

## **List of Abbreviations**

AGOA – African Growth Opportunity for Act  
CAPEX – Capital Expenditure  
DAUWASA – Dar Es Salaam Urban Water Supply Authority  
EIA – Environment Impact Assessment  
EU – European Union  
GDP – Growth Domestic Products  
IRR – Internal rate of return  
Kg – kilo gram  
MIS - Management Information System  
MT – Metric Ton  
MW – Mega Watts  
NBS – National Bureau of standard  
NEMC – national Environment Management Council  
NW - Non - woven  
OPEX – Operating Expenditure  
PMAT - Plastic Bag Manufacturing Association of Tanzania  
SIDO- Small Development Organization  
TANESCO – Tanzania Electric Supply Company  
TIC- Tanzania Investment Centre  
TZS – Tanzania Shilling  
UK – United Kingdom  
US\$ - United State Dollar  
USA - United states of America  
VAT – Value Added tax  
VETA - Vocation Education Training Authority

## **EXECUTIVE SUMMARY**

Tanzania's ongoing regime has strictly insisted on promoting industrialization across all major fields in economy. Local entrepreneurs stand to leverage that national aspiration and national packaging market over space and time. Local entrepreneurs can levitate the huge gap that exists in raw material supply for producing these bags.

Dar Es Salaam region through the Sheng Da Plastic Investment Limited aimed to establish its own factory purchasing machines for manufacture of PP Nonwoven fabrics in Tanzania, the company registered in Tanzania with certificate of incorporation number 162357417 dated 03<sup>rd</sup> January, 2023. The office of the company is located at Matumbi nearby Mandela Road, Buguruni ward, Ilala district, in Dar es Salaam region, Tanzania. The initial Authorized Share Capital of the company is TZS 100,000,000/= divided into 10,000 ordinary shares of TZS 10,000 each and the company have the power to divide the original or any increased capital into several classes.

Sheng Da Plastic Investment Limited aimed at expanding production line by importing Machine and equipments, the company will produce PP nonwoven fabrics bags; the project is expected to start by early March, 2023 whereas raw materials will be imported and others will be collected from local producer as a recycled material. The plant capacity is per double shift of 8hours per machines is 1, 1,760M squires equivalent to 158.4 KG per day. For 12 machines the plant capacity in production is 21,1200M Squire per day equivalent to 1,901KG. Annual production of 12 machines 570.244MT.

The proposed integrated project is estimated to cost a total of US\$ 1,537,192 this including, own equity of US\$ 1,229,754 as proceeds from capital contribution of the project, total loan debt of 307,438US\$ with 8% interest rate. The Current asset of US\$ 290,061 fixed assets 1,437,192US\$ and total liabilities of 2,272,750US\$. The project will be implemented within 5 years

The objectives of business plan, is to determine the viability of the proposed project and serve as a business plan for the company's development program. Secondly, 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 development of a large and complex project such as Sheng Da Plastic Investment 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.

The project is also likely to have a positive impact on the economy of Coastal 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 specially to neighboring countries in Eastern and central African countries.

## **1.0. OVERVIEW TO POLYPROPYLENE (PP) BAGS INDUSTRY IN TANZANIA.**

### **1.1. PP Nonwoven Fabrics Industry in Tanzania.**

Tanzania's ongoing regime has strictly insisted on promoting industrialization across all major fields in economy. Local entrepreneurs stand to leverage that national aspiration and national packaging market over space and time. Local entrepreneurs can levitate the huge gap that exists in raw material supply for producing these bags. Lucrative leeway can be draw for the letter, whereby, local producers can dominate a profitable customer bag for bags supply, while raw material manufacturer can increase revenue and expand their operation across regions.

Tanzania packaging market is game, as cheaper and durable packaging solution are yet to surface within communities' reach Local, entrepreneurs' artisans and recyclers stand to generate millions in revenue, through marking renewable bags the PP bags manufactured in Tanzania promote the possibility that channeling financial and technical resource into small and medium sized renewable bag factories might be the right move. According to PMAT report, there are 35 PP woven bags industries, producing only 18% of bags circulated national wide, while almost 70% of bags were imported, which were also in substandard condition contributing to adverse environmental impacts.

Tanzania has a vast array of raw materials for making renewable bags, natural fiber and woven material at her disposal. From business perspective, it is possible for durable, cheaper and attractive bags to be made. Under the right business models, local entrepreneur stands a chance to diversify their local economies.

*The Sheng Da Plastic Investment Limited* tap the opportunity and expect to establish PP bags factory and develop sustainable high capacity by importing set of processing polybags machines after being established in early 2023. The company has professional expert in PP Nonwoven Fabrics Industry and will be among the list of top suppliers of in Tanzania. The company will be located Dar Es Salaam, and will be among the largest polybags processing factory in selling poly bags products in different shape, size according to the demand of the market inside and outside of Tanzania. Sheng Da Plastic Investment Limited is listed in Trade Chinese's list of verified sellers offering supreme quality of bags to different users from rural to urban consumers.

The company intends to establish its production process by importing set of poly bags making machines that will produce different types of poly bags, these water & moisture proof PP woven sacks are ideal for packing of rice, sugar, flour, spices, fertilizers and other materials. The company offers them in bulk quantities and at reasonable prices.

### **1.2. Polypropylene bags Value Chain in Tanzania**

Polypropylene (Pp) Bags is a fabric like material made from long fibers, bonded together by thermo mechanical process. The term is used in the textile manufacturing industry to denote fabrics, such as felt, which are neither woven nor knitted. PP bags shave become an alternative to Plastic packaging material Nonwoven materials are used in numerous applications, including: Packaging, Hygiene, medical, Auto, Agricultural and Other uses.

PP bags industry in Tanzania currently it's not a new technology, after the government impose a statement of burning plastics bags uses in the country PP Bags has become

More importantly, Tanzania recycling and environmental actors have begun doubling down on the matter. An innovative solid waste recycling company has been taking a stake into the renewable plastic bags supply business with its own modal, including selling recycled waste materials in and out of the country and also recently training local artisans and entrepreneurs in Dar es Salaam business hub of Tanzania.

The government currently emphasizes all investors found in all of business related to the renewable bags industry, to ensure their affairs are accordance to the National Environment Management Councils (NEMC) and Tanzania Bureau of Standard and Small Development Organization (SIDO). The government encouraging investment into the industry for both raw materials manufacture primarily paper materials and renewable bags producers, to step up their game and cease the opportunity. Local governments stand to accrue more taxes from local business within the renewable bags line, through production, distribution and consumption. Also, recycling is an integral part of the renewable bags production, which eventually stimulate creation of job along the way, this will benefit local communities and amplify their economies over time.

Despite the importance of PP fabric to Tanzania, the value chain is currently fragmented and poorly coordinated. There are many layers and inefficient connections between producer and consumer. Trust, reliable information systems and the benefits of economies of scale are not well established. Past public sector support to plastic bags manufacture has focused mainly on production, and policies to encourage a market-based economy and private sector leadership have not taking the concept of environment destruction effect. There are examples of excellent progress in site-specific value chain development, but they are not widely replicated.

### **1.3. PP Bags fabric Processing Capacity**

PP Nonwoven bags capacity and production demand (in-region demand and exports) in East Africa is expected to continue to grow during 2018 – 2023 driven by favorable demographics, economic conditions, local and export market demand and increasing market penetration. Taken as a whole, the 5 countries (Tanzania, Kenya, Uganda, Rwanda and Burundi) are now estimated to be the first largest market and among the largest African countries economies. Attractive economic growth amongst the East African five countries spurs has led to rising employment, higher productivity and wages. This in turn has driven increased consumption of disposable nonwoven products and other consumer goods.

Increasing market penetration for disposable and durable PP nonwovens bags in East Africa and sub-Sahara countries, where market penetration is still low, is a positive predictive factor for good PP nonwoven bags demand growth in both. PP Nonwoven producers in the five countries are expected to benefit from good export demand from EU and USA in and outside the Asia-Pacific region. The largest market for converted PP nonwoven products will be in hygiene end uses followed by nonwovens used in durable geo-textile and other markets.

In 2019, PP nonwovens bags capacity in Tanzania consists largely of 60,000MT which are not enough to exploit the prevailing domestic market. The largest concentrations of these products are from both the regional cities and rural community especially of packaging agricultural goods products. The capacity of domestic industries is to produce 60,000MT annually which only hardily started in 2019 after the government intervention

towards burning of plastic bags. The line output will target farmers, food processing producers, etc.

#### **1.4. Demand of PP Nonwoven bags in Tanzania**

The global PP nonwoven bags market is expected to reach USD 42.1 billion by end of 2020, according to a new study by Grand View Research, Inc. Growing production of baby diapers on account of increasing birth rate particularly in Asia Pacific is expected to remain a key driving factor for the global nonwoven fabrics market. Increasing construction spending in emerging economies of China, India and Brazil is also expected to have a positive influence on the market growth. Volatile prices of key raw materials are expected to remain a key challenge for market participants over the next six years. Polypropylene nonwoven fabrics were the highest consumed product segment accounted for over 60% of total market demand in 2013. PP nonwoven fabrics are also expected to witness highest growth rate over the next six years. Increasing birth rates in emerging markets of India and China and increasing geriatric population in countries such as U.S.A, UK, Germany and Japan have driven the demand for baby diapers and adult incontinence products respectively. Increasing demand for baby diapers and adult incontinence products is expected to drive polypropylene nonwoven fabrics demand.

In Tanzania; increasing demand for personal hygiene products coupled with growing population is expected to be a key driving factor for the growth of PP nonwoven fabrics market over the forecast period. Increasing birth rate and aging population has contributed to growing demand for hygiene products such as food products, farmers packaging which in turn is expected to fuel the demand for PP nonwoven fabrics.

Tanzania has only 12 PP nonwoven fabrics companies situated in Dar es Salaam, Arusha, Mwanza, Tanga, and Mtwara regions. Dar Es Salaam region through the SHENG DA PLASTIC INVESTMENT LIMITED aimed to expand its own factory by adding more 12 machines in Lake zone for manufacture of PP Nonwoven fabrics in Tanzania, the company is expected to produce 21,120 M squire equivalent to 1,901KG per day. Annual production of PP Non-Woven bags is 570.2404MT, this production will add up to 60,000MT produced annually for the whole 12 supplier and manufacturer of Nonwoven fabric produced in the country.

Major suppliers and manufacturer of nonwoven fabrics bags in Tanzania;

1. Afro Mercantile Co. Limited- from Dar Es Salaam, Supplier of Non-ferrous metal
2. Arma Trading Company Limited- from Dar Es Salaam, supplier of Non-ferrous metals
3. Innovative International Ltd- from Dar Es Salaam, supplier of ferrous & Non-ferrous metals
4. Fahim Enterprises- from Arusha, Fabric materials, shipping
5. Kilengacom- from Dar Es Salaam, supplier of sisal fibres of all grades
6. Victoria Polybags company Limited, deal with plastic moulding and PP manufacturing
7. Ketki Tanzania Limited - from Tanga, supplier of sisal fibres, fabric and raw materials,

8. Pro. Worldwide investment- from Dar Es Salaam, Ebony handcraft, leather bags, batiki textile, fine arts products, textile fabrics, raw materials, wooden handcrafts
9. Jadacraft- from Dar Es Salaam, natural raffia fibres, other fibres, sisal bags & baskets
10. Metal enterprises (T) Limited- from Dar Es Salaam, supplier of ferrous and non-ferrous metal scraps, aluminium scraps, copper cathodes and copper scraps
11. Masasi Land Resources Limited - from Mtwara, supplier of live birds, reptiles and semi – precious gemstones
12. Sujana Industries Limited- from Dar Es Salaam, supplier of cotton seeds, cotton lint, cotton cake,

## 2.0. PROJECT OVERVIEW

### 2.1 The Industry

SHENG DA PLASTIC INVESTMENT LIMITED is a Tanzanian company registered in Tanzania with certificate of incorporation number 162357417 dated 03<sup>rd</sup> January, 2023. The office of the company is located at Matumbi nearby Mandela Road, Buguruni ward, Ilala district, in Dar es Salaam region, Tanzania. The project is just close to Matumbi-Mandela Road in Dar Es Salaam City. The permanent is P O Box 3496 Dar Es Salaam City, Dar Es Salaam Region. The project will be carried in Matumbi Industrial area. The initial Authorized Share Capital of the company is TZS 100,000,000/= divided into 10,000 ordinary shares of TZS 10,000 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 1 below.

**Table 1.1: Company Ownership and Principal Shareholders**

S/No.	Shareholder's Name	Address	Occupation of Subscriber	Number of Shares
1.	LIU HONGWEI (Chinese) (BUSINESS MAN)	P o Box 3496, DAR ES SALAAM, TANZANIA	Private Company by Share, Domicile in Tanzania- Incorporate Number 162357417	3,333
2.	JIAO GUANGAN (Chinese) (BUSINESS MAN)	P o Box 3496, DAR ES SALAAM, TANZANIA	Private Company by Share, Domicile in Tanzania- Incorporate Number 162357417	3,333
3.	YE CHANGGEN (Chinese) (BUSINESSMAN)	P o Box 3496, DAR ES SALAAM, TANZANIA	Private Company by Share, Domicile in Tanzania- Incorporate Number 162357417	3,333

### 2.2. Project Description

**Sheng Da Plastic Investment Limited** aimed at establish her own production line by importing Machine and equipments, the company will produce PP nonwoven fabrics bags; the project is expected to start by early March 2023 whereas raw materials will be imported from Asian countries and recycled materials will be collected from local suppliers hence generated substantial direct and indirect employment. The plant capacity is per double shift of 8hours per machines is1, 1,760M squires equivalent to 158.4 KG

per day. For 12 machines the plant capacity in production is 21,1200M Squire per day equivalent to 1,901KG. Annual production of 12 machines 570.244MT.

Production process of PP Non-woven bags involves, Tape line (PP Raffia), Baby Lofil HT, making fabric rolls for PP Bags, Cutting & stitching section involves use PP Fiber for stitching BCS Auto Cutting Stitching; Print section involves Printing Ink & IPA Stereo, and Packing section.

Raw material will be imported from India and China for both phases of project, the expected price of 40feets container is 1260US\$ free on-board price (FoB) while the transportation cost is 560 per container. Expected stock for raw material is 3-4 months so as the company will have a continuous operation in case of delay of importation of raw material from china or India to Tanzania.

The project envisages setting up modern equipment in installation of PP Woven bags making machines from India, the cost of all equipments and 273,192USD, this includes, Filaments/tape Winder Model LFM 200CM Quantities 144, cost 66,960US\$, Circular Loom Model LSL6 Quantities 12 cost 132,552US\$, filament /Tape winder LFW 200CM quantities 8, 3,688 Bag conversion Machines at 32,830US\$ ARM Strength brand flexographic Printing 7,662 US\$ and flight charges and contingents 13,500US\$.

### 2.3. Project Cost & Financing Pattern

The proposed integrated project is estimated to cost a total of US\$ 1,537,192 this including, own equity of US\$ 1,229,754 as proceeds from capital contribution of the project, total loan debt of 307,438US\$ with 8% interest rate. The Current asset of US\$ 290,061 fixed assets 1,437,192US\$ and total liabilities of 2,272,750US\$. The project will be implemented within 5 years.

<b><i>EQUITY +LOAN IN US\$</i></b>	
<b><i>CASH (80%)</i></b>	<b><i>1,229,754</i></b>
<b><i>LOAN (20%)</i></b>	<b><i>307,438</i></b>
<b><i>TOTAL EQUITY</i></b>	<b><i>1,537,192</i></b>

### 2.4. Business Plan Objectives

The objectives of this study are three-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).

Thirdly, it will be presented to Banks/Financial Institutions for application of short-term Loan 307,438US\$ to support smooth implementation and running of the proposed projects. 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.

## **2.5. Product: Demand and Market Analysis**

### **2.5.1. PP Nonwoven bags Products**

The Government supports PP non-woven bags as acceptable optional to carrier bags for farmers, industrial goods, food products, etc. the PP Non-woven bags are reusable and durable and helpful for environment protect. However, the manufacturers of these bags produced plenty of poor-quality bags which cannot to be used multiple times but are disposed of after single use. Finally, these disposable bags will also result in bad influence to environment.

The *Sheng Da Plastic Investment Limited* produce bags in different uses some includes, for Fertilizers, agricultural farm produce, Sugar, Food Grains, Fabrics, Sand Bags etc. the company will sales at a whole marketing price so as to provide profit margin to other distributors. The project wholes sale price of PP non-woven Bags is 844TZS.

### **2.5.2. Market potential for the PP non-woven bags:**

The market for PP Non-woven fabrics in world is to remain dominant for the highest growth in revenue as compared to other regions over the forecasted period, 2017-2025. The market in East Africa for PP Non-woven fabrics is expected to witness above average growth for the further few years. The economic development in East Africa is projected to have a positive impact on the market for PP non-woven fabrics. In Tanzania PP Non-woven fabrics market is expected to have considerable growth in terms of market value owing to technological advancements in the textile industries for these emerging economies which will witness a sizeable increase in the revenue contribution of the sales

Nowadays government has banned use of polythene bags because of environment concerns. PP Nonwoven bags are fast replacing polythene bags in the retail sector. There are very few bag making units in Tanzania and its neighboring countries. With availability of bags in the local market, the retails segment would gradually shift to PP non-woven bags. Creation of market for nonwoven depends upon the entrepreneur's ability to push the same in the market. Apart from retails segment, the PP non-woven bags are widely used from rural to urban areas.

The SHENG DA PLASTIC INVESTMENT LIMITED; Production will be local and international market, proportional for export to local market is 40:60, for export markets the proposed countries are Kenya, Burundi, Rwanda, Democratic Republic of Congo and South Sudan. Market intelligence conducted in domestic market still huge needs more PP non-woven fabric bags. For analysis purpose, the company expects to export 40% of its products and the remaining balance will be sold locally, mainly at Coastal, Southern, highland central and lake zone regions in Tanzania

From the analysis in the preceding chapter, the marketing of the final products in the country will not pose a problem either as even if the export markets collapsed the local market itself is able to take up whatever the project will produce.

### **2.5.3. Marketing Organization**

Sheng Da Plastic Investment Limited; will produce PP Nonwoven fabrics bag and sell at wholesale level. Importers from the neighboring countries will be expected to orders for their requirements to the company by mails, phones, and their orders will send to country of their destinations, but arrangements can also be made for the promoters to deliver directly to importer from Kenya, Burundi, Rwanda, Democratic Republic of Congo and South Sudan. Likewise, local buyers are expected to collect their requirements of the various products for the nonwoven fabric's bags, but the promoters will be flexible to deliver the goods on demand.

### **2.5.4. Pricing strategy**

The basis for pricing has been from observations and data collected from various parts of Tanzania, market behavior of raw materials and by- products, production costs and profit margins. Packaging will be done in good quality material and together with other materials, the pricing has been estimated at annual sales increase of 5% and this should allow a very high standard of packing. Proposed price of a Meter squire of PP Non-woven bags is 844TZS

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

### **2.6.1. Project Location**

The project will be located at located at Matumbi nearby Mandela Road, Buguruni ward, Ilala district, in Dar es Salaam region, Tanzania. The project is just close to Matumbi-Mandela Road in Dar Es Salaam City. The permanent is P O Box 3496 Dar Es Salaam City, Dar Es Salaam Region. The project will be carried in Matumbi Industrial area. The project is just close to tarmac road connecting ilala and Ubungo district, leading to Coastal, Morogoro region up to the centre of Tanzania.

### **2.6.2. Project Site analysis**

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.

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

The floor plan and elevation of buildings and other related structures will be rehabilitating to Sheng Da Plastic Investment Limited as owned by the shareholders. However, the total cost of Land acquisition and registration, factory buildings, Storage of raw materials and finished PP nonwoven fabrics products structure, the estimated cost of buildings 614,000US\$, project fixed cost have been estimated at US\$ 1,437,192, 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 141,292US\$. 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.

### **2.6.4. 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 double shift of 16 hours a day, 25 days a month or a total of 300 days a year.

The projects machinery and equipment will be sourced from China and are estimated to cost 273,192USD, this includes, Filaments/tape Winder Model LFM 200CM Quantities 144, cost 66,960US\$, Circular Loom Model LSL6 Quantities 12 cost 132,552US\$, filament /Tape winder LFW 200CM quantities 8, 3,688 Bag conversion Machines at 32,830US\$ ARM Strength brand flexographic Printing 7,662 US\$ and flight charges and contingents 13,500US\$. 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 49,360US\$

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.

### **2.6.5. Motor Vehicles**

5 heavy Box body trucks will be purchased in the first of production whereas truck will be purchased at a price of 60,000US\$ each totaling to 300,000US\$, and 10 Light

Vehicles Lorries for indoor distribution at a price of 25,000US\$ will add for smoothening distribution. Total cost for all type of truck is estimated to 550,000US\$.

### 2.6.6. 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 2,000US\$ 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.

### 2.6.7. 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\$

### 2.6.8. Initial Working Capital

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 40,000US\$.

### 2.6.9. Project Capital Investment Summary

<b>INVESTMENT SUMMARY</b>	
<b>FIXED ASSETS</b>	
LAND ACQUISITION AND BUILDINGS FOR WAREHOUSING	614,000
5 HEAVY VEHICLES 32MT @60,000	300,000
10 LIGHT VEHICLE LORRIES @25,000	250,000
<b>MACHINERIES AND EQUIPMENTS</b>	
FILAMENTS/TAPE WINDER MODEL LFM 200CM QUANTITIES 144	66,960
CIRCULAR LOOM MODEL LSL6 QUANTITIES 12	132,552
BAGS CONVERSION MACHINES MODEL BCS 850/45 QUANTITY 1	32,830
FILAMENT/TAPE WINDER MODEL LFW 200CM QUANTITIES 8	3,688
ARM STRENGTH BRAND FLEXOGRAPHIC PRINTING	7,662
TEX WOVEN SACKS MACHINERY	7,500
FLIGHT CHARGES	6,000
OFFICE FURNITURE	2,500
LABORATORY + EQUIPMENTS	8,000
FURNITURE AND FITTINGS	2,000

<i>CONTINGES</i>	<i>3,500</i>
<b><i>SUBTOTAL FIXED ASSETS</i></b>	<b><i>1,437,192</i></b>
<i>CURRENT ASSET</i>	
<i>PRE-OPERATIONAL EXPENSES</i>	<i>60,000</i>
<i>INITIAL WORKING CAPITAL</i>	<i>40,000</i>
<b><i>SUB TOTAL CURRENT ASSETS</i></b>	<b><i>100,000</i></b>
<b><i>TOTAL INVESTMENT</i></b>	<b><i>1,537,192</i></b>

### **2.6.10. 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:

### **2.6.11. Project Implementation**

Full implementation of the project is planned to take place by September 2020. Machineries and motor vehicles will be imported immediately while construction/renovation works are in process.

### **2.6.12. 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 1.901MT per day. Capacity utilization of the plant is 60% - 75%. The proposed project is a complete set of modern technology with output capacity of 158.4KG per Machine per day. All machines are from well-known Asia brands (India), after being over hauled, run 20-25 years.

### **2.6.13. Production flow description**

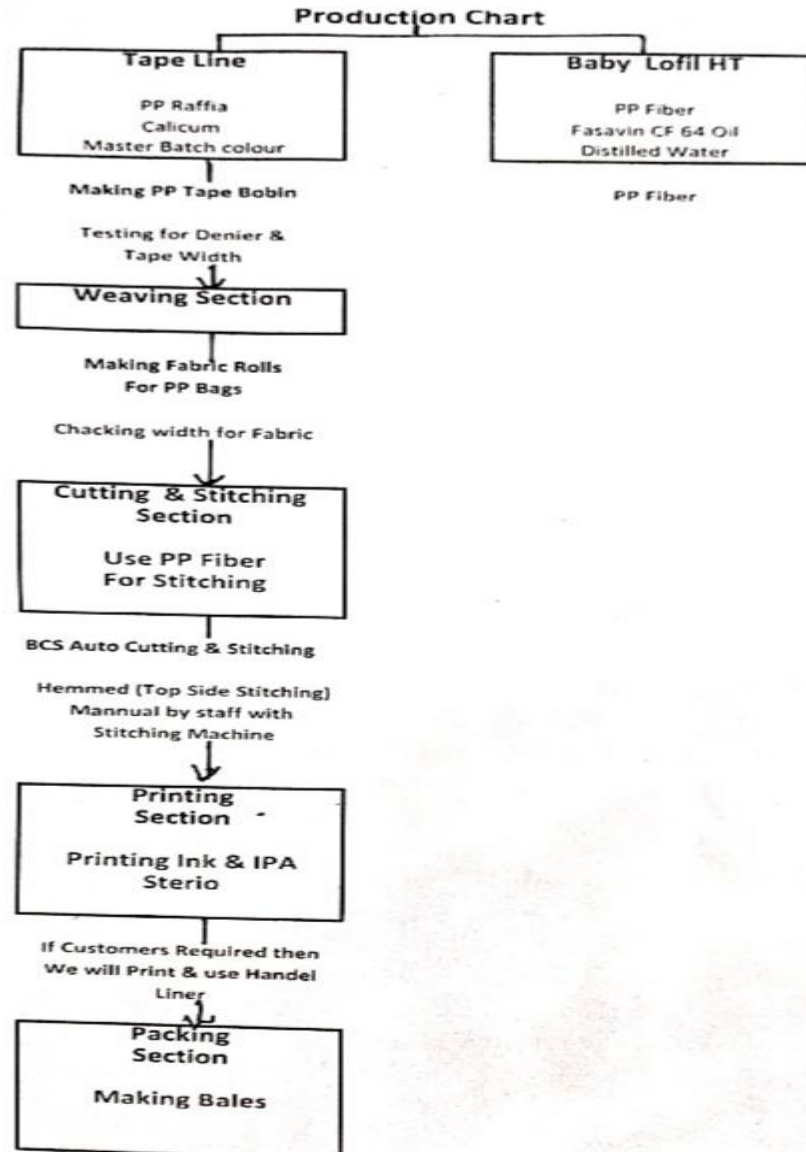
PP Nonwoven businesses, in general, rely on high volume production which is highly engineered and, because of competitive pressures, there is a constant need to innovate to ensure high quality, in-specification products are produced at the minimum cost. The industry is driven by technology developments in machinery, process control and materials and, to have a sustainable future, PP nonwovens enterprises need to be at the forefront of these developments.

PP Nonwoven manufacturing can be described in simple terms as a series of manufacturing steps consisting of forming a fibrous web, entangling or bonding the fibres in the web to impart mechanical integrity to the structure and finishing/converting the fabric to impart some special properties to the fabric that the customer specifies. The manufacturing steps are described below;

- Processing of fiber (Man-made, natural or recycled)
- Dyeing (if necessary)

- Opening
- Blending
- Laying (Dry lying, wet lying, spin lying)
- Bonding (Mechanical, thermal, chemical, stitch bonding)
- Raw PP non-woven fabric
- Finishing
- Finished PP non-woven fabric

Shows PP Nonwoven fabric production flow;



#### **2.6.14. 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 Kinyerezi in Dar es Salaam Region. There also a thermal power plant located at Ubungo power station power plant that save as alternative two for power supply from government agency. As part of an alternative power supply, the company is already installing a heavy duty 500KVA power generator automated generator that will be connected to the plant and premises for standby power supply.

The SHENG DA PLASTIC INVESTMENT 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 DAUWASA water network, the agency is major supplier of water to urban and peri urban area in the city. While depending on

water supply from DAUWASA, the main line is close to the proposed industry from RUVU to Dar Es Salaam city. 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 32 MT will be purchased and other 10 heavy trucks will be purchased and some will be hired for PP Non-woven bag distribution
- 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.

**2.6.15. Warehousing and distribution**

Sheng Da Plastic Investment Limited's warehousing service is ready to meet 24/7/365 with produced PP nonwoven fabric fibres 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.

**2.6.16. 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 SHENG DA PLASTIC INVESTMENT LIMITED; 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 the attitude of industrial managers toward the 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 be 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 REQUIREMENT AND PROPOSED SALARY BUDGET**

#### **3.1. Employment**

The whole process of production lines is looking at providing direct employment to at least 29 permanent jobs on full implementation and operation of the project. The industry is divided into 2 Departments; Corporate (1), Production (28), Marketing & sales, finance and administration department are already in place.

#### **3.2. Recruitment**

Recruitment of the 29 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 PP non-woven bags factories in Tanzania, based on demonstration of skills and aptitude basis and their willingness to work for SHENG DA PLASTIC INVESTMENT LIMITED. Careful methodology is being worked out by a competent management consultant who will set the job descriptions. To ensure that the right caliber 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:

<i>S/NO.</i>	<i>CATEGORY</i>	<i>NOS</i>	<i>MONTHLY SALARY (US\$)</i>	<i>TOTAL ANNUAL SALARY (US\$)</i>
<i>CORPORATE OFFICE</i>				
<i>1</i>	<i>ADMINISTRATORS</i>	<i>1</i>	<i>500</i>	<i>6,000</i>
	<b><i>SUB TOTAL</i></b>	<b><i>1</i></b>		<b><i>6,000</i></b>
<i>PRODUCTION DEPARTMENT</i>				
<i>2</i>	<i>PRODUCTION MANAGER</i>	<i>2</i>	<i>300</i>	<i>7,200</i>
<i>3</i>	<i>OPERATORS</i>	<i>12</i>	<i>240</i>	<i>34,560</i>
<i>4</i>	<i>HELPERS</i>	<i>12</i>	<i>180</i>	<i>25,920</i>
<i>5</i>	<i>SUPERVISOR-FABRIC FACTORY</i>	<i>2</i>	<i>280</i>	<i>6,720</i>
	<b><i>SUB TOTAL</i></b>	<b><i>28</i></b>		<b><i>74,400</i></b>
	<b><i>GRAND TOTAL</i></b>	<b><i>29</i></b>		<b><i>80,400</i></b>

## 4.0. FINANCIAL ANALYSIS

### 4.1. Production, Revenue and project viability

- ✚ The estimated revenue gain in selling PP Non-woven bags annually 2,345,432US\$ in the first year of production per 570.24MT excluding Value Added Tax.
- ✚ Net profit before tax is 564,113US\$, second year earning is 627,945US\$, which show the profit is increasing,
- ✚ Net profit after tax for the first years in production is 320,804US\$ and for remaining year increasing positively,
- ✚ Gross sales contribution in the first year of production is 24% which increases tremendously in the second years up to 5 years
- ✚ The expected sales increase annually is 5% while increase production cost is 3% which depends on inflation rate of the country, for Victoria Poly bags Limited,
- ✚ The discount rate has been assumed to be 8%,
- ✚ Total investment cost of the project is 1,537,192US\$ whereas the own equity is 807% and loan-able amount 307,438US\$
- ✚ The end balance of project in cash flow statement is positive and increases tremendous.
- ✚ The yearly loan payment schedule of project is 77,000US\$ for 5-year loan recovery schedule,
- ✚ Testing the project viability is positive whereas IRR is positive 11.97%, and payback period of project is within 4.2 years.

### 4.2. Capacity Utilization

For projection purposes, it is assumed that the plant will operate for a double shift with approximately of 8 hours per single shift, (makes 16 hours/day) in a day, 25 days a month or 300 days per year, processing a total of 570.24MT annually.

## 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 SHENG DA PLASTIC INVESTMENT 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 nonwoven fabrics bags 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 nonwoven fabrics facilities operation know-how is very low as there are notarized laborers.
- c) **Sales/market risk:** Placing value added products on the consumer markets bears risk of demand fluctuations and rejections through retailers. Furthermore, consumers are not aware of the nonwoven fabrics quality and safety criteria and are usually very price sensitive.

#### 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 SHENG DA PLASTIC INVESTMENT 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 Coastal 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 specially 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

<b>Impact Investment Index</b>		
<b>Frame Work for SHENG DA PLASTIC INVESTMENT LIMITED</b>		
<b>Performance Area</b>	<b>Quantitative Indicator</b>	<b>Remarks</b>
<b>Investment Capital</b>	Total investment capital, CAPEX and OPEX US\$ 1,537,192 US\$	Substantial amount of capital invested into the domestic economy.
<b>Export Earnings</b>	Indicative Annual sales of 40% earnings of 938,173US\$ out of annual average collection of 2,345,432US\$ for the project will be exported.	Increased foreign earnings.
<b>Job requirements</b>	Job creation after plant in operation 2020-2021. DIRECT TANZANIAN JOBS 29 locals employed	<ul style="list-style-type: none"> <li>• Reasonable number of direct jobs 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>		

- Increased sales to the Utility Companies providing services of electricity, water and sewerage, telecommunications;
- Increased business transacted by local banks and institutions providing financial services;
- Business opportunities for local entrepreneurs in market distribution channels,
- Business opportunities to contractors and sub-contractors during the minor construction phase;
- Increased regional intra-trade and international trade due to better infrastructure facility and links to markets;
- Increase of technology transfer & expertise to local employed staff,
- Capital spends in local economy over 1.54US\$ Millions and
- Contribution to GDP growth through increased economic activities

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, Sheng Da Plastic Investment 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 Sheng Da Plastic Investment 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 PP Non-woven plant is to speed up the country's economic development by being a catalyst for restructuring the existing local PP Non-woven industrial set up and attracting new, both foreign and domestic entrepreneurs to a liberalized legal business framework.

### 7.1. Project investment inputs

<i>Expected quantities for production</i>	<i>Unit</i>	
<b><i>Polybags Sales projections</i></b>	<b><i>KG</i></b>	
<i>Working days per month</i>	25	
<i>Annual working days</i>	300	
<i>Polybags production per Hour in Meter</i>	110	
<i>Polybags production per double shift (16 hours) in Meter per single machine</i>	1,760	
<i>Number of Machines</i>	12	
<i>Total production for 12 Machines per day in Meter</i>	21,120.0	1,901
<i>Annual production for 12 machines in 300 days</i>	6,336,000.0	570,240
<i>Price per Unit M squires in TZS</i>	844.0	
<b><i>Total Sale Revenue TZS</i></b>	<b>5,347,584,000</b>	
<b><i>sales in USD at exchange rate of 2300TZS</i></b>	<b>2,345,432</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 SHENG DA PLASTIC INVESTMENT 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 PP non-woven bags 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**

<b>Income Statement Projections</b>							
<i>(All numbers in US\$)</i>							
<b><u>Revenue</u></b>							
	<b><u>Year 0</u></b>	<b><u>Year 1</u></b>	<b><u>Year 2</u></b>	<b><u>Year 3</u></b>	<b><u>Year 4</u></b>	<b><u>Year 5</u></b>	<b><u>TOTAL</u></b>
<i>Revenue Generated from PP NW Bags</i>	-	2,345,432	2,462,703	2,585,838	2,715,130	2,850,887	12,959,990
<b>Total Operating Revenue</b>	-	3,345,432	2,462,703	2,585,838	2,715,130	2,850,887	12,959,990
<b><u>Expenses</u></b>							
	<b><u>Year 0</u></b>	<b><u>Year 1</u></b>	<b><u>Year 2</u></b>	<b><u>Year 3</u></b>	<b><u>Year 4</u></b>	<b><u>Year 5</u></b>	<b><u>Total</u></b>
<i>Salaries</i>		66,667	68,667	70,727	72,848	75,034	353,942
<i>Social Charges &amp; Pension Payments</i>		13,333	13,733	14,145	14,570	15,007	70,788
<i>Purchase of Raw Materials</i>		960,000	988,800	1,018,464	1,049,018	1,080,488	5,096,770
<i>Fuel and Lubricants</i>		29,325	30,204	31,110	32,044	33,005	155,688
<i>5 H/vehicles @ 60,000USD and LHV 10 @ 25,000USD</i>		550,000	566,500	594,825	624,566	655,795	2,991,686
<i>Factory overhead cost</i>		141,292	145,531	149,897	154,394	159,026	750,139
<i>Insurance/licensing/other charges</i>		5,702	5,873	6,049	6,230	6,417	30,271
<i>Other Costs</i>		15,000	15,450	15,914	16,391	16,883	79,637
<b>Total Operating Costs</b>	<b>1,781,318</b>	<b>1,834,758</b>	<b>1,901,131</b>	<b>1,970,061</b>	<b>2,041,654</b>	<b>2,041,654</b>	<b>9,528,923</b>
<b>Operational Net Earnings before Depreciation, Interest &amp; Tax</b>	<b>564,113</b>	<b>627,945</b>	<b>684,708</b>	<b>745,069</b>	<b>809,232</b>	<b>809,232</b>	<b>3,431,067</b>
<i>%Age Gross Contribution</i>		24	25	26	27	28	1
<b>Depreciation at 12.5%</b>	<b>49,360</b>	<b>54,945</b>	<b>59,912</b>	<b>65,194</b>	<b>70,808</b>	<b>70,808</b>	<b>308,796</b>
<b>Net Earnings before Tax &amp; Interest</b>	<b>514,753</b>	<b>573,000</b>	<b>624,796</b>	<b>679,876</b>	<b>738,425</b>	<b>738,425</b>	<b>3,122,271</b>
<b>Interest Paid (Bank Loan)</b>	<b>24,595</b>	<b>20,403</b>	<b>15,875</b>	<b>10,985</b>	<b>5,704</b>	<b>5,704</b>	<b>77,561</b>
<b>Tax (30%)</b>	<b>169,354</b>	<b>188,517</b>	<b>205,558</b>	<b>223,679</b>	<b>242,942</b>	<b>242,942</b>	<b>1,030,049</b>
<b>Net Earnings</b>	<b>320,804</b>	<b>364,080</b>	<b>403,363</b>	<b>445,212</b>	<b>489,779</b>	<b>489,779</b>	<b>2,023,238</b>

<b>CASH FLOW STATEMENT FROM INVESTING ACTIVITIES FOR TEN YEARS</b>					
<i>(ALL NUMBERS IN US\$)</i>	<b>YEAR 1</b>	<b>YEAR 2</b>	<b>YEAR 3</b>	<b>YEAR 4</b>	<b>YEAR 5</b>
<b><u>CASH FLOW FROM OPERATING ACTIVITIES</u></b>					
CASH RECEIPTS FROM SALES	2,345,432	2,462,703	2,585,838	2,715,130	2,850,887
CASH PAID TO SUPPLIERS AND EMPLOYEES	(1,781,318)	(1,834,758)	(1,901,131)	(1,970,061)	(2,041,654)
CASH GENERATED FROM OPERATIONS	564,113	510,455	673,837	813,021	948,505
DIVIDENDS RECEIVED*	0	0	0	0	0
INTEREST RECEIVED	0	0	0	0	0
INTEREST PAID	(24,595)	(20,403)	(15,875)	(10,985)	(5,704)
TAX PAID	(169,354)	(188,517)	(205,558)	(223,679)	(242,942)
<b>NET CASH FLOW FROM OPERATING ACTIVITIES</b>	<b>370,164</b>	<b>301,535</b>	<b>452,404</b>	<b>578,357</b>	<b>699,860</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	1,229,754	0	0	0	0
PROCEEDS FROM LOAN	307,438	0	0	0	0
PAYMENT OF LOAN	(52,405)	(56,597)	(61,125)	(66,015)	(71,296)
<b>NET CASH FLOW FROM FINANCING ACTIVITIES</b>	<b>1,484,787</b>	<b>(56,597)</b>	<b>(61,125)</b>	<b>(66,015)</b>	<b>(71,296)</b>
<b><u>NET INCREASE/ DECREASE IN CASH</u></b>	<b>1,854,951</b>	<b>244,938</b>	<b>391,279</b>	<b>512,342</b>	<b>628,563</b>
CASH AT THE BEGINNING OF THE PERIOD	320,804	364,080	403,363	445,212	489,779
<b>CASH AT THE END OF THE PERIOD</b>	<b>2,175,756</b>	<b>609,018</b>	<b>794,642</b>	<b>957,554</b>	<b>1,118,343</b>

## ANNEX II – BALANCE SHEET

<b>PRO FORMA BALANCE SHEET</b>					
<i>(ALL NUMBERS IN US\$)</i>	<b>YEAR 1</b>	<b>YEAR 2</b>	<b>YEAR 3</b>	<b>YEAR 4</b>	<b>YEAR 5</b>
<b>ASSET</b>					
<i>CURRENT ASSET</i>	320,804	364,080	403,363	445,212	489,779
<i>FIXED ASSET</i>	1,437,192	2,017,192	2,420,630	2,469,043	2,518,424
<i>LIQUIDITY</i>	564,113	510,455	673,837	813,021	948,505
<b>TOTAL ASSET</b>	<b>2,322,109</b>	<b>2,891,727</b>	<b>3,497,830</b>	<b>3,727,276</b>	<b>3,956,708</b>
<b>NET ASSET MINUS DEPRECIATION</b>	<b>2,272,750</b>	<b>2,836,782</b>	<b>3,437,918</b>	<b>3,662,082</b>	<b>3,885,900</b>
<b>EQUITY &amp; LIABILITIES</b>					
<i>EQUITY</i>	1,537,192	1,577,774	1,717,628	1,869,878	2,035,624
<i>RESERVES</i>					
<b>TOTAL OWN EQUITY</b>	<b>1,537,192</b>	<b>1,577,774</b>	<b>1,717,628</b>	<b>1,869,878</b>	<b>2,035,624</b>
<i>PROVISIONS</i>	439,844	938,546	1,377,821	1,426,331	1,459,526
<i>LONG TERM LOAN</i>	77,000	77,000	77,000	77,000	77,000
<i>SHORT TERM LIABILITIES</i>	218,714	243,462	265,470	288,873	313,750
<b>TOTAL EQUITY &amp; LIABILITIES</b>	<b>2,272,750</b>	<b>2,836,782</b>	<b>3,437,918</b>	<b>3,662,082</b>	<b>3,885,900</b>

### ANNEX III= LOAN PAYMENT SCHEDULE

<b>LOAN DATA</b>	<b>LOAN SUMMARY</b>				
ORIGINAL PRINCIPAL	307,438.40	SCHEDULED PAYMENTS		\$77,000	
LOAN TERM (YEARS)	5	SCHEDULED NUMBER OF PAYMENT		5	
ANNUAL INTEREST RATE	8.00%	ACTUAL NUMBER OF PAYMENT		5	
PAYMENTS PER YEAR	1	TOTAL EARLY PAYMENT		-	
PAYMENT	\$447,088	TOTAL INTEREST		\$1,470,885	
<b>YEAR</b>	<b>PAYMENT</b>	<b>INTEREST</b>	<b>CUMULATIVE INTEREST</b>	<b>PRINCIPAL</b>	<b>BALANCE</b>
0					\$307,438
1	\$77,000	\$24,595	\$24,595	\$52,405	\$255,034
2	\$77,000	\$20,403	\$44,998	\$56,597	\$198,436
3	\$77,000	\$15,875	\$60,873	\$61,125	\$137,311
4	\$77,000	\$10,985	\$71,858	\$66,015	\$71,296
5	\$77,000	\$5,704	\$77,561	\$71,296	\$0

### ANNEX IV – IRR

<b>IRR FOR THE PROJECT</b>		
(ALL NUMBERS IN US\$)		
	INITIAL INVESTMENT	-1,537,192
YEAR 1	ADDITIONAL ANNUAL NET PROFIT	320,804
YEAR 2	ADDITIONAL ANNUAL NET PROFIT	364,080
YEAR 3	ADDITIONAL ANNUAL NET PROFIT	403,363
YEAR 4	ADDITIONAL ANNUAL NET PROFIT	445,212
YEAR 5	ADDITIONAL ANNUAL NET PROFIT	489,779
	<b>IRR (IN 5 YEARS)</b>	<b>11.97%</b>
<p><b>THE IRR ABOVE INDICATES THAT THE EXPECTED RETURN ON THE US\$1,537,192 INITIAL INVESTMENT AFTER 5 YEARS IS 11.97%.</b></p>		

**ANNEX V – PAYBACK PERIOD**

<b>PAYBACK PERIOD ANALYSIS</b>				
	<i>YEAR</i>	<i>BEGINNING BALANCE</i>	<i>NET CASH FLOWS</i>	<i>ENDING BALANCE</i>
<i>COST OF INVESTMENT</i>	<i>0.00</i>	<i>1,537,192.00</i>	<i>0.00</i>	<i>1,537,192.00</i>
	<i>1.00</i>	<i>1,537,192.00</i>	<i>320,804.35</i>	<i>1,216,387.65</i>
	<i>2.00</i>	<i>1,216,387.65</i>	<i>364,080.29</i>	<i>852,307.36</i>
	<i>3.00</i>	<i>852,307.36</i>	<i>403,362.99</i>	<i>448,944.36</i>
	<i>4.00</i>	<i>448,944.36</i>	<i>445,211.58</i>	<i>3,732.78</i>
	<i>5.00</i>	<i>3,732.78</i>	<i>489,779.20</i>	<i>486,046.42</i>
<b><i>PAYBACK PERIOD =</i></b>		<b><i>4.00</i></b>	<b><i>YEARS</i></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 meat processing plant as prescribed on this business plan have shown that the project is commercially viable. Nonetheless, SHENG DA PLASTIC INVESTMENT 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 PP Non-woven bags plant facility is financed using a combination of equity debt ratio (80:20), it gives an IRR of about 11.97%. The computed IRR is well above Dollar market of the annual loan interest rate of (8.00%) 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 SHENG DA PLASTIC INVESTMENT 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 (2020-2025); Periodize private investment in the context of Public Private Partnership. The First Five Years Development Plan (2020-2025)

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 (2020-2025) 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 Tanzanian'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 SHENG DA PLASTIC INVESTMENT LIMITED to ensure development of one among the ultra-modern pp non woven bags plant to be developed in Ilala, Dar Es Salaam 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 PP Non woven bags Fabric plant will be funded by private finances. The company acting through its various shareholders and structures will provide the initial risk capital amounting to 1,537,192 US\$ and the amount of \$ 307,438 will be raised through borrowing from investment banks either within or outside the country. 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 Dar Es Salaam 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 PP Non woven bags Industrial requirement**

The company should engage a firm to make minor rehabilitation of existing structure that will suit PP Non woven bags Fabric 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 insomuch 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 the PP non woven bags Fabric 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.