

# **Project Feasibility Study**

**The Establishment of**

**Peace Success Tanzania Limited**

**Soap, Detergent & Personal Care Manufacturing Facility**

January 2021

## I. Executive Summary

This feasibility study is prepared to assess the marketability, technical feasibility and financial viability of establishing a Laundry Soap, Detergent & Personal Care manufacturing facility by Peace Success Tanzania Limited. The objective of the study is to determine the viability of establishing a project for soap, detergent & personal care production, processing, and marketing. Therefore, a detailed market, technical, organizational and financial studies have been conducted in this study.

Peace Success Tanzania Limited was established on the 5<sup>th</sup> of April 2018. The company is made up of two shareholders namely PT. Sinar Antjol and Mr. Eka Leonard Gunawan. According to the company's memorandum and articles of association, the registered capital of the company is 2,500,000,000 Tanzanian Shilling (two point five billion) with breakdown as shown on below table:

Name	Nationality	No. of Shares	Value per share (TZS)	Total Value (TZS)
PT. Sinar Antjol	Indonesian	2499	1,000,000	2,499,000,000
Eka Leonard Gunawan	Indonesian	1	1,000,000	1,000,000
Total		2500		2,500,000,000

The methodology adopted in this study includes primary and secondary data collection from relevant sources and analysis of the collected data. Based on the analysis, proposals have been developed as given in this report.

The market study revealed that demand exceeds supply. Based on estimate average consumption and production of relevant products, we estimate that demand exceeds supply by an average of 61,000 tons annually by 2025. This implies that the market still has room to accommodate new production facilities.

Tanzania has an abundant and resourceful labor force which, if proper training and guidance is given, will bring about a remarkable economic growth for the country. Moreover, the geographical location of the country provides it with a

strategic advantage and close proximity to other East African markets such as Kenya, Uganda, Rwanda and Burundi.

Tanzania is also a member of the East African Community, embracing markets with huge potential for exports and imports between member countries and enjoys preferential tariff rates. Hence, the establishment of Peace Success Tanzania Limited can play a significant role to boost the country's export, and generating valuable foreign currency influx into the country.

## II. Financing Structure & Financial Viability

The total investment cost of the project including working capital is estimated at TZS 2,500,000,000 (two point five billion Tanzanian Shilling), or equivalent of USD \$1,100,000 (one point one million US dollars). The major breakdown of the total initial investment cost is shown in the table below:

Exchange Rate 1 USD = 2300 TZS		
Description	Total	
	In USD	In TZS
Plant Machinery & Equipment	260,000	600,000,000
Land & Buildings	527,000	1,230,000,000
Motor Vehicles	25,000	50,000,000
Office Appliances & Furniture	15,000	20,000,000
Pre-Operational Expense	173,000	400,000,000
Working Capital	100,000	200,000,000
<b>Total</b>	<b>1,100,000</b>	<b>2,500,000,000</b>

Out of the total investment cost of TZS 2.5 billion, 100% will be covered by the project shareholders as part of equity contribution, amounting to TZS 2.5 billion. The financing structure of the project is presented in table below:

## Source of Finance and Financing structure

Financing Structure (In Tanzania Shilling)						
Description	Total cost		Promoter's Equity		Bank Loan	
	Amount	Percentage	Amount	Percentage	Amount	
Plant Machinery & Equipment	600,000,000	100%	600,000,000	0%	-	
Land & Buildings	1,230,000,000	100%	1,230,000,000	0%	-	
Office Appliances & Furniture	20,000,000	100%	20,000,000	0%	-	
Motor Vehicles	50,000,000	100%	50,000,000	0%	-	
Pre-Operational Expense	400,000,000	100%	400,000,000	0%	-	
Initial Working Capital	200,000,000	100%	200,000,000	0%	-	
<b>Total Investment Cost</b>	<b>2,500,000,000</b>		<b>2,500,000,000</b>			
<b>Contribution</b>	<b>100%</b>		<b>100%</b>			

The projected profit and loss statement indicates that the project is profitable throughout the project period. At the initial year of operation, the project is estimated to generate a net profit before tax of TZS 595 million and will gradually increase in the following years as the company increases its production output and capture bigger market share.

The projected cash flow statement indicates that at the initial year of operation, the cumulative net cash balance would be TZS 378 million. This is expected to reach to TZS 4.8 billion at the end of year ten. This shows that the company will have a healthy liquidity position and will not face cash shortage throughout the project life.

Establishment of the proposed manufacturing facility is expected to generate many socio-economic benefits such as employment contribution, inflow of foreign capital, as well as generating tax revenue for the government. In addition, the project is designed to be environmentally friendly that is in compliance with local and international regulations. Therefore, the benefit of this project is immense that it will help with the development of the country; hence it is recommended that the project should be implemented as soon as possible.

### **III. Country Profile**

#### **3.1. Overview of Country's Economy and Manufacturing Sector**

As of 2018, based on IMF data, Tanzania gross domestic product (GDP) was an estimated USD \$56.7 billion with GDP per capita at approximately \$3,500. From 2009 to 2013, Tanzania per capita GDP grew an average of 6.48% per year (data from 2010 to 2017), higher than any other member states of the East African Community (EAC). Tanzania weathered the Great Recession, which began in late 2008 to early 2009, relatively well. Strong gold prices bolstered the country's mining industry, and since then the economy has expanded rapidly due to strong tourism, telecommunications and banking sectors.

Review of the country's macroeconomic performance trend over the period covering from 2003/04 through 2012/13 shows that the country has been achieving a sustainable economic growth except in the year 2011/12. Overall, during these periods, the country has recorded an average GDP growth rate of about 6.48%, which makes it one of the fastest growing nations in the continent of Africa. Different international studies like World Bank and IMF show that Tanzanian GDP growth significantly outperformed the world average and Sub-Saharan Africa's average in the past years, and is likely to continue in the years to come. The government's commitment to develop the country's economy with supportive state policies and strategies as well as political stability have contributed for the impressive growth in new investments and corresponding economic growth for the country.

The overall macroeconomic policy adapted by the Tanzanian government, which allows a free market economy, has initiated many individuals who are able and willing, to invest in various business ventures. In addition, foreign investors are coming to Tanzania due to its impressive market size as well as tremendous growth potential. Commitment from the government for development, as reflected by the continuous effort to expand the country's infrastructure, led to ever-growing investment activities in every strata of the economy.

The industry sector as a whole is amongst the economic sector of the country that is benefiting from the prevailing conducive economic policy. Apparently, the

industry sector is an essential contributor for economic development of the country, and it is also at the forefront to bring about structural change for the whole economic activities. There are a number of industrial establishments in the country which are producing various types of goods being supplied to both domestic and international markets. As a whole, industrial and construction sector contributed 25% of GDP, while manufacturing sector on its own contributed 5.6% to the country's GDP in 2014.

The government of Tanzania has given due emphasis to the manufacturing sub-sector to accelerate production and productivity so as to bring rapid industrialization and economic transformation, particularly focusing on expansion of large and medium scale manufacturing industries, and micro and small scale manufacturing enterprises. Thus, the proposed project is in line with the government's stand to increase the role of manufacturing industry for the economy, and eventually realize the long term vision of industrialization and economic transformation. As a result of which the country is expected to record a high level of growth and development in the manufacturing sector so as to meet the country's vision to be a middle class income status by 2025.

At present, the manufacturing sector in Tanzania consists mainly of food processing, textiles and clothing, chemicals, and others including beverages, leather and leather products, paper and paper products, publishing and printing, and plastics. Since agriculture is the mainstay of the Tanzanian economy, the manufacturing industry is also centered on the processing of local agricultural goods.

### **3.2. Project Rational**

This proposed project would like to offer a diversification of investment towards the establishment of other type of manufacturing such as bar soap, detergent and personal care products, in which the aim is to supply the market with high quality but affordable daily necessity products, and satisfy the demand from ever growing population of the country.

The economic liberalization process being undertaken in the country and the strong commitment of the government to create a supportive environment for the development of the private sector have positively contributed to the growth of manufacturing sectors, especially for those that are focused on producing import substituting products. At present, the lack of domestic manufacturing facilities that are producing bar soap, detergent and personal care products mean that most of these items come into Tanzania as imported goods. Flood of imported goods do not generate positive economic activities for the country. Instead, it tends to waste valuable foreign currency and flood the market with unregulated products.

Apart from its strategic importance in economic terms, the establishment of the project under consideration will provide benefits to the country by saving its valuable foreign currency, and generating tax revenue for the government. Moreover, it will provide crucial employment and supporting the development of other industries that are within the company's supply chain. Finally, the proposed project ultimate aim is to supply the population of Tanzania with high quality and affordable daily necessity products, giving them a better quality of life and more value for money.

#### **IV. BACKGROUND INFORMATION**

##### **4.1. The Applicant**

**Company Name:** Peace Success Tanzania Limited

**Address:** Plot Number 8, Block B, Kisemvule, Mkuranga District, Coast Region  
P.O. Box: 2548, Dar Es Salaam - Tanzania

**Nature of Business:** Manufacturing

**Legal status:** Private Limited Company

##### **4.2. Project Promoters**

Peace Success Tanzania Limited is established under the ownership of a joint venture between an Indonesian Company called PT. Sinar Antjol and an Indonesian citizen named Mr. Eka Leonard Gunawan with the following details:

## Share Structure of the Company

Name	Nationality	No. of Shares	Value per share (TZS)	Total (TZS)
PT. Sinar Antjol	Indonesian	2,499	1,000,000	2,499,000,000
Eka Leonard Gunawan	Indonesian	1	1,000,000	1,000,000
Total		2500		2,500,000,000

### PT. Sinar Antjol

PT. Sinar Antjol is a well-known Indonesian company that manufactures a complete range of consumer goods products specializing in bar soap, powder detergent, household cleaning items and personal care products. The company was established in 1942 as a small home industry, and now has grown into an international company with sales in over 50 countries spread over 4 continents. The company is a pioneer in innovation, creating the first cream detergent in Indonesia under the legendary brand "B29", which is now famous all over the world especially in Africa.

As time progressed, the need for other high quality consumer products is increasing and the company was able to adapt to the changing demand. As a result, it rapidly evolved to become a great industry, able to produce a complete range of product with many brands under its belt.

Currently, the company owns and runs manufacturing plants for similar products in Ghana, Ethiopia, and China. It also opened sales offices in Madagascar & D.R. Congo. The company's appetite to grow its international sales is apparent in its drive to expand its overseas operations, and has become one of its core strategies to grow the business.

## **Eka Leonard Gunawan**

Eka Leonard Gunawan is the current chairman and CEO of PT. Sinar Antjol. Born in Jakarta, 11 January 1964, he joined PT. Sinar Antjol in 1986 and became the CEO in 1992. He has played a crucial role in developing the company's international business, and become one of the pioneers for exporting Indonesian products to Africa.

### **4.3. Scope and Objectives of The Project**

The stated business purpose and objectives for the establishment of the company is to promote and implement a production facility engaged in soap, personal care, detergent and house hold industry aimed at production and distribution of:

- I. Laundry soap & multipurpose soap.
- II. Beauty and medicated bath soap.
- III. Household cleaning products such as floor cleaners, dish-wash liquid.
- IV. Powder detergents, liquid detergents & cream detergents.
- V. Personal care products such as hand body lotion, mosquito repellent lotion, shampoo, toothpaste, fragrance body mist.
- VI. Plastic high density polyethylene bottle for the bottling of lotion products.

### **4.4. Product Description**

In addition to the product categories listed in the section immediately above, the company has a plan for the production, and trademark registration, of the following specific trademarks:

- B29
- KRIS
- MEDISOFT
- CITRUS
- WOW
- FOM

- GRACE
- AYU

## **V. MARKET STUDY**

### **5.1. General Overview**

Laundry tasks are becoming easier with modern cleaner products. Washing clothes and other item with water by hand or by machine will remove some but not all the stains, dirt, and particular soils. Laundry soaps are therefore used for the purpose of removing these particles from the items that need cleaning.

Based on the research made by Africa Based Consultants for Development, there are about one dozen of factories producing different types of soaps and detergents in Tanzania, while there are others in the pipe line to be operational in the near future (data as of 2015). These factories are not able to satisfy the domestic consumption demand for soap and detergents as evidenced by the need for the country to import these products year after year. The fact that substantial domestic consumption demand for these products in Tanzania is still covered through imports shows that there is abundant demand for new production capacity in the country to capture a reasonable share of the market.

In view of the foregoing, therefore, it is fair to conclude that the trend in the domestic consumption of soap and detergent is not only abundant but also growing over time, as a consequence from the combined factors of population growth, GDP growth and increased urbanization. To this fact is added the conducive environment existing for investment, and the government's priority for the manufacturing sector coupled with the potential for the substitution of imported products with domestically produced ones all add up for the success of the project to acquire substantial market share.

### **5.2. Demand Analysis and Projections**

The demand for laundry soap and detergent powder products basically depends on the price of the products, GDP levels, population size, and price of substitute goods and taste of consumers. The general importance of these products from the point of view of hygiene is not questionable. Nevertheless, the

The following table summarizes the total volume of soap and detergent products for the respective periods.

**Total volume of soap and detergent products:**

Year	Population in millions	Annual volume in tones		Total volume in tones	Daily per capita consumption in grams	Annual Per capita consumption in KG
		Domestic production	Imports			
2010	46.10	15,795	25,550	41,345	2.457	0.897
2011	47.57	22,456	20,046	42,502	2.447	0.893
2012	49.08	24,250	22,665	46,915	2.619	0.956
2013	50.64	26,879	25,669	52,548	2.843	1.037
2014	52.23	28,256	28,282	56,538	2.965	1.082
2015	53.88	33,914	34,558	68,472	3.481	1.270
2016	55.57	31,629	27,367	58,996	2.909	1.061
2017	57.31	30,771	22,442	53,213	2.544	0.929

As shown in the table above, average per capita consumption of soap and detergent related products in Tanzania, based on actual import and domestic production figures, in the period 2010 - 2017 was only 1.015 Kg per person per annum, which is well below the 4 -5 kg threshold for developing world. This statistic is also low by all standards when contrasted with the existing OECD opinion that the per capita consumption of soap and detergent in similar developing countries is about 3 kg per annum, when all local production and imports of these products in these countries are considered.

The fair estimate of per capita consumption above shows that the current effective demand, is substantially covered (up to 49%) by import of soap. The variation in the last column of the table above is also a clear indication that local production, with an increasing trend in the years under consideration, could not cope with the rising need for imports of soap products for the same period.

Furthermore, the rise in population size during the period reviewed, together with the average annual GDP growth of 6.48% that results in increased per

capita income, has not been accompanied by a rise in annual average per capita consumption of soap and detergents in the country. It is therefore the conclusion of this study that the currently depressed level of domestic per capita consumption, even with the corresponding level of imports, do not even nearly match the respective consumption level for similar developing countries of 4 - 5 kg, thus showing by itself the existence of substantial level of potential demand in the domestic market. The proven fact of economics is that the higher the size of consumers in a country, backed up by an average income per capita growing over time, the larger the effective demands for basic consumer goods like soap and detergents. This is reinforced by the obvious fact of increased urbanization, which is directly correlated with a higher level of effective demand for consumables.

## **B. Demand Projections**

In estimating the projected demand for soap, detergent & personal care products the following major factors are taken in to consideration:

- a. Demand projections, for the sake of being fairly realistic, would follow a conservative manner as much as possible.
- b. In the near future, per capita consumption of soap and detergent products would increase as a function of annual growth rate of population, especially urban population that is considered the major user of the product, although the rise in rural population, coupled with expected rise in house hold income, would also affect the level of total effective demand for the products.
- c. The project promoters would employ a fairly competitive product mix in terms of producing better quality products, competitive pricing, and high customer focus towards greater opportunity to capture higher market share.

Taking account of the above factors, the demand for soap and detergents is projected based on the 5% rise in urban population in the following table.

Year	Total demand In Tones
2020	92,187
2021	98,275
2022	104,606
2023	111,190
2024	118,038
2025	125,159

### 5.3 Supply Analysis and Projections

#### A. Existing Domestic Factories

Based on the research made by Africa Based Consultants for Development, there are about one dozen of factories producing different types of soaps and detergents in Tanzania, while there are others in the pipe line to be operational in the near future (data as of 2015). The range of volume of domestic production of soap and detergent was between 15,795 tons in 2010 and 30,771 tons in 2017. The average annual domestic production for the same period is 26,743 tons. The output of these factories is summarized in the table below:

Year	Annual volume in tons Domestic production
2010	15,795
2011	22,456
2012	24,250
2013	26,879
2014	28,256
2015	33,914
2016	31,629
2017	30,771

## B. Import Volume

According to Tanzanian Revenue and Customs Authority, imported soap in Tanzania is classified mainly in to the following three categories:

- i. Soap and organic surface active products in the form of bars
- ii. Soap and powder form, and
- iii. Soap Noodles

The following table summarizes import data for the entire category mentioned above from the period of 2011 to 2017:

Year	Annual volume in tons Import
2011	20,046
2012	22,665
2013	25,669
2014	28,282
2015	34,558
2016	27,367
2017	22,442

As shown above, import volume on average covers roughly 49% of the total supply of the products while domestic production covers roughly 51% of the total supply.

## C. Supply & Demand Gap

In order to estimate the supply & demand gap, the project is taken into account current domestic capacities that covers roughly 51% of the total supply and compare it with future projected demand gap. The gap can be presented on the table below:

year	Projected demand in tons	Domestic Supply share At 51%	Uncovered Demand
2020	92,187	47,015	45,172
2021	98,275	50,120	48,155
2022	104,606	53,349	51,257
2023	111,190	56,707	54,483
2024	118,038	60,199	57,839
2025	125,159	63,831	61,328

## VI. TECHNICAL STUDY

### 6.1. Project Engineering

#### A. Manufacturing Process

Any group of organic compounds that are salts of fatty acids, usually citric acids (with 18 carbon atoms) or palmitic acid (with 16 carbon atoms), can be defined as soap. In its industrial and house hold uses, soaps are cleansing mixtures of water and water-soluble salts of fatty acids, often with additives of other substances. Industrially, soap goes through the following four basic steps to be in a usable form:

- a. **Saponification:** in this step, animal fat (tallow) or palm fatty acid is mixed with sodium hydroxide and heated for some time at some temperature. The soap thus produced is the salt of a long chain carboxylic acid.
- b. **Glycerin Removal:** glycerin is produced as a byproduct in the course of soap making and is valuable. But most of it is removed, and some is left in the soap to help make it soft and smooth. Soap is not very soluble in salt water, whereas glycerin is, so the salt is added to the wet soap causing it to separate out into soap and glycerin.
- c. **Soap Purification:** any remaining sodium hydroxide is neutralized with a weak acid such as citric acid and two-thirds of the remaining water removed.

synchronized with that of the extruder, and its height aligned with the plodder as well as the stamping.

5. **Stamping:** this involves engraving the trademark of the soap, horizontally or vertically.

### C. Technology Selection and Processing Machinery

The technology selected by the company for finishing laundry and toilet soap involves the following machinery and equipment:

- a. **Ribbon Mixer:** mixing soap noodles with water and other ingredients with a capacity of 25 cubic meters per batch of mix.
- b. **Triplex Plodder:** a single worm, three-stage machine having a vacuum chamber with steel cylinders for cooling with water, its nose being fitted with a heater to heat the soap before extrusion. Its basic functions are refining, evacuating the air, and extruding the refined soap in a continuous bar form and transfer it by conveyor for cutting and stamping.
- c. **Mark pulling and Cutting Machine:** a dual purpose machine with a single wheel fitted with a stamping plate and a cutter. The maximum thickness of the extruded soap bar is about 40 mm.
- d. **Packaging:** the promoters selected, based on the project's marketing strategy and unique branding, a bar soap packing machine.
- e. **Filling Machine:** a filling device for dish wash liquid, a filling machine for liquid cosmetic (bottle filling machine) and a liquid sachet machine (sachet packing machine) for liquid soap.
- f. **Injection Blow Mold:** injection blow mold is the process whereby the plastic preform is injected onto a mold and the preform travels on the core rod to the blow mold station, where blow air enters through the core rod and lifts the hot preform material off the core rod and forms it by air pressure to the

design of the mold. This machine will be used to create the bottles for hand body lotion products.

Below the list of machinery that will be prepared for the initial stage of operation:

**A. Soap Production**

Mixer - 1 unit  
Plodder Duplex - 1 unit - capacity 1 ton / hour  
Stamping machine 1 Cavity - 1 unit  
Conveyor - 3 units  
Low temperature chiller - 1 unit  
CIJ Printer - 1 unit  
Ink for CIJ Printer  
Poly Pack Machine - 1 unit  
Carton Sealer - 1 unit

Estimate total cost for soap production machines is USD 49,000

**B. Powder Production**

3D Mixer - 1 unit  
Auto Filling Machine - 1 unit  
Carton Sealer - 1 unit

Estimate total cost for powder production machines is USD 30,000

**C. Hand Body Lotion Production**

Mixer - 1 unit - 500 liters capacity  
Gear Pump - 1 unit  
Auto Filling Machine - 1 unit  
Conveyor - 3 units  
Steam Generator - 1 unit  
Poly Shrink Wrap Machine - 1 unit  
CIJ Printer - 1 unit  
Ink for CIJ Printer  
Carton Sealer - 1 unit

Estimate total cost for hand body lotion production machines is USD 46,000

**D. Injection Blow Mold**

Injection Blow Mold Machine, mold & equipment  
Water Chiller - 1 unit

Estimate total cost for injection blow mold equipment is USD 68,000

### **E. Utilities Machine**

Air Compressor - 1 unit  
Air Tank  
Water Pumps - 2 units  
Transformer 500 KVA + installation  
Generator 135 KVA  
Electrical Panels  
Electrical Parts  
Piping

Estimate total cost for utility machines is USD 66,000

### **F. Laboratory Equipment**

Weighing Scale 3 KG - 3 units  
Weighing Scale 300 KG - 1 unit  
Pycnometer - 1 unit  
Analytical Scale - 1 unit  
PH Meter

Estimate total cost for lab equipment is USD 1,000

Estimate total cost for the whole machinery is **USD 260,000 or TZS 600,000,000.**

### **6.3 Motor Vehicles**

The project promoter has planned to acquire different types of vehicles for the purpose of transporting finished goods, market surveys & visits, and providing transport services for staff. The table below shows lists of the motor vehicles to be purchased:

<b>Items</b>	<b>Unit</b>	<b>Price in USD</b>	<b>Total Price in USD</b>	<b>Price in TZS</b>
Toyota Hilux	1	25,000	25,000	50,000,000
			25,000	50,000,000

## VII. ORGANIZATION AND MANAGEMENT

### 7.1 Organization Structure

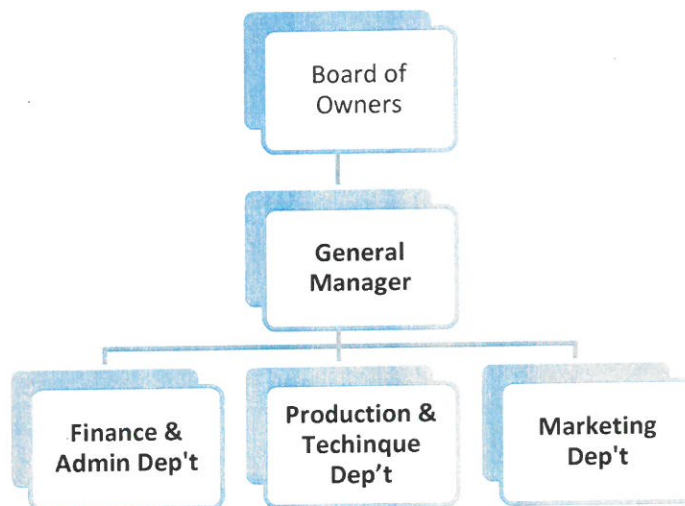
The organization of the envisaged project will have three main departments directly reporting to the General Manager. These departments, each having its own manager and detailed technical staff, will assume the following tasks:

- Production
- Marketing and sales, and
- Finance and Administration

Each department will have a responsibility to plan, direct, control, and co-ordinate every activity and personnel in their respective domain in a way to achieve overall company business objectives, while the GM will be responsible to co-ordinate and lead these departments and the overall activities of the company.

The following organizational structure depicts the work relations and span of control in the overall activities undertaken within and outside the company.

**Chart 2: organizational Structure**



## 7.2 Manpower Planning

The project is estimated to provide employment opportunities for 80 local employees at its initial year of operation. A detail of manpower requirement and estimated annual salary expenditure is presented below:

Name	Expat / Local	Skill / Non-skill	Manpower	Annual Cost (in TZS)
General Manager	Expat	Skill	1	82,800,000
Vice General Manager	Expat	Skill	1	69,000,000
Factory & Technical Manager	Expat	Skill	1	55,200,000
RND Manager	Expat	Skill	1	55,200,000
Finance & Accounting	Local	Skill	6	18,500,000
Sales & Distribution	Local	Skill	8	24,800,000
Marketing	Local	Skill	3	18,500,000
General Administration Service	Local	Non Skill	4	12,200,000
Production	Local	Non Skill	50	140,800,000
Research & Development + Lab	Local	Skill	6	25,400,000
Security Guard	Local	Non Skill	3	8,600,000
<b>Total</b>			<b>84</b>	<b>511,000,000</b>

The initial estimate for annual manpower cost of the factory in terms of salary, employment benefits & insurance are estimated to be TZS 511 million. This figure will continue to grow as the factory expands its operations, thus the need to hire more talents arise.

## VIII. FINANCIAL STUDY

### 8.1. Total Investment Cost

The investment component of the project encompasses procurement of machinery, vehicles, lab and office equipment, working capital and pre-operating costs. The total investment cost of the project is estimated at TZS 2,500,000,000. Detail of the investment cost is presented in the table below:

Exchange Rate 1 USD = 2300 TZS		
Description	Total	
	In USD	In TZS
Plant Machinery & Equipment	260,000	600,000,000
Land & Buildings	527,000	1,230,000,000
Motor Vehicles	25,000	50,000,000
Office Appliances & Furniture	15,000	20,000,000
Pre-Operational Expense	173,000	400,000,000
Working Capital	100,000	200,000,000
<b>Total Investment Cost</b>	<b>1,100,000</b>	<b>2,500,000,000</b>

## 8.2. Financing Sources and Structure

The investment cost of the project will be financed 100% from foreign capital injection as owner's equity during the initial stage. Loan will be considered should it be necessary. All fixed assets investment and pre-operating costs are expected to be covered by the project promoters. The detail of the financing structure is indicated in the table below:

Description	Financing Structure				
	Total cost	Promoter's Equity		Bank Loan	
		Amount	Percentage	Amount	Percentage
Plant Machinery & Equipment	600,000,000	100%	600,000,000	0%	-
Land & Buildings	1,230,000,000	100%	1,230,000,000	0%	-
Motor Vehicles	50,000,000	100%	50,000,000	0%	-
Office Appliances & Furniture	20,000,000	100%	20,000,000	0%	-
Pre-Operational Expense	400,000,000	100%	400,000,000	0%	-
Working Capital	200,000,000	100%	200,000,000	<b>0%</b>	-
				0%	-
		100%	-	<b>0%</b>	
<b>Total Investment Cost</b>	<b>2,500,000,000</b>		<b>2,500,000,000</b>		
<b>Contribution</b>		<b>100%</b>		<b>0%</b>	

## 8.3 Pre-Operational Costs

This category of cost comprises all costs incurred by the project promoter before commencing operation on the project. It includes expenditures such as Tanzania Investment Center (TIC) membership fees, fees to obtain working & residential permit for our expatriate general manager, rental on temporary office

space, fees to obtain business visa for initial arrival of our general manager into Tanzania, and fee to create a comprehensive feasibility study to be presented to TIC. The detail of these pre-operating costs to be is presented below:

<b>Pre- operating Cost</b>	<b>TZS</b>
Documentation & Licenses	150,000,000
General Manager Expenses & Salary	200,000,000
Pre-project Preparation	50,000,000
<b>Total</b>	<b>400,000,000</b>

#### **8.4 Working Capital Determination**

Working capital represents minimum cash that must be available at any one time to ensure the project's smooth operation. The project must have stockpile of raw materials that may last for 60 days from foreign purchases. The raw material stock level maintained must ensure continuous operation until order is placed and goods are transported and received.

#### **8.5 Financial Viability**

##### **A. Profitability**

The projected profit and loss statement forecasted for 10 project years shows that net profit before tax by the end of its initial year will be TZS 595 million. The net profit before tax at the end of the projection period of year ten is estimated to reach TZS 950 million. The operation, throughout its estimated project life of 10 years, could generate an average net profit before tax of TZS 820 million per annum.

##### **B. Liquidity**

The projected cash flow statement indicates that at the initial year of operation, the cumulative net cash balance would be TZS 378 million. This is expected to reach to TZS 4.8 billion at the end of year ten. This shows that the company will have a healthy liquidity position and will not face cash shortage throughout the project life.

The investment cost and income statement projection are used to estimate the project return on investment. The project's initial investment can be fully recovered within 2 years of operation.

## **8.6 Assumptions Used for Financial Analysis**

### **A. Revenue Estimation**

The following assumptions are employed in the determination of forecasted revenues for all the product categories:

- As a measure of project viability, the project life is measured with a time period of ten years from its initial operation year.
- Hundred percent of working capital costs shall be recovered at the end of the project's life.
- Cost estimates shall rise 10% per annum for the entire life of the project, except insurance and promotional costs.
- Taking account of the facts that
  - The promoters are competent in the soap and detergent business
  - Would hire competent managers and capable staff
  - Will also adopt good marketing strategy

Capacity utilization of the project is assumed to be 80% in its first year, with 5% additional capacity each year until the end of the fourth year, where 95% capacity is considered for the remaining of its life.

### **Revenue from Soap**

The project is expected to have four types of soap, of which there will be a Medisoft toilet soap 90 gram, Citrus toilet soap lemon variant 80 gram, Citrus toilet soap lime variant 80 gram, B29 laundry soap 250 gram. The following factors are taken into consideration when estimating revenue from soap:

- Selling price of the product per carton of finished product.
- Machine capacity (we estimate with 80% capacity as average capacity that can be realized).
- Labor working shifts and number of productive hours per day.

Therefore, the following revenue from these types is determined, at 80% capacity utilization rate, as follows:

Revenue at 80% capacity	Selling Price per carton (TZS)	Monthly production output (in carton box)	Monthly Revenue (before VAT) in TZS	Yearly Revenue (before VAT) in TZS
Product Name				
Medisoft 90gr X 72pcs	38,000	5000	190,000,000	2,280,000,000
Citrus lemon variant 80gr X 72pcs	33,000	4000	132,000,000	1,584,000,000
Citrus lime variant 80gr X 72pcs	33,000	4000	132,000,000	1,584,000,000
B29 Laundry soap 250gr X 100pcs	78,000	1500	117,000,000	1,404,000,000
total revenue				6,852,000,000

The number of soap produced per hour is obtained by dividing the total hourly capacity allocated for that type of soap to the respective weight of soap in grams.

#### Revenue from Hand Body Lotion

The proposed project will also produce KRIS hand body lotion 100ml X 72pcs which will be the backbone of the company's personal care product. The bottle of the hand body lotion will be produced in the factory by using injection blow mold technology derived from high density polyethylene plastic imported from overseas. The estimate revenue at 80% capacity is projected as below:

Revenue at 80% capacity	Selling Price per carton (TZS)	Monthly production output (in carton box)	Monthly Revenue (before VAT) in TZS	Yearly Revenue (before VAT) in TZS
Product Name				
Kris Hand Body Lotion 100ML X 72pcs	42,000	5000	210,000,000	2,520,000,000

#### Revenue from Powder Detergent

The proposed project will also produce powder detergent B29 powder softener 900gr X 10 pcs which will be the backbone of the company's powder detergent product. The estimate revenue at 80% capacity is projected as below:

Revenue at 80% capacity	Selling Price per carton (TZS)	Monthly production output (in carton box)	Monthly Revenue (before VAT) in TZS	Yearly Revenue (before VAT) in TZS
Product Name				
B29 powder detergent softener 900gr X 10pcs	32,000	3000	96,000,000	1,152,000,000

The total annual revenue of the envisaged project from all the product categories combined is estimated to reach TZS 10.52 billion. It is estimated that the company can earn annual net profit before tax of TZS 595 million (5.65% of revenue).

#### **B. Costs Component**

##### Cost of Goods Sold

The cost of goods sold involve the landed cost of each raw material and packaging material that are imported from overseas, as well as packaging materials that are sourced locally in Tanzania, to make up the finished product. The range of cost of goods sold varies between 75% of the selling price to 82% of the selling price, depending on the product itself, which mean that some product category like personal care could earn higher contribution margin compared to

soap and powder detergent. The project put an estimate cost of goods sold of around 79-80% from its selling price, which mean the average contribution margin of all the products combined is estimated to be around 20-21% from its revenue.

### **Marketing and Sales Expenses**

This category of expenses are assumed to be significant during the first few years of operation, since it is expected to strive hard to penetrate the respective market and to increase consumers awareness of its existence. The initial costs in this regard are thus assumed on average to be 2% of total revenue for the first few years of the project. As time progresses, this cost in terms of percentage could slowly reduce as the company earn bigger revenue. Here, the project is expected to need advertising and promotion services on sponsorship of activities, brand awareness campaign, and media advertising.

### **Utility Expenses**

This category of expenses refers to electricity, water and telephone costs, as well as diesel fuel and gasoline for generator. The project estimates the cost of utilities could make up approximately 3.50%-4.00% from revenue due to the high cost of electricity in Tanzania and diesel fuel for generator. This utilities cost is projected to reduce as a percentage as the company design its operation in a more efficient way that could reduce consumption of utilities as per unit of production output. The estimate consumption of utilities is projected as below table:

No.	Description	Unit Consumption per hour	Unit Price (TZS)	Hour Usage / day	Working days / year	Annual Total Cost (TZS)
1	Electricity (kWh)	210 kwh	360 per kwh	16	300	362,880,000
2	Water (m3)	0.8 m3	1663 per m3	16	300	6,385,920
3	Diesel fuel (liters)	0.25 liters	1280 per liter	16	300	1,536,000
	<b>Grand Total</b>					<b>370,801,920</b>

### Labor & Employment Cost

Annual labor & employment costs for initial year of operation is estimated to be TZS 511 million which include salaries, employment benefits, employee insurance

and employee transportation. The details as below table:

Name	Expat / Local	Skill / Non-skill	Manpower	Annual Cost (in TZS)
General Manager	Expat	Skill	1	62,000,000
Vice General Manager	Expat	Skill	1	49,000,000
Factory & Technical Manager	Local	Skill	1	36,000,000
RND Manager	Local	Skill	1	36,000,000
Sales Manager	Local	Skill	1	36,000,000
Sales & Distribution Staff	Local	Skill	10	50,000,000
Finance & Accounting Staff	Local	Skill	6	24,000,000
R&D + Lab Staff	Local	Skill	3	15,000,000
Quality Control Staff	Local	Skill	3	12,000,000
Marketing	Local	Skill	3	19,000,000
General Administration Service	Local	Non Skill	4	12,000,000

Production Labor	Local	Non Skill	40	142,000,000
Cleaning Service	Local	Non Skill	4	9,000,000
Security Guard	Local	Non Skill	4	9,000,000
<b>Total</b>			<b>82</b>	<b>511,000,000</b>

The bulk of the expenses will comprise around 85% for salary, while the remaining 15% is to cover employment benefit, employee insurance as well as transportation.

#### **Applied Depreciation Rates**

The project uses a depreciation rate of 10% which will cover the entire fixed asset investment value over 10 years period. This rate is common with international standard for newly acquired fixed assets.

#### **Interest Expense**

Since the management of the project will source the finance of its working capital of TZS 200,000,000 from its own equity, thus no interest expense will be incurred annually. However, future interest expense may be incurred if needed extra fund from local loan.

### **8.7 Summary of Profit & Loss Statement**

Based on the revenue and costs projection as stated above, below is the estimate table breakdown for the profit & loss statement during the project initial year of operation:

Description	Yearly Value (in TZS)	Percentage (%)
Revenue	10,524,000,000	100%
Cost of goods sold	8,419,200,000	80%
Contribution margin	2,104,800,000	20%
Marketing & Sales Expense	210,480,000	2%
Utility expenses	370,801,920	3.52%
Labor + Employment Cost	511,000,000	4.86%

Other Expense	179,400,000	1.71%
Operating Profit	833,118,080	7.91%
Depreciation	110,400,000	1.05%
Estimated Interest Expense in the future	127,362,076	1.21%
Net Profit Before Tax	595,356,004	5.65%

#### Working Capital Determination:

Working capital represents minimum cash that must be available at any one time to ensure the project's smooth operation. The project must have stockpile of raw materials that may last for 60 days from foreign purchases. The raw material stock level maintained must ensure continuous operation until order is placed and goods are transported and received. The project proposed working capital of TZS 200,000,000 (two hundred million shilling) or USD equivalent of \$100,000 (one hundred thousand dollars) will be sourced from owner's equity and the fund will be used for the following purpose as stated in below table:

Description	Value (in USD)	Value (in TZS)
Import of materials for first production	75,000	150,000,000
Initial payment of employment salary from first batch of recruitment	10,000	20,000,000
Initial operational expenses	15,000	30,000,000
Total	100,000	200,000,000