

QUALITY FOAM LIMITED  
P.O. BOX 9153, DAR ES SALAAM,  
TANZANIA

## BUSINESS PLAN

Investment for New Foaming  
Factory and Expansion at  
Saeni - Kibaha and  
Mwanambaya – Temeke,  
Tanzania



September 2024



# BUSINESS PLAN FOR NEW FOAMING FACTORY AND EXPANSION AT SAENI - KIBAHA AND MWANAMBAYA – TEMEKE, TANZANIA

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## EXECUTIVE SUMMARY

**Background** - Quality Foam Ltd (QFL) has been manufacturing foam mattresses since its establishment in 1991 in Tanzania and the present production at their only plant in Mikocheni is 5,400 tons/year having increased 7% annually in the last 10 years. The plot is saturated, and the congestion is limiting increase in production, New players therefore have entered the market and thus reducing QFL's market share which at present stands at 25% between 11 mattress manufacturers and 4 of which have been established recently. The current 2023 annual sales is TShs 69.2 Billion and the revenue to government in the form of corporate taxes and VAT is about TShs 15.0 Billion.

**Objectives** - The objective of the investment is therefore to remove the constraint of increasing production at the present Mikocheni Plant due to congestion by acquiring and developing two new plots at Saeni – Kibaha and Mwanmbaya – Temeke and installing a second foaming line and having storage for raw materials and finished goods.

QFL has accumulated retained earnings that can be used as equity for this new investment and no loans will be necessary if the investment is spread over several phases.

**Investment Plan** - The investment plan is summarized as follows :

- a) Land - acquire and secure – at Kibaha and Kisemvule - \$1,045,000
- b) Phased Building Development comprising pre-engineered steel structure including utilities :

2024/26 - 15,000 sqm @ \$150 = \$2,250,000

2026/28 - 15,000 sqm @ \$150 = \$2,250,000

2028/30 - 15,000 sqm @ \$150 = \$2,250,000

Total Buildings - \$6,750,000

- c) Plant & Machinery with Accessories - \$4,320,000
- d) Racking System - \$3,600,000

Sub-Total = \$15,715,000

Add Contingencies 5% - \$785,000 (Vehicles \$200,000, Furniture & Fittings \$100,000, Pre-expenses \$100,000 and Others \$385,000)

Total - \$16,500,000 (Local - \$5,000,000 (30%) and Foreign - \$11,500,000 (70%))

**Benefits** - The investment will have following benefits :

### With And Without Project Scenario

	PARAMETER	WITHOUT PROJECT	WITH PROJECT	INCREMENTAL INCREASE
1	Nrs of Production / week	6	12	6
2	Nrs of production / year	300	600	300
3	Production duration minutes daily	110	250	140
4	Length of foam daily	500 m	1500 m	1000 m
5	Nrs of Blocks daily	405	1220	815
6	Annual Foam Produced for Sale	5,400 tons	16,400 tons	10,900
7	Average Manufacturing cost	\$3.90 / kg	\$3.70 / kg	Saving \$0.20/kg
8	Average Sale Price	\$4.63 / kg	\$4.63 / kg	-
9	Investment	Nil	\$16,500,000	\$16,500,000
10	Sales Revenue @ \$4.63 per kg	\$25,000,000	\$75,000,000	\$50,000,000
11	Annual taxes paid to Government	TShs 15.0 billion	TShs 45.0 billion	TShs 30.0 billion
12	Profit before tax	18.7%	25.1%	+6.4%

**Implementation Plan** - The works will be carried out in phases.

- Phase 1 (2024-25) – Land Acquisition, Fence wall and Levelling - \$1,127,000
- Phase 2 (2024-26) - Building 1 - \$2,362,000
- Phase 3 (2026-28) - Building 2 - \$2,362,000
- Phase 4 (2028-30) – Building 3, Foaming Plant, Racking System - \$10,678,000

The total Investment to be made will be about \$ 16,500,000.

**Operative Date** – The Operative Date is July 2031 when operations can begin.

**Environmental Issues** – Upon issue of the TIC Certificate, a detailed EIA Study will be submitted to NEMC fulfilling their requirement. All negative impacts related to this project can be mitigated. Foaming Industry is a dry industry and has no liquid trade waste and the solid waste resulting from cut foam pieces are rebounded to make orthopedic mattresses.

**Employment** – Additional 240 people will be employed. 6 staffs will have to be foreign for which work permit will be availed. Indirect employment is estimated to be about 5,000.

**Financial Analysis**

Year 2024 to Year 2030 – Implementation showing cash outlay of US \$ 16,500,000. Year 2031 to Year 2040 shows production and sales increasing gradually at 8.5% annually and the profit margin assumed is 25.1%.

**Profit & Loss** - The incremental Profit & Loss are summarized below :

Year	2031	2040
Sales	\$15,045,000	\$31,352,000
Net Profit after tax	\$3,450,000	\$4,710,000
VAT 18%	\$2,930,000	\$5,870,000
Corporate Tax	\$876,000	\$1,646,000
Total Taxes	\$3,806,000	\$7,516,000

The government revenue in form of corporate tax and VAT 18% is significant increasing from US \$ 3.8 million in 2031 to US \$ 7.5 million in 2040.

**Project Incremental Cash Flow** - There is always surplus and never deficit. During implementation, the surplus increases from \$0.3 million in Year 2025 to \$5.3 million in Year 2040, accumulating to US \$ 52.4 million.

**Discounted Cashflow Analysis** - The discounted cash flow analysis yields an Internal Rate of Return of 22.49% which is much higher than the cost of capital 12% and the real terms interest rate of 6% and inflation of 2%.

**Sensitivity Analysis** summarized below :

Parameters	IRR	Comments
Profit 25.1% Annual Growth 8.5%	22.49%	Estimated
Profit 25.1% Annual Growth 5%	21.59%	Growth Reduced – Variable Costs
Profit 5.55% Annual Growth 5%	12.01%	Break-even with Cost of Capital

The IRR therefore is not sensitive to volume of sales because of the direct variable manufacturing cost having a higher proportion.

For the break-even IRR of 12% (cost of capital), the profit margin has to go down to 5.55%. This will never be the case. This demonstrates that the investment is robust and viable.

**Economic Benefits** – include the employment this investment creates and the increase in government revenue from US \$ 3.8 million in 2031 to US \$ 7.5 million in 2040.

## 1. BACKGROUND AND OBJECTIVES

### 1.1 QUALITY FOAM LTD

Quality Foam Ltd with incorporation number 19758 was established on August 20, 1991 in Tanzania.

The present activities for the existing company Quality Foam Ltd include manufacture of polyurethane foam and processing to make final products such as mattresses of a variety of quality and furniture associated with foam.

Since its establishment in 1993, it has made several significant investments and for some investments it has availed following Investment Certificates

- IPC No. 040612 - 7 February 1994 – TShs 266,000,000/-
- TIC No. 040091 – 5 April 1998 – US \$ 780,000
- TIC No. 040380 - 12 October 2001 – TShs 440,500,000/-
- TIC No. 040380 (extended) – 27 April 2022 – US \$ 2,170,000

All the above investments have been implemented and the investments increasing with time implying all profit are being re-invested in the country. All the investments were made through IPC and TIC.

The company continues to operate well at their Mikocheni Light Industrial Area Plots 43 and 101. It is employing 190 staffs with additional 33 staffs for administration and management. The company also has 6 expatriate staffs on work permit, many dealing in technical operations.

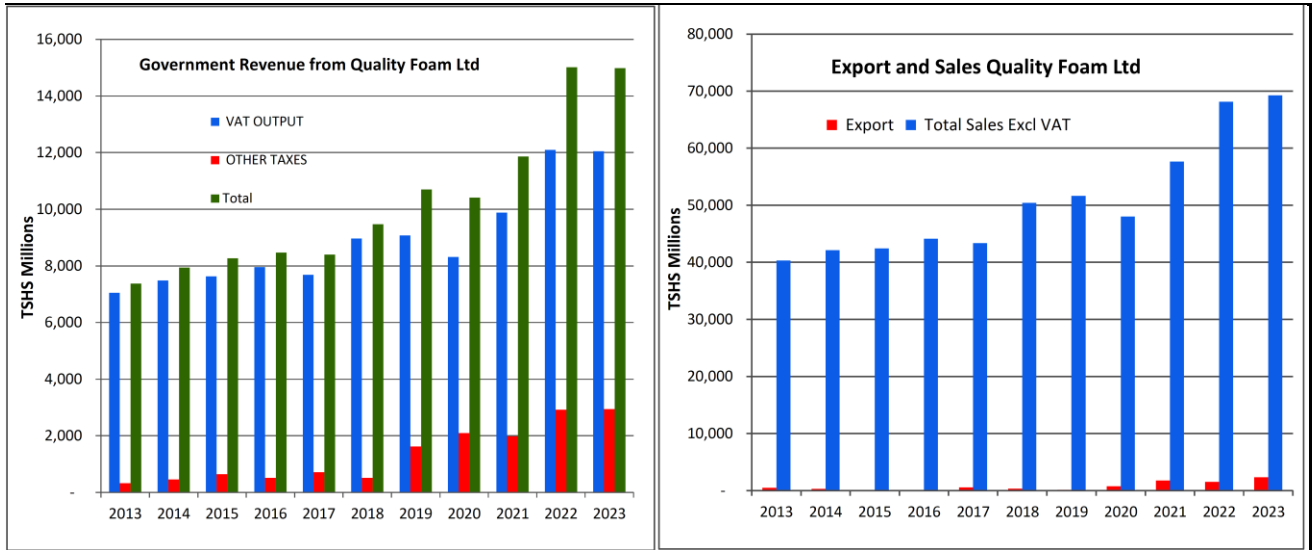
### 1.2 LAST 10 YEARS PERFORMANCE

The historic sales trend and taxes paid are given below, and they have been increasing mainly because of the investment made for additional plant, modern plant and additional buildings. In 10 years, sales increased by 71%, and average of 7% annually.

**Table 1 – Trend for Sales and Revenue to the Government between 2013 and 2023**

Year	TOTAL REVENUE FOR THE GOVERNMENT (TSHS)			Export & Sales (TSHS)	
	VAT OUTPUT	OTHER TAXES	Total	Export	Total Sales Excl VAT
2013	7,046,782,183	326,064,230	7,372,846,413	495,684,383	40,309,401,028
2014	7,484,971,009	459,324,582	7,944,295,591	292,918,301	42,124,611,553
2015	7,628,012,799	640,714,449	8,268,727,248	111,713,576	42,459,516,150
2016	7,958,528,675	509,865,977	8,468,394,652	40,385,488	44,138,750,225
2017	7,688,914,906	710,359,751	8,399,274,657	566,235,471	43,370,743,089
2018	8,965,127,644	508,280,690	9,473,408,335	345,158,374	50,409,225,928
2019	9,076,985,042	1,619,458,557	10,696,443,598	130,439,749	51,639,687,599
2020	8,315,484,957	2,098,221,547	10,413,706,504	764,713,958	48,045,560,420
2021	9,884,111,345	1,979,774,360	11,863,885,705	1,765,950,300	57,653,470,591
2022	12,099,438,877	2,918,585,946	15,018,024,823	1,524,158,677	68,159,752,812
2023	12,047,241,862	2,938,544,409	14,985,786,272	2,322,661,613	69,251,783,338
<b>Total</b>	<b>98,195,599,301</b>	<b>14,709,194,498</b>	<b>112,904,793,799</b>	<b>8,360,019,888</b>	<b>557,562,502,732</b>

**Chart 1 - Trend for Sales and Revenue to the Government between 2013 and 2023**



In the last 10 years, the annual Sales increased from TShs 40.3 Billion to TShs 69.2 Billion and this included export increasing from TShs 0.5 Billion to TShs 2.3 Billion. The government revenue in the form VAT and other taxes increased from TShs 7.4 Billion to TShs 15.0 Billion in 2023.

**1.3 OBJECTIVES FOR THE INVESTMENT**

Every investment made, resulted in significant increase in production and sales. The increase in sales and taxes was possible because of investment incentives offered by the government through Tanzania Investment Centre (TIC). There is continuing potential to increase production and sales. However, the present premises are fully developed leaving no room for any expansion. Other plots are required for future expansion and diversification.



With the expansion of economic trade blocks and harmonization between SADC, COMESA, EAC and ACFTA, and removal of trade barriers, the export market is bound to grow. The export proportion has already increased from 1.2% to 3.3% of sales.

The Company has therefore made a corporate decision to continue use its retained earnings as equity to make investment in expansion of the foam industry and prepare infrastructure for future diversification in manufacture of other fast moving consumer goods FMCG that will replace the costly importation. Quality Foam Ltd is therefore seeking another Investment Certificate that will include new land, new sets of buildings, new foaming line and associated machinery for manufacturing foam and converting it to mattresses and other foam products.

The business plan report for this investment covers :

- the project objective,
- background information regarding the investor's operations,
- details of investment costs (foreign and local expected capital expenditure),
- how the proposed investment will be financed - retained earnings as equity,
- project financial and economic analysis,
- sensitivity analysis
- market study,
- project capacity,
- production process if applicable,
- brief environmental impact assessment,
- expected employment generation,
- revenue generation for the government
- proposed implementation schedule,

## 2. MARKET

### 2.1 DEMAND FOR MATTRESSES AND FOAM MATERIALS

Foam mattresses demand is directly population related - every person needs to sleep on a comfortable mattress. So its demand is directly related to population growth rate – rural 2% and urban 4% - with an average of 2.5% annual growth rate for East Africa.

The mattresses average life is about 12 years, so every 12 years the present population replaces its mattresses – this creates an additional demand of about 8.5% annually. The total annual demand growth rate for mattresses is therefore about 11%.

### 2.2 PRESENT CAPACITY OF QUALITY FOAM

The company presently produces and sells about 5,400 tons per year of neat foam. This has resulted from a consistent annual increase of about 7% annually as stated in Section 1.2. This increase has come about in spite of having constraint of space in our present plots in Mikocheni Dar es salaam.

### 2.3 FUTURE MARKET SHARE

The present market share is allowing a 7% annual growth rate. With the new investment, there is a certainty to have an annual growth rate of 8.5% because of the new technology and efficient machinery to be deployed with lower losses and higher production capacity. There is also potential to increase the market share as discussed below.

Following manufacture foam mattresses in Tanzania and their corresponding market share (given in % in bracket) estimated on the basis of the population where they are located are given below :

- Quality Foam Ltd, Dar es slaam – QFL Magodoro Dodoma – 1991 ↔[25%]
- Vita Foam (T) Ltd, Dar es salaam, Pwani and Mwanza – Vita – 2001 ↔[20%]
- Tanfoam Ltd, Arusha ↔[10%]
- Hilltop Manufacturing & Trading, Kigoma – Supa Foam - 2022 ↔[5%]
- Ziwa Foam Ltd. Mwanza - Ziwa - 2023 ↔[5%]
- Pan African Enterprise Ltd, Dar es salaam – Comfy - 1974 ↔[10%]
- GSM Foam Co. Ltd, Dar es Salaam Arusha – GSM - 2020 ↔[5%]
- Polyfoam Ltd – Kisongo, Arusha ↔[5%]
- HMH Gulamali Group of Companies – Dodoma Asili ↔[5%]
- Monsu Plastfoam Ltd, Dar es salaam – Dolphin Comforter ↔[5%]
- G & B Soap Industries Ltd – Mbeya 2023 – Family Foam ↔[5%]
- TOTAL 100%

If Quality Foam Ltd does not mitigate the space constraint at their present Mikocheni premise, new players will come and fill the vacuum of supply in the market such as the new factories in Mbeya, Mwanza and Pwani.

This new investment will include better and modern machinery, more efficient, more speed and low in energy consumption. This will enable better products and cheaper products.

### 3. PROPOSED INVESTMENT

#### 3.1 PRESENT SITUATION

Currently in 2024, the factory located at Mikocheni has average production as follows :

- Average of 6 productions every week
- Average foam density – 23 kg/m<sup>3</sup>
- Each production - 110 minutes run – @ 210 kg/min – chemicals 23.0 ton – 500m long fresh foam – 405 blocks – 1,156 m<sup>3</sup>
- Each production cured foam produced – 21.2 tons – 405 blocks – 1,070 m<sup>3</sup>
- Average Numbers of Production Annually – 300
- Average Annual Gross Foam produced – 6,300 Tons
- Average Annual Neat Foam excluding waste – 5,400 Tons
- Average Cost of Manufacturing by weight – TShs 10,500/- (\$3.90) per kg of neat foam
- Average Sales Price by weight = TShs 12,500/- (\$4.63) per kg of neat foam
- Net Profit Before Tax – 19%
- Forecast – because premise is fully saturated - no room for expansion

#### 3.2 PROPOSED INVESTMENT

##### Objective

The objective of the proposed investment is to enable expansion of the foam factory on a new parcel of land at Saeni, Kibaha with a complete new set of modern plant and machinery. Another parcel of land at Mwanambaya, Kileleshwa, Tembeke will be developed for warehousing and stocking raw materials.

##### Investment

The new proposed investment comprises the following:

	Item	Quantity	Unit	Rate	Amount
<b>A</b>	<b>LAND</b>				<b>\$1,045,000</b>
1	Acquire Saeni, Kibaha	11.5	Acres		\$470,000
2	Acquire Mwanambaya, Kileleshwa	10.1	Acres		\$335,000
3	Secure Land				
a	Boundary Wall	895	M	\$150	\$135,000
b	Site Clearance and Earthwork	15,000	m3	\$7	\$105,000
<b>B</b>	<b>BUILDINGS</b>				<b>\$6,750,000</b>
1	Phase 1	15,000	Sqm	\$150	\$2,250,000
2	Phase 2	15,000	Sqm	\$150	\$2,250,000
3	Phase 3	15,000	Sqm	\$150	\$2,250,000
<b>C</b>	<b>PLANT &amp; MACHINERY</b>				<b>\$4,320,000</b>
1	Foaming Line	2	Sets	\$750,000	\$1,500,000
2	Batch Foaming HR/Visco I	1	Set	\$250,000	\$250,000
3	Polyol Tanks	3	Sets	\$60,000	\$180,000
4	Block Cutters	3	Sets	\$35,000	\$105,000
5	Long Slitter	1	Set	\$45,000	\$45,000
6	Carousals	3	Sets	\$40,000	\$120,000
7	Vertical Cutting Machine	2	Sets	\$12,000	\$24,000
8	Tape Edge machines	30	Sets	\$30,000	\$900,000
9	Quilting machines	2	Sets	\$110,000	\$220,000
10	Contour machine	1	Set	\$6,000	\$6,000
11	Foam Filling Machine	3	sets	\$30,000	\$90,000
12	Pillow Automatic Line	1	set	\$150,000	\$150,000
10	Re-bonding machine	1	Set	\$40,000	\$40,000
11	Mattress compression machine	3	Sets	\$20,000	\$60,000
12	Cover stitching machine	2	Sets	\$45,000	\$90,000
13	Mattress wearing machine	3	Sets	\$20,000	\$60,000
14	Siesta Sewing machine	8	Sets	\$2,500	\$20,000
15	Pedal stitching machine	6	Sets	\$2,500	\$15,000

16	Air Compressors	7	Sets	\$5,000	\$35,000
17	Chillers	2	Sets	\$15,000	\$30,000
18	Transformer & Switchgear	1	Set	\$100,000	\$100,000
19	Generator	1	Set	\$80,000	\$80,000
20	Fire Protection System – pumps, hydrants, hose reels, tanks	1	Set	\$100,000	\$100,000
21	Carpentry Workshop machines	1	Set	\$100,000	\$100,000
<b>D</b>	<b>RACKING SYSTEM</b> 6 Levels x 12 rows x 50m	3,600	M	\$1,000	<b>\$3,600,000</b>
	<b>SUB-TOTAL</b>				<b>\$15,715,000</b>
	Contingencies about 5%				\$785,000
	<b>TOTAL</b>				<b>\$16,500,000</b>

Investment summarized as follows all of which will be funded by equity :

- e) Land - acquire and secure – at Kibaha and Kisemvule - \$1,045,000
- f) Phased Building Development comprising pre-engineered steel structure including utilities :

2024/26 - 15,000 sqm @ \$150 = \$2,250,000

2026/28 - 15,000 sqm @ \$150 = \$2,250,000

2028/30 - 15,000 sqm @ \$150 = \$2,250,000

Total Buildings - \$6,750,000

- g) Plant & Machinery with Accessories - \$4,320,000

- h) Racking System - \$3,600,000

Sub-Total = \$15,715,000

Add Contingencies 5% - \$785,000 (Vehicles \$200,000, Furniture & Fititngs \$100,000, Pre-expenses \$100,000 and Others \$385,000)

Total - \$16,500,000

### **Cost Currency :**

All plant and racking system and the pre-engineered building will be in foreign currency amounting to - \$11,500,000 (70%). Land acquisition and building construction work will be in local currency amounting to US \$ 5,000,000 (30%).

### **Source of Funds :**

No loans will be taken. Retained earnings will be deployed as equity and the reason for spreading in several phases.

### **BENEFITS FROM THE NEW INVESTMENT**

The investment will provide following benefits summarized in table below :

#### **WITH AND WITHOUT PROJECT SCENARIO**

	PARAMETER	WITHOUT PROJECT	WITH PROJECT	INCREMENTAL INCREASE
1	Nrs of Production / week	6	12	6
2	Nrs of production / year	300	600	300
3	Production duration minutes daily	110	250	140
4	Length of foam daily	500 m	1500 m	1000 m
5	Nrs of Blocks daily	405	1220	815
6	Annual Foam Produced for Sale	5,400 tons	16,400 tons	10,900
7	Average Manufacturing cost	\$3.90 / kg	\$3.70 / kg	Saving \$0.20/kg
8	Average Sale Price	\$4.63 / kg	\$4.63 / kg	-
9	Investment	Nil	\$16,500,000	\$16,500,000
10	Sales Revenue @ \$4.63 per kg	\$25,000,000	\$75,000,000	\$50,000,000
11	Annual taxes paid to Government	TShs 15.0 billion	TShs 45.0 billion	TShs 30.0 billion
12	Profit before tax	18.7%	25.1%	+6.4%

#### 4. IMPLEMENTATION - PROGRAMME OF ACTIVITIES

The works will be carried out in phases.

- Phase 1 (2024-25) – Land Acquisition, Fence wall and Levelling - \$1,127,000
- Phase 2 (2024-26) - Building 1 - \$2,362,000
- Phase 3 (2026-28) - Building 2 - \$2,362,000
- Phase 4 (2028-30) – Building 3, Foaming Plant, Racking System - \$10,678,000
- The total Investment to be made will be about \$ 16,500,000.

The delivery of the plant is expected to take place in early 2030 after the plots are fully developed and equipped with utilities such electricity, water etc. The new investment will be fully operational by end of 2030 – Operational date 1<sup>st</sup> January 2031.

ACTIVITIES - PERIOD	2024	2025	2026	2027	2028	2029	2030	2031
<b>NEW ADDITIONAL INVESTMENT</b>								
<b>KISEMVULE PLOT – STORAGE &amp; LOGISTICS</b>								
AQUIRE LAND								
PHASE 1 BUILDINGS								
PHASE 2 BUILDINGS								
PHASE 3 BUILDINGS								
<b>KIBAHA PLOT – FOAM &amp; MATTRESS EXPANSION</b>								
AQUIRE LAND								
BOUNDARY WALL + EARTHWORK / LEVELLING								
EXTERNAL WORK, UTILITIES, FIRE FIGHT								
PHASE 1 – BUILDINGS								
PHASE 2 – BUILDINGS								
PHASE 3 – BUILDINGS								
PLANT & MACHINERY								
RACKING SYSTEM								

**5. ENVIRONMENTAL ISSUES AND MANAGEMENT**

**5.1 GENERAL**

Full Environmental Impact Assessment study will be carried out upon receiving the Investment Certificate for Tanzania Investment Centre. The study will fully conform to the requirements of National Environmental Management Council.

**5.2 ENVIRONMENTAL AND SOCIAL ISSUES**

**5.2.1 General**

The project does not have any irreversible and permanent negative impact. The factory process does not have negative impacts that cannot be mitigated. The temporary negative impacts during construction activities will be mitigated.

**5.2.2 Saeni – Kibaha Plot**



The foam mattress factory is proposed on this plot of 11 acres. The plot area is earmarked for heavy industries has a tarmac central road with electricity power line as services. Boreholes for water supply will have to be drilled.

**Foaming Process**

Polyurethane foam is formed from an exothermic reaction using two main chemicals, namely Polyol and TDI and with some catalysts. The foam formed is then cut into blocks of required sizes and allowed to cool known as curing. The cured blocks are cut into various thicknesses and width to form mattresses, which are subsequently covered with assorted fabrics, some plain and some quilted. The mattresses are covered with plastic transparent PVC films to preserve the mattresses from being soiled.

**Negative Impact**

The factory does not have any negative impacts that cannot be mitigated.

The land is free without occupation and therefore no involuntary resettlement will occur.

Machine noise are within threshold of 80 db and therefore not requiring workers to wear ear protection gear.

The foaming process is a dry process and does not generate any trade wastewater. However some 200 labour force will discharge domestic wastewater for which adequate toilet facilities discharging into septic tanks and soak-pits will be constructed.

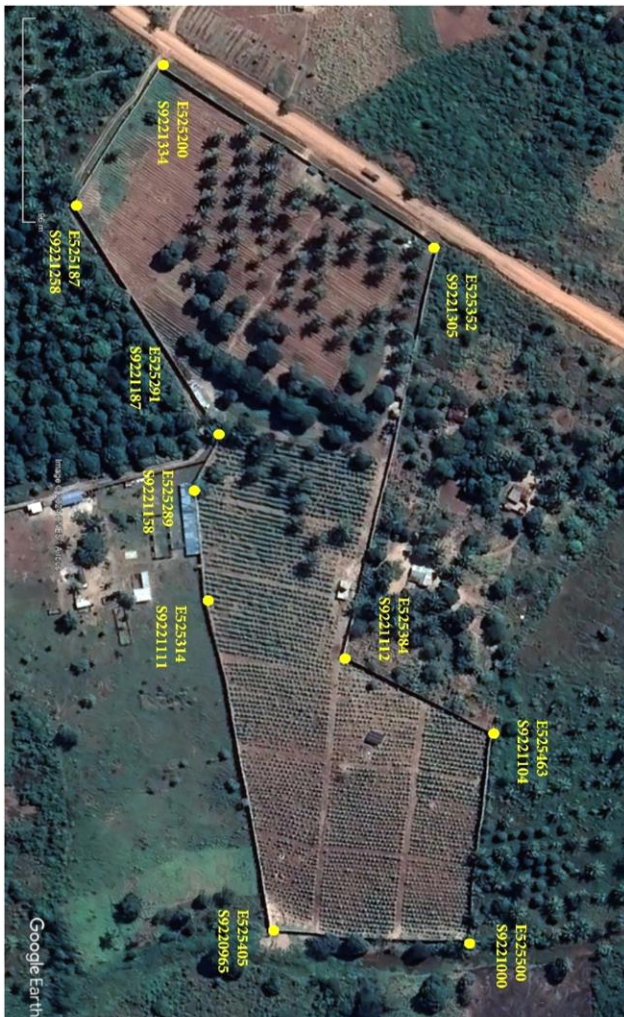
The foam cutting will generate foam wastes all of which are re-used or recycled to make furniture and smaller pieces are further crushed and pressed with chemicals to re-bond to make harder mattresses such as the orthopaedic mattresses.

The foaming process does not release any particulates. However the chemicals mixing and foaming is done in a tunnel so that the fumes that are generated, are vacuumed and exhausted out above the roof level.

**Positive Impact**

The project will create employment for more than 200 labour force who will be residents from the surrounding areas. The revenue in form of tax paid to the government is expected to be used for improvements in social services for Tanzanians.

**5.2.3 Mwanambaya - Kisemvule**



This plot will be earmarked light industrial area and is freehold and will not cause any involuntary relocation or resettlement.

The plot will be developed to have storage warehouses for chemicals and finished goods initially. In future, the building will be converted to be used as factory buildings for diverse manufacturing of fast-moving consumer goods such toothpaste, sanitary pads, cosmetics, hair products etc.

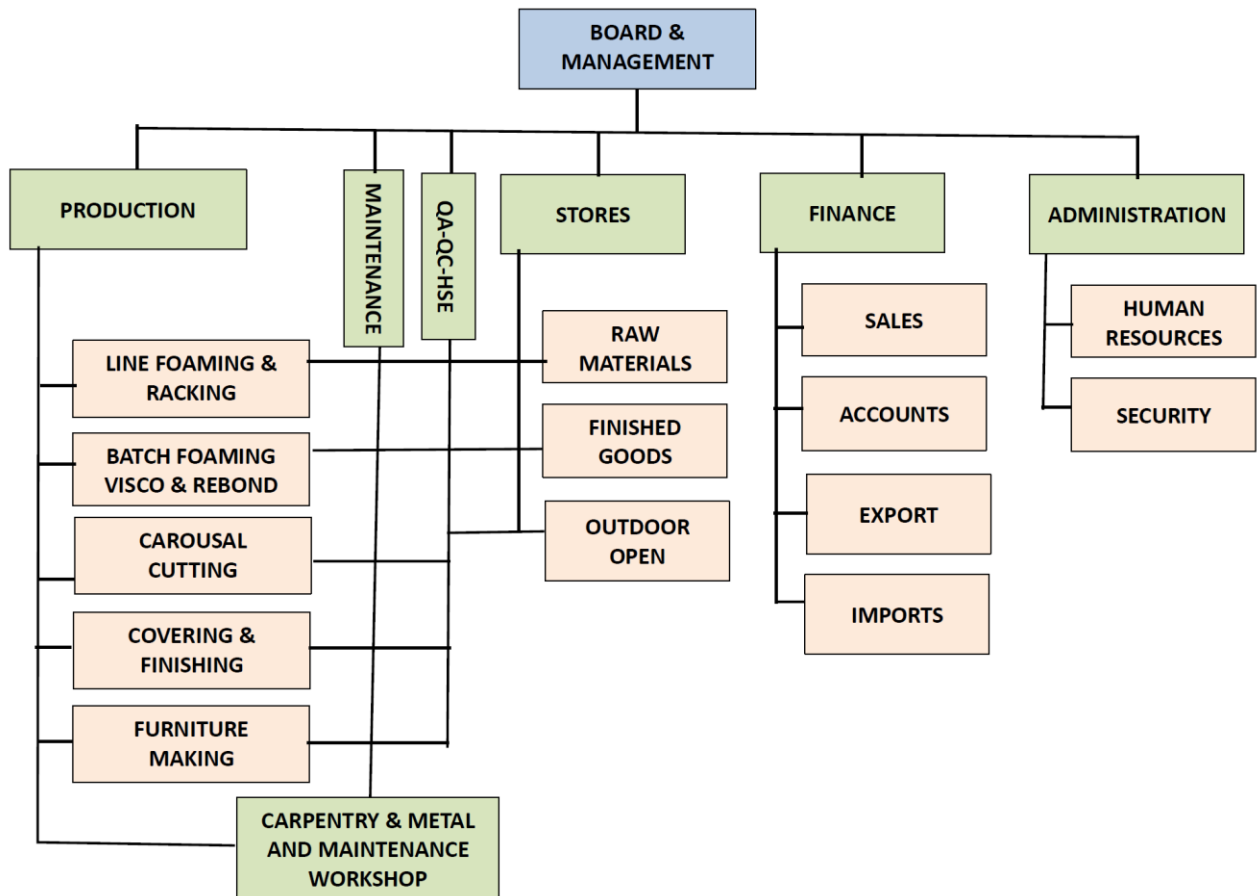
### 5.3 MONITORING AND COMPLIANCE

NEMC will evaluate the project's EIA Study report and its compliance with the applicable environmental and social requirements during the lifetime of the project by reviewing the annual monitoring reports (AMRs) prepared for the project covering: [(i) the status of implementation of any measures contained in the effluent and ambient test reports and (ii)] ongoing performance of project-specific environmental, health and safety [as reflected in the results of periodic and quantitative sampling and measuring programs.] Periodic site supervision visits will also be conducted.

**6. ORGANIZATION STRUCTURE AND STAFFING**

**6.1 ORGANIZATION SET UP AND STAFFING**

The present organization structure is shown in chart below. The company has about 200 labour force at the factory comprising production managers and supervisors and machine operators with skilled labour force for maintenance and unskilled labour force for moving around products. The company also has 33 staffs for administration and they include accounting and sales staffs, stores staffs and security staffs. Two key divisions include the Maintenance and another for Quality Control / Assurance and HSE (Health, Safety and Environment). Transport and logistic officers under sales include trucks and drivers. Marketing division also come under sales department.



The company also requires deploying of 6 expatriate staffs, most for technical operations but also in key management, accounting and data control.

For the new investment, the machinery capacity is larger than the present one at Mikocheni and it is estimated that while the organization structure will be similar as above, the staffing will be more in numbers.

Additional 240 nrs staffs will be required for the new investment as follows : Expatriate 8 nrs, Administrative - 22 nrs, Skilled labour – 70 nrs and Unskilled labour - 140 nrs.

## 7. FINANCIAL AND ECONOMIC ANALYSIS

### 7.1 INVESTMENT AND SOURCE

The investment of \$16,500,000 will be funded from retained earnings as equity and investment will be phased so that no loans will be necessary.

### 7.2 PRODUCTION CAPACITY

Curing storage increase from 405 blocks to 1500, a +370% increase.

Neat Foam for sale production increases from 5,400 tons/year to 16,400 tons/year – 300%.

After the investment is completed in the new premise, the production in the first year will be 3,250 tons and increasing annually at 8.5% rate, to 4,900 tons in Year 5, and 6,750 tons in Year 10, and 10,000 tons in Year 15, making the total between Mikocheni plot and Kibaha plot to a total of 16,400 tons/year.

The new premise at Kibaha will produce 6,750 tons/year by Year 2040 and will reach full capacity of 10,000 tons/year by Year 2045.

### 7.3 PROFIT MARGIN

Present profit margin averages as 18.7% between the last 3 years, in spite of being restrained at Mikocheni plot. With new modern, efficient and fast speed plant with low energy consumption, the profit margin is expected to be 25%.

The cost of production of mattresses will be \$3,700 per ton and selling price will be \$4,629 per ton.

### 7.4 INCREMENTAL FINANCIAL ANALYSIS

#### 7.4.1 General

Tables below show financial analysis for Incremental Profit & Loss Analyses, Incremental Cash Flow analysis and Discounted Cashflow Analyses for this investment over 15 years after the investment is completed in Year 2030.

It assumes production will increase 8.5% annually while the market share is maintained. The working capital required for two months will also increase annually for raw materials, creditor, debtors, works in progress and stock.

Profit margin of 25.1 is assumed.

Accelerated depreciation for 50% Capital Allowance is considered as the allowed incentives by TIC, and therefore no corporate taxes are payable until Year 2036, six years after operational date.

#### 7.4.2 Projected Incremental Profit & Loss Statement

The Profit & Loss table is summarised as follows showing increases from operational date 2031 to 2040:

Year	2031	2040
Sales	\$15,045,000	\$31,352,000
Net Profit after tax	\$3,450,000	\$4,710,000
VAT 18%	\$2,930,000	\$5,870,000
Corporate Tax	\$876,000	\$1,646,000
Total Taxes	\$3,806,000	\$7,516,000

The government revenue in form of corporate tax and VAT 18% is significant increasing from US \$ 3.8 million in 2031 to US \$ 7.5 million in 2040.

### 7.4.3 Project Incremental Cash Flow

There is always surplus and never deficit. During implementation, the surplus increases from \$0.3 million in Year 2025 to \$5.3 million in Year 2040, accumulating to US \$ 52.4 million.

### 7.4.4 Discounted Cashflow Analysis

The discounted cash flow analysis yields an Internal Rate of Return of 22.49% and this is good as it compares much higher than the real terms interest rate of 6% and inflation of 2%. The investment therefore is viable.

### 7.4.5 Sensitivity Analysis

Following sensitivity analysis were carried with reduced production and reduced profit margin.

Parameters	IRR	Comments
Profit 25.1% Annual Growth 8.5%	22.49%	Estimated
Profit 25.1% Annual Growth 5%	21.59%	Growth Reduced – Variable Costs
Profit 5.55% Annual Growth 5%	12.01%	Break-even with Cost of Capital

The lower growth rate does not affect the IRR because also the variable manufacturing costs reduce as well maintaining the IRR at a higher level. The IRR therefore is not sensitive to volume of sales.

For the IRR to lower to break-even point with the cost of capital of 12%, the profit margin has to reduce to 5.55%. This will never be the case. This demonstrates that the investment is robust and is not sensitive to profit margin nor volume of sales.

The investment therefore is viable.

**PROJECTED INCREMENTAL PROFIT & LOSS STATEMENT (US\$)**

		YEAR	2024 Base	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
INCREASE PRODUCTION CAPACITY UTILISATION		10,000 tons/YEAR	100%	0%	0%	0%	0%	0%	0%	0%	100%	109%	118%	128%	139%	150%	163%	177%	192%	208%
TOTAL PRODUCTION KIBAHA	FOAM	TONS/YEAR	3,250	0	0	0	0	0	0	0	3,250	3,526	3,826	4,151	4,504	4,887	5,302	5,753	6,242	6,773
INCREMENTAL INCREASE PRODUCTION	annual	8.50%	0	0	0	0	0	0	0	0	3,250	3,526	3,826	4,151	4,504	4,887	5,302	5,753	6,242	6,773
Manufacturing Cost (\$/ton)																				
Profit Margin	25.12%	\$/ ton																		
INCREMENTAL SALES REVENUE	Sale Price	4,629.30	-	-	-	-	-	-	-	-	15,045,225	16,324,069	17,711,615	19,217,102	20,850,556	22,622,853	24,545,796	26,632,188	28,895,924	31,352,078
OTHER INCOME - RENT FROM LEASE	\$ 3.50	30,000.00	sqm		315,000	630,000	945,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000	1,260,000
LESS																				
Investment		16,500,000		(1,100,000)	(1,420,000)	(1,420,000)	(1,420,000)	(1,420,000)	(5,720,000)	(4,000,000)										
INCREMENTAL MANUFACTURING COSTS	\$/tons	3,700.00	-	-	-	-	-	-	-	-	(12,025,000)	(13,047,125)	(14,156,131)	(15,359,402)	(16,664,951)	(18,081,472)	(19,618,397)	(21,285,961)	(23,095,267)	(25,058,365)
NORMAL DEPRECIATION	5%			(55,000)	(126,000)	(197,000)	(268,000)	(339,000)	(625,000)	(825,000)	(825,000)	(825,000)	(825,000)	(825,000)	(825,000)	(825,000)	(825,000)	(825,000)	(825,000)	(825,000)
INVESTMENT LOAN	0	0																		
Interest on loan	7.5%	0																		
GROSS PROFIT				- 260,000	504,000	748,000	992,000	921,000	635,000	3,455,225	3,711,944	3,990,484	4,292,701	4,620,605	4,976,382	5,362,399	5,781,228	6,235,657	6,728,713	
LESS CORPORATE TAX	30%			(78,000)	(151,200)	(224,400)	(297,600)	(276,300)	(190,500)	(1,036,568)	(1,113,583)	(1,197,145)	(1,287,810)	(1,386,182)	(1,492,914)	(1,608,720)	(1,734,368)	(1,870,697)	(2,018,614)	
50% CAPITAL ALLOWANCE	50%	8,250,000		78,000	151,200	224,400	297,600	276,300	190,500	1,036,568	1,113,583	1,197,145	1,287,810	1,386,182	1,010,712					
NET PROFIT				- 260,000	504,000	748,000	992,000	921,000	635,000	3,455,225	3,711,944	3,990,484	4,292,701	4,620,605	4,494,179	3,753,679	4,046,860	4,364,960	4,710,099	
CUMULATIVE RESERVE				- 260,000	764,000	1,512,000	2,504,000	3,425,000	4,060,000											
VAT	18%										2,934,941	3,165,132	3,414,891	3,685,878	3,979,900	4,298,914	4,645,043	5,020,594	5,428,066	5,870,174

**PROJECTED INCREMENTAL CASHFLOW (US\$)**

YEAR	2024 Base	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
INCREASE PRODUCTION CAPACITY UTILISATION	100%	0%	0%	0%	0%	0%	0%	0%	100%	109%	118%	128%	139%	150%	163%	177%	192%	208%
INFLOWS																		
Loan		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Equity		1,100,000	1,420,000	1,420,000	1,420,000	1,420,000	5,720,000	4,000,000	0	0	0	0	0	0	0	0	0	0
50% Capital Allowance / Accelerated Depreciation			- 78,000	151,200	224,400	297,600	276,300	190,500	1,036,568	1,113,583	1,197,145	1,287,810	1,386,182	1,010,712				
Normal Depreciation			- 55,000	126,000	197,000	268,000	339,000	625,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000
Pretax Profit			- 260,000	504,000	748,000	992,000	921,000	635,000	3,455,225	3,711,944	3,990,484	4,292,701	4,620,605	4,976,382	5,362,399	5,781,228	6,235,657	6,728,713
TOTAL INFLOWS		1,100,000	1,813,000	2,201,200	2,589,400	2,977,600	7,256,300	5,450,500	5,316,793	5,650,527	6,012,630	6,405,511	6,831,787	6,812,094	6,187,399	6,606,228	7,060,657	7,553,713
OUTFLOWS																		
Investments		1,100,000	1,420,000	1,420,000	1,420,000	1,420,000	5,720,000	4,000,000	0	0	0	0	0	0	0	0	0	0
Working Capital Increase			0	0	0	0	0	0	1,402,917	119,248	129,384	140,382	152,314	165,261	179,308	194,549	211,086	229,028
Corporate Tax			- 78,000	151,200	224,400	297,600	276,300	190,500	1,036,568	1,113,583	1,197,145	1,287,810	1,386,182	1,492,914	1,608,720	1,734,368	1,870,697	2,018,614
Loan & Interest Repayment																		
TOTAL OUTFLOWS		1,100,000	1,498,000	1,571,200	1,644,400	1,717,600	5,996,300	4,190,500	2,439,484	1,232,831	1,326,529	1,428,192	1,538,496	1,658,175	1,788,028	1,928,917	2,081,783	2,247,642
SURPLUS			- 315,000	630,000	945,000	1,260,000	1,260,000	1,260,000	2,877,308	4,417,696	4,686,100	4,977,319	5,293,291	5,153,919	4,399,371	4,677,310	4,978,874	5,306,071
CUMULATIVE CASHFLOW			- 315,000	945,000	1,890,000	3,150,000	4,410,000	5,670,000	8,547,308	12,965,005	17,651,105	22,628,424	27,921,715	33,075,633	37,475,005	42,152,315	47,131,189	52,437,261

**PROJECTED DISCOUNTED CASHFLOW ANALYSIS (US \$)**

YEAR	2024 Base	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
PRODUCTION CAPACITY UTILISATION		0%	0%	0%	0%	0%	0%	0%	100%	109%	118%	128%	139%	150%	163%	177%	192%	208%
<b>INFLOWS</b>																		
Pretax Profit		0	260,000	504,000	748,000	992,000	921,000	635,000	3,455,225	3,711,944	3,990,484	4,292,701	4,620,605	4,976,382	5,362,399	5,781,228	6,235,657	6,728,713
50% Capital Allowance / Accelerated Depreciation		0	78,000	151,200	224,400	297,600	276,300	190,500	1,036,568	1,113,583	1,197,145	1,287,810	1,386,182	1,010,712	0	0	0	0
Normal Depreciation		0	55,000	126,000	197,000	268,000	339,000	625,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000	825,000
Loan Repayment					0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salvage Value of Assets																		6,640,000
Recovery of Working Capital																		
<b>TOTAL INFLOWS</b>		<b>0</b>	<b>393,000</b>	<b>781,200</b>	<b>1,169,400</b>	<b>1,557,600</b>	<b>1,536,300</b>	<b>1,450,500</b>	<b>5,316,793</b>	<b>5,650,527</b>	<b>6,012,630</b>	<b>6,405,511</b>	<b>6,831,787</b>	<b>6,812,094</b>	<b>6,187,399</b>	<b>6,606,228</b>	<b>7,060,657</b>	<b>14,193,713</b>
<b>OUTFLOWS</b>																		
Investments		1,100,000	1,420,000	1,420,000	1,420,000	1,420,000	5,720,000	4,000,000										
Working Capital Increase		0	0	0	0	0	0	0	1,402,917	119,248	129,384	140,382	152,314	165,261	179,308	194,549	211,086	229,028
Corporate Tax		0	78,000	151,200	224,400	297,600	276,300	190,500	1,036,568	1,113,583	1,197,145	1,287,810	1,386,182	1,492,914	1,608,720	1,734,368	1,870,697	2,018,614
<b>TOTAL OUTFLOWS</b>		<b>1,100,000</b>	<b>1,498,000</b>	<b>1,571,200</b>	<b>1,644,400</b>	<b>1,717,600</b>	<b>5,996,300</b>	<b>4,190,500</b>	<b>2,439,484</b>	<b>1,232,831</b>	<b>1,326,529</b>	<b>1,428,192</b>	<b>1,538,496</b>	<b>1,658,175</b>	<b>1,788,028</b>	<b>1,928,917</b>	<b>2,081,783</b>	<b>2,247,642</b>
<b>NET CASHFLOW</b>		<b>(1,100,000)</b>	<b>(1,105,000)</b>	<b>(790,000)</b>	<b>(475,000)</b>	<b>(160,000)</b>	<b>(4,460,000)</b>	<b>(2,740,000)</b>	<b>2,877,308</b>	<b>4,417,696</b>	<b>4,686,100</b>	<b>4,977,319</b>	<b>5,293,291</b>	<b>5,153,919</b>	<b>4,399,371</b>	<b>4,677,310</b>	<b>4,978,874</b>	<b>11,946,071</b>

**INTERNAL RATE OF RETURN IRR 22.49%**

\*

## **7.5 NATIONAL ECONOMIC BENEFITS**

The project results in many national economic benefits. Apart from providing employment to 240 directly in the factory, the project will generate other indirect employment in the transportation sector and other sectors, which is estimated to be more than 5,000 people.

As the supply of the product will be in plenty and of variety of quality and prices, it will be affordable also by the rural and low income population.

The project will also increase export to East African countries, especially Zambia, Malawi and DR Congo and will earn foreign exchange for the country.

Most importantly, the project will also generate revenue for the Government in form of 10% duty on some raw materials, 18% VAT and 30% cas discussed earlier.

## **7.6 CONCLUSION**

The investment is viable, increasing revenue for the government and creating employment.



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