

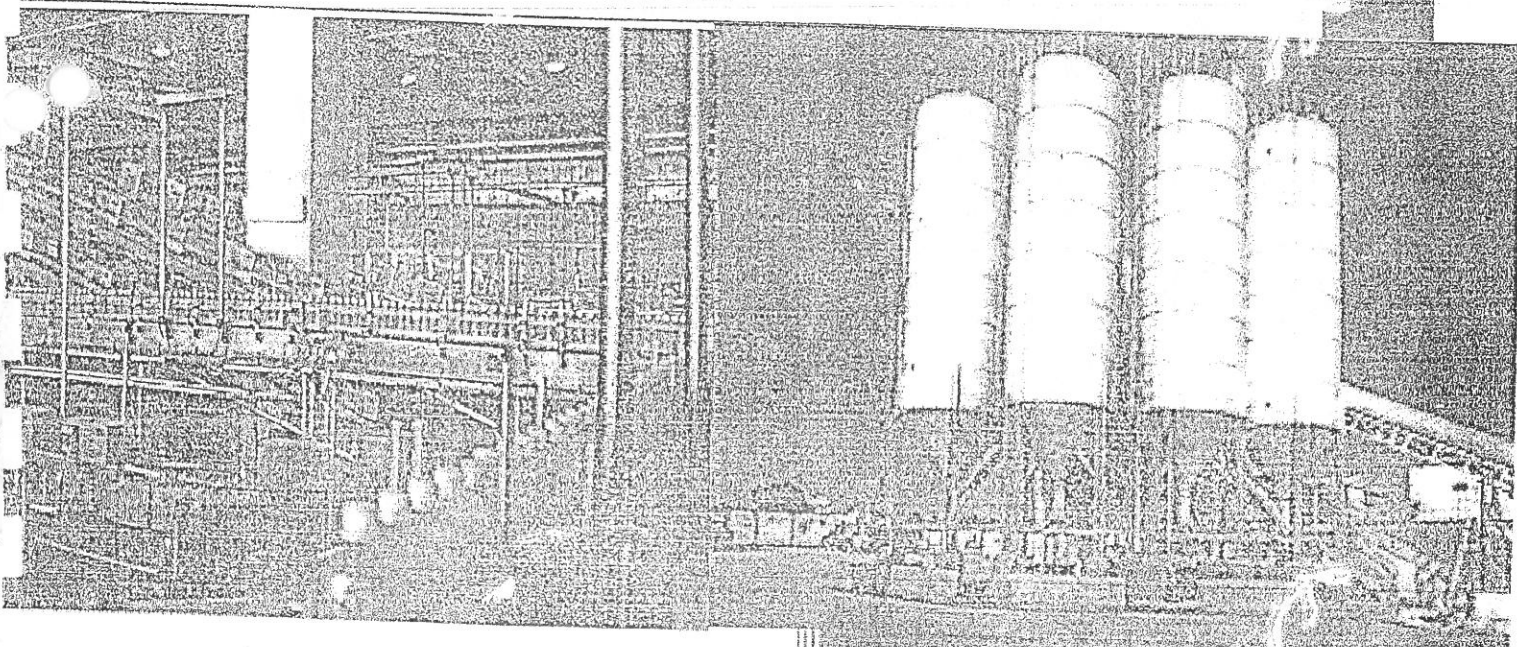
# DARWORTH COMPANY LIMITED

DARWORTH

Bavaria



JUICE AND MAIZE MILL FACTORIES AT MICHUNGWANI AREA IN  
HANDENI DISTRICT COUNCIL, MICHUNGWANI AREA IN TANGA  
REGION



BUSINESS PLAN

December, 2017

## 1. Executive Summary

### 1.1 Introduction

**DarWorth Limited** was established in 1994. It was formally known as **3M Tanzania Limited**. The company deals with different lines of businesses, including supply of office stationery, provision of Information and Communication and Telecommunication (ICT) technologies solutions, furniture making (through its subsidiary company, Imara Holdings based in Moshi, Kilimanjaro), home appliances (distribution of renown brands of products such as Syinix, Beko, and sole distributor of Bavaria drinks in Tanzania. The company is also visible in hospitality industry – it operates Nyumbani Hotels and Resorts in Tanga City and Moshi Municipality.

Currently the company has acquired a piece of land which is located at Michungwa 1 – (near Segera, Chalinze, Tanga) for the purpose of investing in juice making and maize mill factories. Accordingly, a total of 10 acres of land has been acquired from Handeni District Council for such purpose.

This plan presents analysis of the proposed investments. This analysis starts with the general outlook of the economy of Tanzania, and the current environment supporting investments in industries. It then focuses on food processing subsector, specifically, maize and fruits processing. Thereafter, a detailed analysis of supply and demand of the maize and fruit juice products is presented. Further, management aspects of the proposed investments are analyzed. This includes procurement of raw materials, human resources, operations, marketing and distribution, and financing. Finally, a detailed analysis of financial viability of the proposed investments is presented.

Since there are two different investment proposals, this document is divided into three parts. The first part contains the description of the project promoter, the macro economic analysis, socio economic profile of the project area, and technical feasibility of the proposed project site. The second and third parts of the document are presented as annexes. Annex A presents a detailed plan for the fruit juice processing plant and Annex B presents a detailed plan for the maize milling plant.

### 1.2 About the Projects

The envisaged projects follow the economic and social opportunities that are currently available. The chosen project site presents an opportunity of procuring raw materials from farmers located near and around the project area. There are also opportunities to engage farmers in contract farming in order for them to produce inputs of the required quality. The project site is located near the Chalinze-Segera highway, making it easy to transport raw materials and finished products. At the national level, there is a strong drive to promote industrialisation. The industrialization agenda is a priority in the current

Government and this was enunciated by His Excellence Dr. John P. Magufuli, President of the United Republic of Tanzania in his inauguration speech to Parliament on 20th November, 2015. Accordingly, the Regional and District officials from Tanga region are indeed in support of these two projects.

**2.1. Fruit processing:** The fruit processing plant will use either fresh fruits from the farmers in the project area or juice concentrate procured locally or from outside the country. The company proposes to introduce two brands of fruit juice in the market. The first brand will target the mass market. This brand will compete with other juice manufacturers targeting the mass market. The second brand will be a premium brand comprising of well-selected flavours and blends of fruits. Raw materials for this brand will be procured locally from farmers. Fruits used for the premium brand need to be of high quality, hence a need to build capacity for farmers to produce the required quality of fruits. This is expected to be done after gaining experience in the market. Expected production capacity per hour is 30,000 litres on 8 hours shift per day. The company is expected to use its experience in marketing and distribution of the Bavaria drinks in the marketing and distribution of the juice.

**2.2. Maize mill** will have the capacity to produce 64 tons in 8 hours shift. It will include purchasing maize from Tanga region. Tanga is one of the main suppliers of maize in Tanzania and it has potential for growth – due to the availability of arable land. The company will package the products in various sizes to meet the requirements of the customers. Maize flour is the staple food for a majority of Tanzanians. The maize mill will be equipped with state of the art technology for sorting, milling, and packaging maize flour. The company intends to manufacture *Dona* (which is based on non-husked maize) and *Sembe* which is based on husked maize. The production proportion of *Sembe* and *Dona* will be 30% and 20% of the installed capacity respectively. The company will also take advantage of opportunities to supply maize flour to institutional buyers such as the World Food Programme (WFP). Neighbouring countries such as Kenya present a lucrative market for maize flour. The project site is located only 200 km from the Kenyan border. To undertake this, the company plans to install Silos with capacity to store 4,000 tons of maize, with 500 tons replenishment capacity monthly.

### **1.3 Location Details and Management**

Both factories will be located in the proposed project site at Michungwani area. The project site has an area of 10 acres. The site will be divided to accommodate the needs of the two factories. The management of the two factories will be under an independent company. It will have its own board of directors, management and employees. Plant managers will be responsible for overseeing daily operations of the two factories.

The promoter for the business is Darworth Company Limited under the leadership of John C. Kessy. John (52 years). Mr. Kessy is a seasoned businessman who manages Darworth Limited. Darworth has a diversified business portfolio dealing with household

appliances, office equipment and stationery, ICT equipment, furniture, beverage distribution and hotels.

#### 1.4 Investment Required and Financing Aspects

The investment required for the company is as follows:

##### Juice Factory

Total Project will cost TZS 7,509,054,750.00, 7,029,054,750.00 is earmarked for capital investment (land and buildings, plant and machinery) and TZS 600 million for working capital. It is expected that 32% (TZS 2,391,933,142.50) will be financed by the promoter and various other equity sources. The remaining part will be financed by debt from financial institutions, pledged at 16% interest rate, quarterly payment with 1 year grace period. For this project, the weighted average cost of capital (WACC) is 16.64% with 200 basis points on the return for the shareholders based on the loan rate. The project is expected to yield 19.2% Return on Assets in Year I, 22.5% in Year II and 23.4% in year II. The Return on Capital will be 27.7% in Year I and 29.0% in Year II. The NPV for the project is positive. The IRR for the base case scenario is 39%. Sensitivity analysis shows that, even for a net income decrease of 40%, the IRR is 21%, a value higher than the minimum required rate of return for shareholders. The project profitability depends very much on the sales volumes and price; therefore, appropriate strategies need to be employed in order to realise the sales targets.

**Table 1: Summary of the Financial Results from Juice Plant**

	<u>2018/19</u>	<u>2019/20</u>	<u>2020/21</u>	<u>2021/22</u>	<u>2022/23</u>
<b>Summary</b>					
<b>Financials (TZS)</b>					
Revenue	7,205,493,120	8,086,740,180	9,330,854,400	10,838,784,621	12,272,731,152
Gross Profit	3,975,344,709	4,568,193,861	4,958,327,685	5,340,429,737	6,185,138,628
EBIT	2,673,671,201	3,239,224,061	3,577,590,346	3,899,029,339	4,684,150,443
EBITDA	3,507,631,676	4,073,184,536	4,411,550,821	4,732,689,814	5,517,810,918
Net Earnings	1,482,051,481	1,813,018,757	2,153,746,719	2,482,625,577	3,136,081,912
Net Cash from Operating Activities	1,897,989,579	2,612,144,042	2,918,036,815	3,198,781,296	3,381,920,084
Capital Expenditures	6,054,054,750	0	0	290,000,000	0
Interest	(556,454,799)	(649,197,266)	(500,809,319)	(352,421,373)	(204,033,426)
Income/(Expense)	0	0	0	0	0
Dividends	0	0	0	0	0
Cash	1,897,989,679	3,007,140,557	4,897,752,707	6,679,109,338	9,133,604,757
Total Equity	3,873,982,006	5,687,001,663	7,840,748,382	10,323,373,959	13,459,455,871

	2018/19	2019/20	2020/21	2021/22	2022/23
Total Debt	4,637,123,325	4,405,267,159	3,477,842,494	2,550,417,829	1,622,993,164
<b>Growth</b>					
Revenue Growth Rate - CAGR:		12%	15%	16%	13%
Net Earnings Growth Rate - CAGR:		22.3%	18.8%	15.3%	26.3%
<b>Ratios</b>					
Current Ratio	2.8	2.1	3.4	5.0	7.4
Debt to Capital (LT Debt + Equity)	0.5	0.4	0.3	0.2	0.1
<b>Profitability</b>					
Gross Profit %	55.2%	56.5%	53.1%	49.3%	50.4%
Operating Expenses %	17.4%	15.9%	14.4%	12.9%	11.9%
Net Earnings %	-0.6%	22.4%	23.1%	22.9%	25.5%
<b>Returns</b>					
Return on Assets	19.2%	22.5%	23.4%	23.4%	24.4%
Return on Equity	27.7%	29.0%	25.6%	22.8%	22.4%
Return on Capital (LT Debt + Equity)	14.8%	17.0%	18.1%	18.5%	20.1%

### Maize Mill Factory

Maize mill is estimated to cost TZS 4,594,779,600.00, 2,637,779,600.00 is earmarked for capital investment (plant and machinery) and TZS 1,957,500,000 for working capital requirements – purchase of maize. It is expected that 31% (TZS 1,412,695,920.00) will be financed by the promoter/equity finance arrangement, while the rest of the financing will be obtained from a financial institution at an interest rate of 16%, quarterly payment with six months grace period. For this project, the weighted average cost of capital is 16.61% with 200 basis points on the return for the shareholders based on the loan rate. The project is expected to yield 4.1% Return on Assets in Year I, 11.2% in Year II and 18.5% in year II which Return on Capital 8.3% in Year I and 20.2% in Year II and 26.9% in year II. The NPV for the project is positive. The base case scenario IRR is 21%. Sensitivity analysis shows that, a decrease of 10% in net income will result in IRR of 19%-other factors remaining constant. This project seems to more sensitivity to fluctuations compared to the juice factory. The variations in prices of maize –affected by level of harvest depend on prevailing weather, farm management and other factors, will cause variations in the NPV and IRR of the project.

**Table 2: Summary of the Financial Results from Maize Mill Factory**

	<u>2018/19</u>	<u>2019/20</u>	<u>2020/21</u>	<u>2021/22</u>	<u>2022/23</u>
<b>Summary Financials (TZS)</b>					
Revenue	9,975,077,100	11,504,533,700	12,645,621,104	14,696,834,697	17,038,075,137
Gross Profit	1,273,833,676	1,476,928,236	1,735,101,096	2,328,961,388	3,404,188,413
EBIT	576,017,766	728,816,236	916,814,584	1,479,224,810	2,447,444,256
EBITDA	752,930,284	922,395,420	1,047,960,435	1,610,370,661	2,641,023,440
Net Earnings	128,262,416	389,780,476	709,348,338	1,569,204,022	2,887,285,713
Net Cash from Operating Activities	(644,617,774)	437,730,036	731,843,751	1,505,040,333	1,457,021,462
Capital Expenditures	0	50,000,000	0	0	50,000,000
Interest Income/(Expense)	(469,681,233)	(420,135,459)	(361,434,615)	(260,839,536)	(213,349,035)
Dividends	0	0	0	0	0
Cash	74,816,462	355,786,185	683,337,353	1,449,384,260	2,576,817,215
Total Equity	1,540,958,336	1,930,738,811	2,640,087,149	4,209,291,171	7,096,576,884
Total Debt	1,399,213,836	1,049,953,524	845,660,941	606,667,514	327,079,007

#### Growth

Revenue Growth Rate - CAGR:		15%	10%	16%	16%
Net Earnings Growth Rate - CAGR:		203.9%	82.0%	121.2%	84.0%

#### Ratios

Current Ratio	0.5	0.6	0.9	1.4	3.0
Debt to Capital (LT Debt + Equity)	0.5	0.4	0.3	0.1	0.0

#### Profitability

Gross Profit %	12.8%	12.8%	13.7%	15.8%	20.0%
Operating Expenses %	6.3%	6.0%	6.0%	5.4%	5.2%
Net Earnings %	1.3%	3.4%	5.6%	10.7%	16.9%

#### Returns

Return on Assets	4.1%	11.2%	18.5%	33.2%	39.0%
Return on Equity	8.3%	20.2%	26.9%	37.3%	40.7%
Return on Capital (LT Debt + Equity)	4.4%	12.9%	20.1%	32.3%	40.7%

The two projects will require investment of TZS 11,792,334,350. The financing will comprise of a mixture of debt and equity. The minimum equity investment is expected to be 31% of the total investment. This investment plan is subject to change depending on the availability of financing vehicles. Projects such as this one attracts financing from development banks-whose interest rate are much lower compared to commercial banks. The project may also attract financing from EXIM banks-banks supporting purchase of equipment and machinery from the exporter countries.

### 1.5 Summary of the Expected Results

The following outcomes are expected on implementation of this project:

- Direct employment to about 150 people- a majority of which will be women. Over half of the employees will be professionals in various fields such as Accounting, finance, agriculture, production operations, etc.
- Indirect employment to people in the maize and fruit juice value chain. Employment will be created for casual laborers at the factory site and at wholesale centres. Additionally, indirect employment will be created for farm workers, extension officers, transporters, etc.
- Contribute to the industrial development drive of the government-especially in the food processing sub sector
- Contribute to the economic development of Tanga region and the nation. Current statistics show that Handeni district has the least Gross Domestic Product (GDP) contribution compared to other districts in Tanga region. This project is expected to increase Handeni GDP and thereby increase Handeni district contribution to the national economy.

## 1.6 PROMOTER INFORMATION

### 1.6.1 Background

**Darworth Limited** was established in 1994, it was formally known as **3M Tanzania Limited**. The company deals with different lines of businesses. These are:

- **Office Stationery**- distributors of well-known brands such as Mondi and Centrum;
- **Information Technology solutions**- Sells different brands of IT equipment and accessories;
- **Furniture**- makes and sells home and office furniture;
- **Home appliances**- distributors of well-known brands of home appliances
- **Telecommunication infrastructure**- sells LAN/WAN network products, and wireless communication products and Security systems installation;
- **Hospitality industry**- the company operates Nyumbani Hotels and Resort in Tanga Municipality.

### 1.6.2 Business Operations

The company imports office stationery, IT equipment, and home appliances. The company distributes these products in different markets within the country and in the East Africa region. The company sells products in Kenya, Uganda, Democratic Republic of Congo, Burundi, Zambia and Rwanda.

The company also owns a furniture factory, IMARA Furniture, which is located in Moshi Municipality. This factory makes high quality hard wood furniture for home and office use. The company has extensive distribution of networks for its products. In addition, the company also operates Nyumbani Hotels based in Kilimanjaro and Tanga regions. For example, it has hotel facilities under the name **Nyumbani Hotels** in Moshi Municipality, Marangu area, and Tanga City.

### 1.6.3 Company Address, Management and Licenses and other Details

The company Head Office is at the following address

Darworth House  
 4<sup>th</sup> Floor, Plot 22, Myerere Road,  
 Opposite Shoprite- Kamata  
 P.O Box 70339  
 Dar es Salaam  
 Phone: +255 22 2112394/2121382  
 Fax: +255 22 2127441/2112394  
 Email: [info@darworth.com](mailto:info@darworth.com)

### 1.6.4 Company Performance Analysis

The company financial performance for the 2016 and 2017 is presented below.

**Table 3: Statement of Comprehensive Income**

	2015	2016
<b>Income</b>		
Cost of Sale	14,726,030,014	10,598,568,319
Direct Cost	12,454,047,665	9,224,654,034
<b>Gross Profit</b>	<b>2,271,982,349</b>	<b>1,373,914,285</b>
Expenditure		
Employment	552,948,409	680,014,422
Establishment	232,803,803	269,945,291
Administration	395,306,205	232,498,336
Selling and Advertising	21,833,685	9,155,856
Financial	631,954,686	135,830,689
<b>Total Expenses</b>	<b>1,834,846,788</b>	<b>1,327,444,594</b>
<b>Net Profit/Loss before tax</b>	<b>437,135,561</b>	<b>46,469,691</b>
Income Tax Expense	247,869,441	17,011,257
<b>Net Profit/Loss after tax</b>	<b>189,266,120</b>	<b>29,458,434</b>

**Table 4: Statement of Financial position**

ASSETS	2015	2016
Non-Current Assets		
Property, Plant, Equipment	3,407,382,696	4,959,404,187
Investment	418,225,000	418,225,000
<b>Total Non-Current Assets</b>	<b>3,825,607,696</b>	<b>5,377,629,187</b>
Current Assets		
Bank and Cash		
Debtors	3,923,798,344	373,496,755
Taxation	2,880,968,488	4,756,599,932
Stock	114,516,887	128,963,359
<b>Total Current Assets</b>	<b>3,250,715,450</b>	<b>3,998,563,757</b>
<b>Total Assets</b>	<b>10,169,999,169</b>	<b>9,257,623,803</b>
	<b>13,995,606,865</b>	<b>14,635,252,990</b>
<b>EQUITY AND LIABILITIES</b>		
Capital and Reserves		
Authorised Share Capital: 100,000@10,000	1,000,000,000	
Issued and fully paid up shares: 10,000@10,000	100,000,000	2,549,465,600
Revaluation surplus	1,531,797,503	1,531,797,503
Advance towards share capital	2,449,465,600	-
Reserve and surplus (Profit and Loss Account)	(265,830,098)	(236,371,664)
	<b>3,815,433,005</b>	<b>3,844,891,439</b>
Current Liabilities		
Bank Overdraft		
Creditors	10,180,173,860	428,902,126
<b>Total Liabilities</b>	<b>-</b>	<b>10,361,459,425</b>
<b>Total Equity and Liabilities</b>	<b>10,180,173,860</b>	<b>10,790,361,551</b>
	<b>13,995,606,865</b>	<b>14,635,252,990</b>

**Table 5: Selected ratios**

	2016	2017
<b>Growth</b>		
Revenue Growth Rate - CAGR:		(0.28)
Net Earnings Growth Rate - CAGR:		(0.84)
<b>Liquidity</b>		

Current Ratio	0.999	0.858
Debt to Capital (LT Debt + Equity)	0.727	0.737
<b>Profitability</b>		
Gross Profit %	15.43%	12.96%
Operating Expenses %	12.46%	12.52%
Net Earnings %	1.29%	0.28%
<b>Returns</b>		
Return on Assets	1.35%	0.20%
Return on Equity	4.96%	0.77%

Darworth experience a decline in revenues and profitability for the year 2017 compared to the year 2016. Despite of this decline other financial indicators are good. The company liquidity is good. The current ratio was 1 in 2016 and 0.85 in 2017. The debt to capital ratio of 0.73 is good for a company of its size and nature of business. The gross profit margin was 15,5% and 12.96% in 2016 and 2017 respectively. Operating expenses as a percentage of revenues range from 12,46% in 2016 to 12.52 in 2017. The company generated a return on assets of 1.35% in 2016 and 0.2% in 2017. The return to shareholders was 4.96% in 2016 and 0.77% in 2017.

### 1.7 Proposed Project

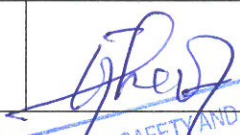
The company wants to venture into food processing. Particularly, the company wants to set up two factories in Tanga region. One factory will have storage and milling facilities for maize, and the other factory will be processing orange juice. The company has already secured a place at Michungwani area in Korogwe district where the factories will be located.

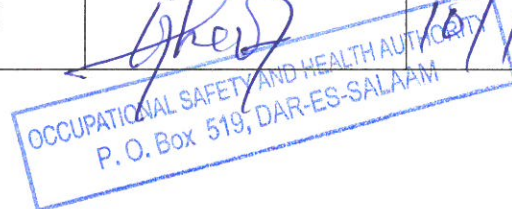
#### 4. GENERAL RECOMMENDATIONS FOR THE SAFETY ASPECT.

- ❖ Prepare and submit site arrangement layout plan prior to mobilization.
- ❖ Make sure submitted drawing are well titled and numbered. (ALL DRAWING ARE TITLED WORKING DRAWINGS), and have no number.
- ❖ Provide assembling point(s) and should be accessible by potential rescue team.
- ❖ Plan and facilities for firefighting should be considered.
- ❖ Toilets rooms should be adequate as per number of employees.
- ❖ Provide accommodation for clothing (changing room) for employees.
- ❖ Ensure parking points are not obstructive to emergence escape route and firefighting facilities.

In accordance to Section 21 of OHS Act No 5 of 2003;

1. Every person who intends to construct a factory or workplace or building appurtenant to a factory or workplace or to alter or add to any existing factory or workplace building shall, submit drawings in blue prints or white prints of intended premises to the Chief Inspector for approval.
2. The drawings shall depict, vertical sections and elevations; machinery layout plan inscribed in plan showing production process flow, electrical installation, sewage disposal, emergency exits, fire protection plans and adequate sanitary and welfare facilities to the maximum number of intended workers in each shift.

NAME OF INSPECTOR	TITLE	SIGNATURE	DATE
Eng. THEOPHIL MLUNGWA	BCI		10/12/2019



## **2 REVIEW OF TANZANIA ECONOMY**

### **2.1 Review of Economic Performance**

The Government of Tanzania has been implementing various socio-economic policies aimed at stimulating high rates of economic growth for the achievement of poverty reduction goals, resulting in substantial economic performance. These policies address different sectors of the economy including industrial development.

The industrialization agenda is a priority in the current Government and this was enunciated by His Excellence Dr. John P Magufuli, President of the United Republic of Tanzania in his inauguration speech to Parliament on 20th November, 2015. In his speech, the President emphasized that the core strategies for enhanced industrialization are to reposition dormant factories, mobilize domestic and international investors to build/construct industries in the country, and to encourage industries producing goods for mass consumption. He also noted that infrastructure, lack of coordination and poor economic linkages were some of the critical challenges for industrialization. The President further revealed plans to develop a modern economy through industrialization in productive sectors such as agriculture- and resource-based ventures, with a focus on a few sub-sectors such as textiles, fertilizer, agro-processing, leather, light machinery, iron and steel, and tourism.

In order to achieve the industrialization agenda as emphasized by the President and hence the National Vision 2025, the Government has put in place the second Five-Year Development Plan (2016/17 – 2020/21) to articulate the importance of re-organizing the efforts to nurture an industrial economy based particularly on adding value to the abundant natural resources as well as ensuring significant job creation.

### **2.2 Macro-Economic Review**

Despite the global economic trends where developed economies have been growing at a rate below 5%, Tanzania economy has shown resilience in the wake of global economic slowdown. The economic and political stability of Tanzania is poised to attract investments from both local and foreign investors.

Despite the persistence of structural shortfalls, Tanzania's annual growth has been above 7.0% since 2013 and it is projected to grow at 7.2% in 2017, being the fourth largest growing economy in the World. Inflation is targeted on long-term basis at 5.0%. Recently inflation has been converging to this target. The average rate of inflation was 5.6% and 5.2% for the years 2015 and 2016 respectively. May 2017 recorded inflation of 6.1% whereby food and non-alcohol inflation which contributes to 38.5% of the inflation basket was 11.6%. The exchange rate of Tanzania Shilling against US dollar gradually depreciated in recent years. In 2016 average rate TZS 2,177.1 and as at the end of 2017 the exchange rate was TZS 2,249.18.

### 2.3 Demographic Environment

The 2012 Population and Housing Census indicated that, Tanzania has a population of 44.9 million people, of which 51% are female. Of these, 43.6 million live on the Mainland, while 1.3 million live on the Islands of Zanzibar and Pemba. According to the 2012 Census, the population is growing at 2.7% annually. About 74% of the population lives in rural areas, while 10.8 million live in urban areas. Per capital income was 2,131,299.2 in 2016 being an increase of 11.1% from the previous year. Dar es Salaam is the largest city and the commercial capital of Tanzania. It has the main harbor, a major airport, the main industrial city and has the fastest growing economy in the country and within the African region.

### 2.4 Investment Climate

The Government of Tanzania (GoT) cultivates favourable investment climate. Tanzania has the highest inflows of Foreign Direct Investment (FDI) in the East Africa region for the past five years. Over the past five years FDI flows to Tanzania have been greater than that of Kenya, Rwanda and Burundi combined. Tanzania and Uganda are the leading countries in FDI attractions in the region.

The Tanzanian Investment Centre (TIC), established by the Tanzanian Investment Act of 1997, is the focal point for all investors' inquiries and facilitates project start-ups. Companies holding TIC certificates of incentive are allowed VAT and import duty exemptions. Investments in the agricultural sector are among areas of priority for investments incentives. The Tanzania position for doing business as compared to the 185 surveyed countries in the World is as shown in Table 6.

**Table 6: Tanzania Position in Doing Business**

Doing Business	Year 2017 Rank	Year 2016 Rank	Year 2015 Rank	Year 2014 Rank
Starting a Business	135	129	122	119
Dealing with Construction Permits	136	126	147	177
Getting Electricity	87	83	83	102
Registering Property	132	133	132	146
Getting Credit	44	152	150	130
Protecting Minority Investors	145	122	121	98
Paying Taxes	154	150	147	141
Trading Across Borders	180	180	181	139
Enforcing Contracts	59	64	64	42
Resolving Insolvency	100	99	98	134

**Source:** World Bank: Doing Business Report Various

Export Processing and Special Economic Zones (EPZ) also provide opportunities for investment either within the zones or in standalone industrial parks. Investors in this category are provided with operator's license. Processing of agricultural produce is one of the priority investments in EPZ. Multiple investment incentives are provided for investors within the EPZ. These incentives are such as: tax exemption on import and purchase of machinery, building and construction materials; payment of corporate tax; and exemptions from payment of property tax for the first 10 years.

## 2.5 Lending Activities

Commercial lending activities have been growing at 17.62 %. 11.4% of the total lending from commercial banks went to the manufacturing sector.

**Table 7: Commercial Bank Lending by Economic Activities**

Activities	Share (%) in May 2017	Share (%) in May 2016	Growth (%) in May 2017	Growth (%) in May 2016
Agriculture Production	7.1	7.9	-9.1	6.6
<b>Manufacturing</b>	<b>11.5</b>	<b>10.6</b>	<b>10.8</b>	<b>0.3</b>
Building and Construction	4.8	4.7	5.0	3.7
Transport and Communication	5.9	7.8	-23.4	8.8
Trade	21.7	19.8	11.0	7.3
Hotels and Restaurants	3.7	3.3	15.4	1.3
Personal	18.7	18.6	1.7	25.2

Source: Bank of Tanzania Monthly Economic Bulletin June 2017

As noted from the Table 7, lending to the manufacturing sector is only 11.5% and it has grown by 10% in 2017 compared to 2016. These results show that there is a room for growth in the manufacturing sector financing from commercial banks. Moreover, the current industrialisation drive creates more financing opportunities for investments in the agriculture procedure processing sub sector. The overall lending rate is 17.6% as of May 2017.

## 2.6 Manufacturing Sector in Tanzania

Tanzania manufacturing sector has been studied widely. There are various reports from institutions such as UNIDO<sup>1</sup> and Tanzania Bureau of Statistics<sup>2</sup>, and recently a report by REPOA<sup>3</sup>. Tanzania has various policies and strategies that support industrialization. In

<sup>1</sup>[https://www.unido.org/fileadmin/user\\_media/Services/PSD/TanzaniaIndustrialCompetitivenessReport2012-ebook.pdf](https://www.unido.org/fileadmin/user_media/Services/PSD/TanzaniaIndustrialCompetitivenessReport2012-ebook.pdf)

<sup>2</sup>Various Surveys are conducted by National Bureau of Statistics. Latest being 2012. For more details please visit [www.nbs.go.tz](http://www.nbs.go.tz)

<sup>3</sup>[http://www.repoa.or.tz/documents/Manufacturing\\_Paper.pdf](http://www.repoa.or.tz/documents/Manufacturing_Paper.pdf)

1996, the government initiated a 25-years Sustainable Industrial Development Policy for Tanzania (SIDP2020) with the aim of enhancing sustainable development of the industrial sector. SIDP accords priority to employment creation, economic transformation, and equitable development and seeks to strike an appropriate balance between import substitution and export orientation. Under SIDP, the private sector is recognized as the main vehicle for making direct investments in the sector while the government is tasked to provide an enabling investment environment.

Vision 2025 which was formulated in 1999 recognizes the role of the industrial sector in development. It is envisaged that Tanzania will ultimately become a semi-industrialized nation by 2025. To augment the efforts to attain SIDP goals, the Export Processing Zone (EPZ) Act was passed in April 2002 and its implementation started effectively in March 2003. Summary of the key policies is as presented in Table 8.

**Table 8: Policies for Industrial Development in Tanzania**

Policy Name	Description
National Trade Policy 2003	The trade policy was drafted by the Ministry of Industry and Trade and strictly followed the principles stated in the Tanzania Development Vision (TDV) 2025 by focusing on private sector led export growth. The National Trade Policy 2003 emphasized 'stimulation and encouragement of value addition' as one of its chief objectives.
Small and Medium Enterprise Development Policy 2003	This policy specifically acknowledges the special role of SMEs in the context of Tanzanian industrialization. It aims to address SMEs constraints to industrialization and to tap the full potential of Tanzania's SME sector. Presently, majority of the manufacturing operations are SMEs.
Tanzania Mini-Tiger Plan 2020	This plan was introduced in 2005 as an effort to fast-track the implementation of TDV 2025, by replicating the Asian Tigers model in Tanzania. The plan explicitly states that 'the successful development of the manufacturing sector is the formula that all economically thriving Asian countries followed and it is not an exaggeration to say that the sector's success holds the key of the nation's further development' (p. 32). The most important contribution of the Mini-Tiger Plan was the introduction of Special Economic Zones in Tanzania (SEZs) and the plan's focus on export-led manufacturing growth.
Export Processing Zones Program	The programme was initiated by the Export Processing Zones Act of 2002, but was formally institutionalized by the creation of the Export Processing Zones Authority (EPZA) in 2006. The objective of establishing EPZs was, among others, the promotion of investment for export-led industrialization, an increase in foreign exchange earnings, an increase in employment and the promotion of the processing of local raw materials. Currently, six industrial

Policy Name	Description
	parks are operational in Tanzania, while EPZA have identified 17 regions for developing EPZ/ SEZ in future.
Five Year Development Plan (2015/16-2019/20) (FYDP)	After the ten-year review of the TDV 2025, the Government of Tanzania realized that strategic medium- and long-term plans are required to achieve the objectives and goals set by TDV 2025. The overall goal of the first Five Year Development Plan (FYDP) is to unleash the country's resource potentials in order to fast-track the provision of basic conditions for broad-based and pro-poor growth. The Plan emphasizes the building of a foundation for self-propelling industrialization and export-led growth. The industrial sector has been identified as a core priority in the FYDP.
Long Term Perspective Plan (2011/12-2025/26) (LTTP)	The LTTP is the roadmap for the development of three FYDPs for the realization of the TDV 2025. The plan is not restricted to the broad economic transformation of the country and spells out a detailed industrial transformation path of the country. The removal of the binding constraints to growth through the FYDP I is meant to set the scene for unprecedented growth in the industrial sector (especially of medium-technology industries, natural gas-based and agro-processing) during the FYDP II phase, while FYDP III will focus on further promoting the competitiveness of the manufacturing sector and a substantial improvement in Tanzania's share in global and regional trade. This clear focus of the LTTP will place industrialization at centre stage in Tanzania's future growth agenda
Integrated Industrial Development Strategy 2025 (IIDS 2025)	This is the latest initiative by the Ministry of Industry to provide concrete strategies to implement the SIDP objectives in the new economic environment and contributes to the achievement of the goals stipulated in the Tanzania Development Vision (TDV) 2025. Since most of the industrial development strategies proposed in the IIDS touch on multisector issues, it is crucial to establish close collaboration and harmonization with other central and sectoral economic authorities, parties and national planning agencies. The Strategy highlights the horizontal, vertical and supporting framework required to create and position a competitive industrial sector based primarily on labor-intensive industries.

Achievement of industrialization as outlined by the various policy instruments described in table 8 still lags far behind. This situation is attributed to various factors as described in table 9.

**Table 9: Challenges in the Manufacturing Sector**

Challenge	Description
Technical challenges	Unreliable power, increase in power tariffs, old machines and equipment, skills and knowledge, information and communication technology.
Administrative Challenges	Poor enforcement of laws, rules and regulations, complexities in legal and institution framework (bureaucracies), low work morale, poor customer service, management challenges, etc.
Financial Challenges	High cost of working capital (between 18% and 25%), high cost of materials, depreciation of nominal exchange rate.
Market challenges	Negative attitude on consumption of local products, poor income growth.
Policy challenges	Nuisance taxes (6% Skills Development Levy on payroll, 0.3% on Sales for City/LGA levy, 5% crop levy, etc.), too many regulations, weaknesses in firm specific sectors.

**Source:** Summarized from WIDER Working Paper 2014/085<sup>4</sup>

Despite of these challenges, Tanzania has 729 large industrial establishments, a majority of which are manufacturing firms<sup>5</sup>. Industries in Tanzania are distributed in different sub sectors. These are processing industries (43 per cent); manufacturing industries (53 per cent) and assembling industries (4 per cent). Tanzania manufacturing industry is still nascent compared to its major trading partners. It is heavily dependent on agriculture processing, since agriculture is the predominant economic activity for many people in Tanzania (URT 2007, 2008). But in a competitive global economy, Tanzania is a market for products from other countries, as local industries can't satisfy demand for industrial goods in the country. Tanzania's five major trading partners are China, South Africa, India, the United Arab Emirates and Japan.

### 2.7 Focus on Food Processing Industry in Tanzania

Food processing industries are subjected to various regulatory requirements. There are several regulatory agencies that regulated food processing industries. These are such as Tanzania Food and Drugs Authority (TFDA), Tanzania Bureau of Standards (TBS), National Environment Management Council (NEMC), Occupational Health and Safety (OSHA), and other relevant licensing authorities.

<sup>4</sup>[http://www.repoa.or.tz/documents/Manufacturing\\_Paper.pdf](http://www.repoa.or.tz/documents/Manufacturing_Paper.pdf)

<sup>5</sup>URT 2010, Annual Survey of Industry Production and Performance

The following are the requirements stipulated by the Tanzania Food and Drugs Authority (TFDA) for the food products manufacturing facility: -

1. Application form no. 001&003 should be filled
2. Copy of academic certificate of qualified personnel
3. Commitment letter from qualified personnel
4. Process flow chat
5. Plant layout

22.2 percent (96,708 households) were in urban areas. The table 11 below shows the distribution of households by district.

**Table 11: Distribution of households by district in Tanga Region**

District/Council	Total		Rural		Urban	
	Number	Percentage	Number	Percentage	Number	Percentage
Tanga Region	435,583	100.0	338,875	77.8	96,708	22.2
Lushoto	104,441	24.0	96,736	92.6	7,705	7.4
Korogwe	51,967	11.9	47,552	91.5	4,415	8.5
Muheza	47,608	10.9	44,647	93.8	2,961	6.2
Tanga City	31,307	14.1	11,885	19.4	49,422	80.6
Pangani	12,964	3.0	10,897	84.1	2,067	15.9
Handeni	54,681	12.6	54,681	100.0	N/A	N/A
Kilindi	46,239	10.6	46,239	100.0	N/A	N/A
Mkinga	25,254	5.8	23,403	92.7	1,851	7.3
Korogwe Town	15,489	3.6	2,835	18.3	12,654	81.7
Handeni Town	15,633	3.6	N/A	N/A	15,633	100.0

The average household size for Tanga urban is 4.5 persons for household while that of Tanga rural is 4.7 persons per household.

Literacy rate was determined for the persons aged 5 years and above. Out of 1,716,939 people in this category, 74% were literate. The literacy rate was higher among males (76.8%) compared to that of females (71.5%). There is a higher literacy rate in urban areas (87.7%) compared to rural areas.

Data on current economic activities indicates that among 1,410,333 persons aged 10 years and above in the region, 877,319 (62.2 percent) were employed while the remaining 38.8 percent are not employed. Furthermore, the results show that 25.6 percent of the population aged 10 years and above in Tanga region were full-time students, six percent were home maintenance workers and 3.5 percent were unable to work. The unemployed persons (those who were not working but looking for work and those not looking for work but available for work) accounted for about two (2.3) percent of all persons aged 10 years. The table below shows employment distribution by district in Tanga region.

**Table 12: Employment Distribution by District in Tanga Region.**

District/Council	Total	Employed	Unemployed	Home (cooking/hygiene/caring)	Maintenance	Full-time Pupils/Students	Unable
Tanga Region	1,410,333	62.9	2.1				
Rural	1,087,372	67.1	1.3	6.0		25.6	3.5
Urban	322,961	48.7	4.9	3.6		24.6	3.4
Male	670,973	65.3	2.5	13.8		28.8	3.8
Female	739,360	60.7	1.8	2.0		27.4	2.9
Lushoto	335,845	62.9	1.2	9.5		23.9	4.1
Korogwe	169,824	68.0	1.0	2.4		30.5	3.0
Muheza	149,180	65.6	1.9	3.0		25.1	2.9
Tanga City	204,254	44.1	6.4	4.6		24.3	3.5
Pangani	38,330	64.2	2.0	17.2		28.0	4.3
Handeni	178,398	68.8	0.9	7.9		21.7	4.1
Kilindi	149,853	74.4	1.0	4.3		22.4	3.6
Mkinga	81,785	64.9	1.4	4.3		16.4	3.9
Korogwe Town	48,912	58.2	3.0	5.0		24.9	3.8
Handeni Town	53,452	59.1	2.1	7.3		28.1	3.3
				7.4		28.0	3.4

Data shows that a majority of the people are engaged in agriculture (75.5 percent), followed by Own non-agriculture (13.5 percent) and employee (8.5 percent). The employment status of people in Tanga region is as shown in the table below

**Table 13: Employment Status of People in Tanga Region**

District/Council	Total	Employer	Employee	Own Non - Agriculture	Own Agriculture	Family Worker	Apprentices	Other
Tanga Region	877,318	0.4	8.1	13.5	75.5	2.3	0.1	0.1
Rural	721,963	0.3	4.6	8.8	83.7	2.5	0.1	0.1
Urban	155,355	0.7	24.6	35.3	37.5	1.4	0.3	0.2
Male	435,562	0.4	10.4	15.0	71.7	2.2	0.2	0.1
Female	441,756	0.3	5.9	11.9	79.3	2.4	0.1	0.1
Lushoto	210,298	0.3	4.7	6.9	85.8	2.0	0.2	0.1
Korogwe	115,235	0.2	4.6	7.5	85.6	2.0	0.1	0.0
Muheza	96,887	0.4	7.9	10.0	80.4	1.1	0.2	0.1
Tanga City	89,396	0.9	31.5	44.6	20.6	2.0	0.3	0.2
Pangani	24,847	0.4	12.1	27.9	56.9	1.9	0.2	0.2
Handeni	121,049	0.2	3.6	7.4	86.1	2.5	0.0	0.1
Kilindi	108,010	0.2	1.9	8.6	84.6	4.7	0.0	0.1
Mkinga	52,632	0.3	7.3	16.9	72.8	2.6	0.1	0.1
Korogwe Town	28,420	0.2	15.4	19.1	64.8	0.5	0.0	0.1
Handeni Town	30,543	0.6	9.0	20.1	67.7	2.2	0.2	0.1

The Employment and earnings survey of 2012 revealed that a majority of people who are gainfully employed in Tanga region have a monthly wage rate of between 150,000-300,000 representing 27.14% of the sampled employees. The monthly earnings for different wage categories is as shown in the table below

**Table 14: Monthly earnings for different wage categories**

Monthly wage rate	%
Less than 70,000	5.44%
70,000-150,000	22.48%
150,000-300,000	27.14%
300,000-500,000	17.68%
500,000-1,500,000	25.56%
More than 1,500,000	1.69%

Data also show that the annual average wage for Tanga region is TZS 186,359 for cash earnings regular while that of cash earnings casual is TZS 13,039.

## **4 PROJECT DESCRIPTION AND TECHNICAL FEASIBILITY PLAN**

### **4.1 Project Description**

Darworth is promoting two projects. One project will involve storage and milling facilities for maize. Another project will involve processing and packaging of fruit juice and other beverages.

#### **Fruits processing facilities**

This facility is expected to process and package fruits, mainly oranges. The facilities will also have an option of making juice from fruits concentrates as well as packaging carbonated drinks.

#### **Maize storage and milling facilities**

This facility is expected to have modern storage facilities of 4000 tons with an option for expansion. It will also have milling facilities with a capacity to mill 30-50 tons per day. It will also have an automated packaging facility.

### **4.1.1 Analysis of Raw Materials Catchment Areas - Maize and Fruits**

#### **4.1.1.1 Muheza DC**

Muheza District has 33 wards which has 135 villages. The district has a population of 204,461 comprising of 103,618 females and 100,843 males. The district has five agro-ecological zones categorized in terms of the amount of rainfall, soil type and fertility, and altitude- all of which determines the type of crops grown in the areas. Muheza district produces both maize and citrus fruits. Around 20,000 ha of area is planted with maize whereby the average yield is 1.8 tons/ha which gives a yearly production of 36,000 tons. The district also produces oranges, production for the last five years ranged from a low of 60,000 tons to a high of 221,195 tons per year. The increase in production is due to increase in farm area whereby currently 12,288.6 ha are planted with oranges compared to 8,043 ha in 2011/12.

#### **4.1.1.2 Korogwe DC**

Korogwe district has 20 wards, 122 villages and 610 hamlets. The district has a population of 242,038. Korogwe district has three agro ecological zones. Of the three agro ecological zones, the low wetland zone covering the Magome and Mombo wards (comprising of 35% of the district) grow maize and fruits such as mangoes, oranges and tangerine. Between 55,000 ha to 75,000 ha is used to grow maize in the district, whereas the average yield is 1.1 tons/ha. This gives a yearly production of between 60,500 tons to 82,500 tons per year.

#### **4.1.2 Analysis of Market and Distribution Channels**

Market analysis considers both the market for raw materials (input market) and finished products. The envisaged project will procure raw materials from the area of production. The initial plan is to concentrate on Tanga region. There are three main players in the markets for maize. These are farmers, traders and processors. The trading of maize is not organized in any form. Farmers- many of them producing at small scale do not have negotiating power. Traders have more information and access to both, local farmers where they buy maize at farm gate prices and urban markets where they sell maize at higher margins. Processors can buy either directly from farmers or from traders. Traders usually buy from farmers who sell relatively small quantities of maize, they stockpile the maize to get sizable quantities which they can sell in urban markets or processors at a higher margin. Therefore, processors who buy from traders pay a higher price per Kg but incur less cost of collecting maize from farmers. Buying directly from farmers will involve extra cost for setting up collection points near the points of production.

The input market for oranges displays similar characteristics as the one for maize. There are three main actors in the market namely farmers, traders and processors. A majority of farmers own farm plots of up to 2 Ha. There is an AMCO for orange farmers. Previous efforts to organize and develop an organized market for oranges was done with the assistance of Agricultural Sectors Development Programme (ASDP) built a collection and polishing centre at Mtindiro. The Muheza District Council owns the facilities. Farmers sell their oranges to local agents who collect and sell to urban markets and also export to Kenya.

The envisaged project will produce maize flour, makande maize, and fruit juice. The market for these products is found in market centers in the villages, townships and cities, depending on the scope of targeted market.

Three major trade routes service Tanga region. These are: Tanga-Horohoro-Mombasa Road, Tanga-Segera-Moshi-Arusha Road and Tanga-Segera-Dar es Salaam Road. These are well serviced roads with many townships along the way. The road network connecting different districts are good and passable throughout the year, but the roads going to villages, where the main areas of production are located are not as good. Some of them are paved with gravel, some are not paved at all, making them impassable during the rainy season. The nature of road network means higher transport cost for procuring inputs and distributing finished products.

### Capability Assessment for Engagement of Farmers in Contract/Outgrower Engagement

Contract farming model comprises of an agreement between the seller (in this case, farmers) and the buyer, which establishes conditions for production and marketing of farm products. The agreement establishes responsibilities for both a seller and a buyer. The farmers are expected to:

- Produce the agreed quality and quantity of farm produce;
- Commits to sell to the buyer the agreed quantity and quality of farm produce.

The buyer is expected to:

- Commit to purchase farm produce;
- In some cases, commits to support production (farm inputs, pesticides, technical advice, transport to collection point etc.).

The closest maize farming contractual arrangement in Tanzania is the purchase for progress (P4P) initiative piloted by the World Food Program (WFP) in Tanzania as described in Box 3.

**Purchase for Progress (P4P) Experience in Tanzania**  
The program aimed at strengthening capacity of smallholder farmers to supply maize and beans directly to WFP. WFP piloted different contracting arrangements. These are such as:

- Direct purchasing
- Forward Contracts
- Small holders friendly tenders

Since farmers in the area where the program was being implemented were not organized, WFP established contractual relations with SACCOs whose presence in rural areas is more prominent than AMCOs.

WFP specified quality criteria for maize to be supplied by farmers. The quality criteria specified acceptable levels for: moisture content, foreign matter, broken grain, rotten and diseased grain, immature and shriveled grain, and aflatoxins.

Several issues emerged during this arrangement. These are:

- Farmers were finding it difficult to meet quality criteria for WFP, while other buyers did not demand the same.
- WFP negotiated prices after the maize was collected from farmers, while other buyers were procuring maize for cash on delivery. This prompted farmers to default on their commitment by side selling to other buyers.

There are various contract farming models. These are:

a) **Centralized model:** in this model, a local processor buys from a large number of small scale farmers.

b) **Multipartite Model.** in this model, two or more organizations come together to coordinate cooperation between farmers and buyers.

c) **Intermediary model:** this model has the same characteristics as the centralized model, except that is an intermediary act on behalf of the buyer.

d) **Informal arrangement:** these are verbal agreements between contracting parties.

There are different benefits that accrue to both farmers and buyers in the contract farming

arrangement. For farmers, this arrangement provides:

- Access to inputs and technical advice;
- Assured markets for their farm produce; and
- A platform for negotiating price of their farm produce.

For buyers, this arrangement provides:

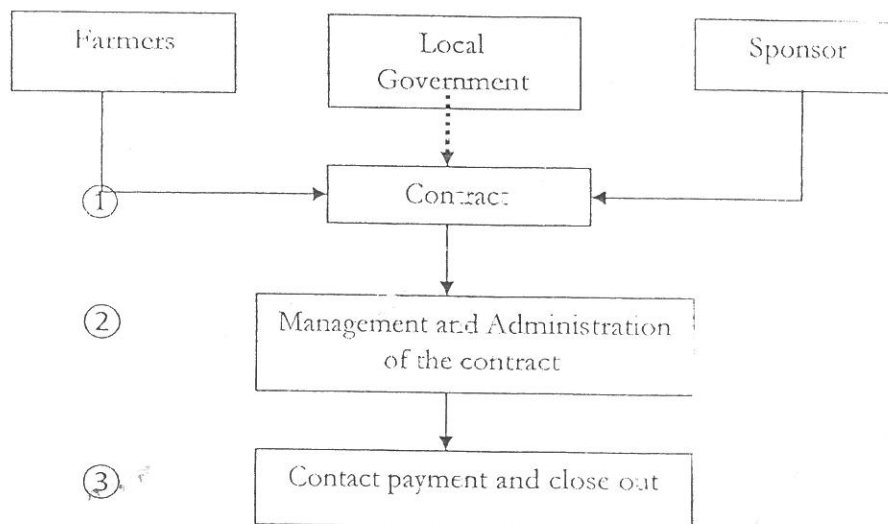
- Control over volume and quality of farm produce;
- Lower transaction/production cost when compared to owning a farm;
- Reliable production compared to open market purchase.

In Tanzania, this method is employed for non-perennial crops such as sisal, cotton, sugarcane and tobacco. Lessons drawn from these experiences points out problems encountered during implementation of contract farming arrangement. These are such as:

- Poor farm management leading to poor yield even in cases of additional inputs from buyers;
- Farmers diverting inputs into other purposes and therefore reducing yields; and
- Farmers selling outside contract (extra-contractual marketing), thereby reducing processing factory throughput.

The following framework is applied for contract farming

**Figure 1: Contract farming framework**



The agreement between farmers and the sponsor is indicated in ①. The local government plays a facilitating role between the farmers and the sponsor. Since farmers

~~who grow maize are not organized in AMCOs, there has to be a working modality for~~ organizing farmers with the help of the local government. The WFP experience may be applied here by working with farmers who are members of local SACCOs or any other group that is recognized and registered at the district level. The sponsor need to have an engagement with stakeholders (extension officers, cooperative officers and the local administration at the village level), before any agreement is reached between the sponsor and farmers. The extension officers and the cooperative offers will be involved in identification of farmers who are willing to be engaged in the contract farming arrangement. The village government will be involved during negotiations with the sponsor and it will give a legal backing to any agreement reached between the farmers and the sponsor. It is important at this stage to have a uniform legal framework for engaging farmers, since the sponsor will be negotiating with multiple farmers groups who might have different demands. It will be very difficult to manage different groups, which have different contract terms.

Once an agreement is in place between farmers and the sponsor, management and administration of the contract follows is indicated in ②. At this stage, the sponsor needs to address the following issues:

- 1) The best way to deliver support to farmers as per agreement;
- 2) Farmers training and extension support;
- 3) Inputs supply to farmers- including the modality for farmers to pay for the inputs;
- 4) Compensation for extension officers who will be dealing with farmers;
- 5) Any investment in equipment that will be needed to support farmers e.g. tractors for tillage, motor cycles for extension officers; and
- 6) Continuous support and monitoring of the crop with the support of the extension officers,

Stage ③ involve delivery of the crop to the sponsor. At this stage the following need to be taken into consideration:

- 1) Payment modality depending on the contract terms;
- 2) Quality checking as specified in the contract (in case such specification are present in the contract);
- 3) Support to farmers in the management of crop after harvest e.g. drying, shelling and bagging of the maize ready for delivery at the company premise;
- 4) Management of collection points for the crop.

### 3.1.4 District(s) Support to the project

The proposed project has the support of the regional as well as district authorities. Interviews with the Tanga Regional Commissioner and DEDs for Korogwe and Muheza reiterated the commitment of the regional and local government to support the project. The pledged support was described in terms of

- Expedited permits and legal produces for setting up the plant and its operations;
- Extension services support to farmers in the project area;
- Awareness creation and organizing farmers who would be interested to participate in the project.

#### 4.1.3.1 Views from Tanga Regional Office

Farmers are generally not organized in effective groups. According to RC, they need to do through more mobilization and have the farmers appreciate the importance of organized groups for easy farm distribution, seeds provision, assurance of getting market, etc. A big challenge will be inadequate of extension officers and cooperative officers. But if the government decides to establish this system, it can be done.

There is also a lot post harvesting wastage where farmers cannot store their produces. This has triggered TPL, a newly industry established in Tanga to introduce a new technology for manufacturing special sacks (*magunia*) which have good storage capability compared to the ordinary ones. This industry sells its products to farmers and DWFP

According to the RC, people in Tanga have been very much excited with the news of establishment of the industries of Maize and Juice in Tanga region. The RC noted that even the President was briefed on this new initiative during his recent official visit in the region and promised to lay a foundation stone for the industries. So, there is a lot of expectation from the people and government for the investment

#### Challenges

- Not many, but could be issues of electricity and transformers from TANESCO which may take time.
- Environmental issues have been major one of the major problems in the past when it comes to establishment of an industry, but now these issues are no longer too bureaucratic as in the past.
- 

#### 4.1.3.2 Views from Muheza DC

The Muheza district council has identified the orange sub-sector as a growth area and has commissioned research aimed at identifying the constraints and opportunities of orange production within the district. The pro-orange development mindset at council and

regional level could serve as an important driving force when facilitating the improvement of income and employment opportunities for MSEs in the orange sub-sector. This will make them an easy partner to collaborate with.

Muheza has the largest orange farms, more than 1200 acres and produces 200,000 tones per year for two seasons. In winter, production may drop. We have a number of orange trees varieties including seedless. Our main market is in Kenya.

The ASDP initiated the Mtindiro area for grading and waxing oranges. The structure of the market is there and it belongs to the council.

The place is centrally located and easily accessible. It is about 10-12km. The area is about 15 metres from the road.

We have also a surveyed area (Kibada) which is a developed area for an industry. We will be happy if to have the industry installed her. Muheza is better suited for fruits industry than Handeni and Korogwe. The best quality juice trees are located in Muheza. Muheza is also a centre for all the other districts.

### Challenges

- Nnzi mvamizi (Bactosera Disease) has been a problem. If we can control the insect, we will be able to produce more. The flies are from South Africa. This disease has spread to Handeni and Korogwe. There has been a challenge of joint effort to fight the disease.
- The farmers do not know the real buyer. The price also depends on the supply. For example, the cost of an orange is 25Tshs but the broker will sell between 50 -100 Tshs.
- There have been some investors in the past who had contract with some farmers on planting yellow maize but unfortunately when the harvesting time arrived, the investor was no longer available. This is created a lot of suspicion among the maize farmers. To address this, there is a need for more awareness creation as well mobilization from the government to
- For orange farming, there is no much problem with creating farmers associations or creating groups as compared to
- Orange is more realistic for its establishment in Muheza than maize.

The analysis of the views of the council officials from Muheza show that if they were to be asked which project was more viable between juice factory and maize meal factory in Muheza, their conclusion would be that the maize meal should be established in Handeni, and Orange Juice Industry Muheza. According to their varied opinions, Michungwani is not a conducive area for the proposed investment. For example, if there will be another investor in Muheza who will establish an orange industry in Muheza, the industry at Michungwani will die. Moreover, research as shown that shown than more than 10 of lorries

(with 10 tonnes capacity) cross the border to Kenya and all of them are from Muheza. It was also observed that Darworth is the third company to have shown some interest of investing in Muheza.

#### 4.1.3.3 Views from Handeni DC

Discussions with the District Executive Director (DED) and the responsible officer for Cooperatives reveals that here are some possibilities of incorporating farmers into an out grower scheme. The problem which is available is lack of financial services and proper and effective organization and management of the AMCOs. Handeni has 14 AMCOs, 12 Maize and 2 Orange growers, all located along A14 road. AMCOs signed MoUs with the National Food Reserve Agency (NFRA) to buy maize based on the government minimum price which is normally set by NFRA. The price is normally higher than market price during harvest season. However, for the past one-year NFRA was unable to purchase maize from the AMCOs. The AMCOs also had financing experience with NMB, which was dropped due to the uncertainties with the main buyer which is NFRA.

Challenges which are faced by the AMCOs is lack of financing. Handeni has a huge land which is available for cultivation. It also has 7 government owned storage facilities with an average capacity of 500 tons and newly constructed 2,000 tons capacity storage facility in Handeni. In total, government owned warehouses have capacity of 5,500 tons.

#### 4.1.3.4 Investment in Own Farms for Maize and Oranges

Based on the fact that there could be competition or price fluctuations whereby farmers will be unwilling to sell maize during harvest season due to either offered high price from NFRA or other competitors, or else improvement of the storage facilities, it is advised that promoter can take an alternative to undertake farming activities to meet at least 20% of the required capacity.

Other factors are:

- 1) Low mechanization - Handeni DC has only 10 tractors
- 2) Different variety of maize (white and yellow maize), mangoes and oranges
- 3) Low yield per acre of maize and oranges
- 4) Opportunity to grow alternative fruits such as passion fruits in own managed farm
- 5) Opportunity to research on best farm practices and variety of fruits
- 6) Opportunity to understand yield and support needed to the out-growers and expected returns. Handeni DC is willing to offer land for large scale farming.

## 5 ANALYSIS OF PROJECT LOCATION

The company has secured a plot at Segera Ward in Handeni District Council. Both factories will be located on this site. A detailed location of the proposed site for the two factories is shown in figure 2 below. Technical details are as indicated in Table 11

**Figure 2: Site Location – Geographical Location**

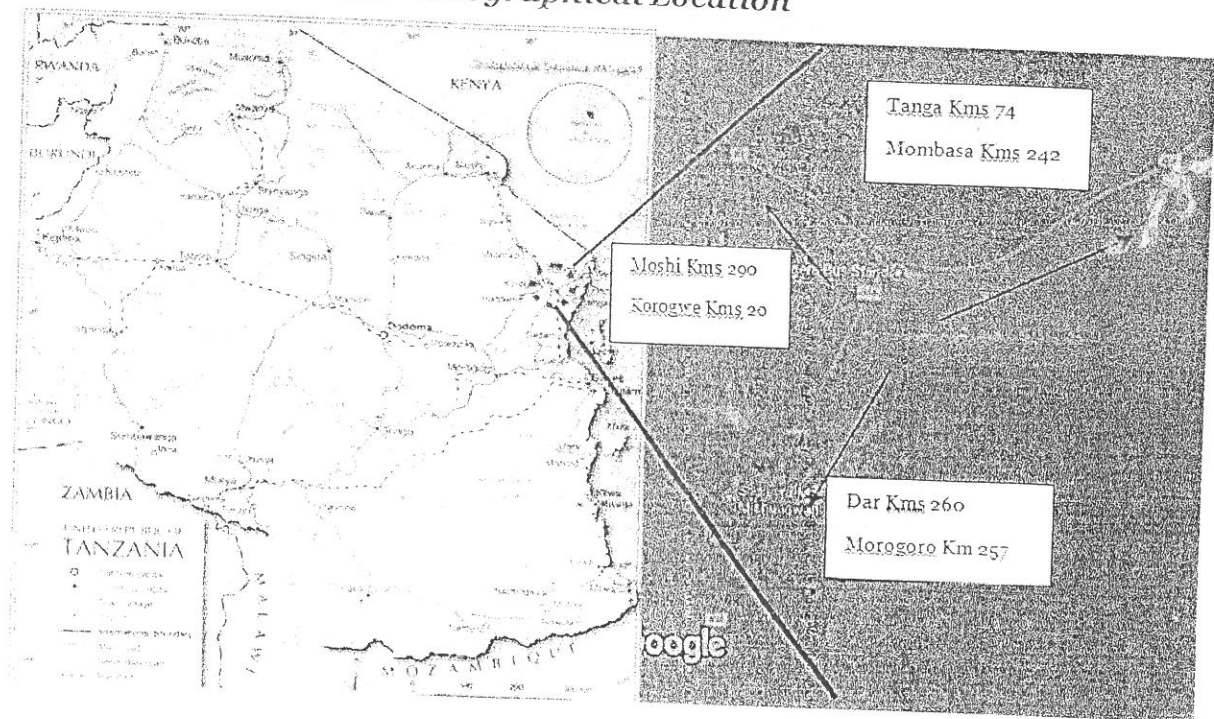
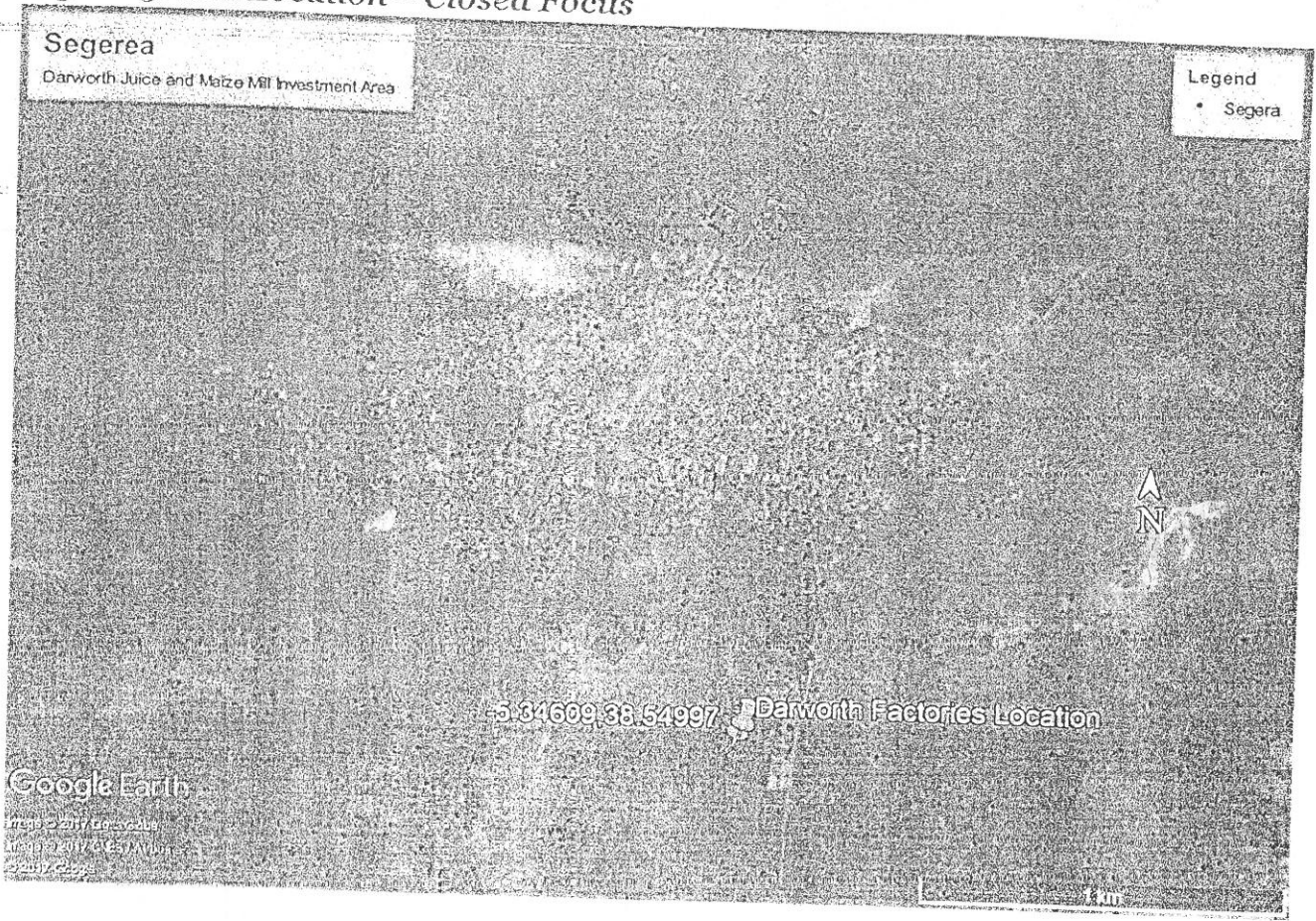


Figure 3: Site Location – Closed Focus



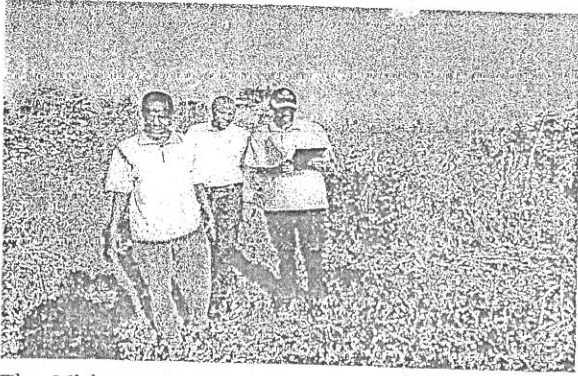
Site location details and technical analysis is as presented in Table 11

**Table 15: Site Location Details**

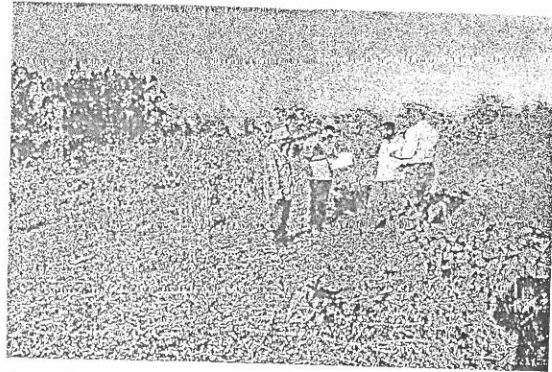
<p>1. Site location: Where is the site located (within the city or town boundaries or outside)? Include at least google map of the location. – GPS Location, Include Village, Ward and Population in the area</p> <p>2. What is the size of the plot?</p>	<p>Site is located about 1.6km from A14 Road (Chalinze to Tanga road) in an already developed road, with 200 meters access to the road. An alternative road is planned which will also serves the envisaged development of a health centre nearby the site location – about 1 km from the A14 road. Site location GPS tracking links is available <a href="#">here</a>.</p> <p>The site is located in Segera ward, Michungwani Village, Migombani</p> <p>The plot size is 10 acres</p>
<p>3. Site geometry and topography: (How is the geometry of the site? Surface condition (topography) of the site: Is the site flat, sloping towards where or undulating?). Any special physical condition of the site? (Include photos as necessary)</p>	<p>The site has a polygon structure (see site map). There site is elevated by 10 to 15 feet towards West to East and South to North. The site is elevated by more than 100ft from A14 road.</p>
<p>4. Site boundaries: What are the properties that border the site in all sides of the plot or site? (Include photos as necessary)</p>	<p>North: The site borders a primary school – not in good conditions, old buildings, not well constructed. Can cause damage is heavy machines are used</p> <p>South: Bare land - earmarked for the construction of a health center</p> <p>East: Road access to the site – 200m. Area is earmarked for construction of secondary school.</p> <p>West: bare land – owned by individuals – stretched to about 600m from the A14 road.</p>
<p>5. Accessibility of the site from major communication routes: Is the site easily accessible from major roads within the city or town? <i>What is the approximate distance these major routes?</i> (Include photos as necessary)</p>	<p>Site is currently accessed through a 1.3 km stretch from the main road (A14) and from the rough road it is 200m to the site location. An alternative route can be constructed – about 1km from the main A14 road. There might be some involvement of the Local authorities for the access road as well as development of the road. See the Site Location Routes here.</p>
<p>6. Soil conditions: At least visual soil survey of the site has to be made to assess whether the soil is: loose sand, clay or loose sand with clay or other, e.g., black cotton soil. Water table?</p>	<p>The soil is clay. Water table is believed to be 100+ meters based on the interviews conducted. The land is elevated – in a hill side about 100ft from the A14 road</p>

7. Are there any existing buildings on the site? How many and in what condition? (Include photos as necessary)	There is no existing building in the land.
8. Vegetation: Is the site heavily vegetated? What type of vegetation, or a farmland? <i>Any large / big trees on the site?</i> (Include photos as necessary)	The land was used for cultivation of maize and it is a clean land with few mango trees.
9. Climatic aspects of the site: general, rainfall, temperatures, wind patterns, humidity; etc	Climatic conditions – not established.
10. Building Regulations guiding the development of the area: e.g., Residential, Commercial, Institutional land? Site regulations in terms of: Coverage, Plot ratios, Setbacks (Front, Rear and Sides). Any land restrictions?	Not established – The site is exclusive for industrial use
11. Analysis of the real estate development at the site including – housing, rental charges, availability, conditions	Real estate development in the area: the area is well developed. With about 60 government employees residing in the area. Michungwani/Segera has over 100 bed rooms for guest houses/hotel. House rent ranges from TZS 15,000 to 20,000 per month per room. 2 bed room ranges from TZS 50,000 to 100,000 per month. 3-bedroom houses range from TZS 120,000 to 160,000. There is a plan to transform Michungwani to be town and the government has a plan to develop 5,000 plots in the area, for commercial and residential use.
12. <i>What kind of neighbourhoods? Residential or commercial? Low, medium or high-density end?</i> (Include photos as necessary)	The area has residential and commercial buildings along A14 road. Major businesses are lodges, petrol stations, services – such as metal works, trading, etc.
13. Infrastructure: Are there any such infrastructure on the site or near the site, like: accessible road, Electricity supply (What size and reliability – check with nearby TANESCO office and nearby businesses), Water supply (Line and availability – Check with Water Authority and nearby users), Telecommunication Lines, mobile phones services Storm water drainage lines, Waste water disposal systems (Sewerage lines, etc.); (Include photos as necessary)	<p>Accessible road. Available – 1.5km from the A14 road and 2.9km to Tanga/Moshi Junction from the proposed site.</p> <p>Railway station: about 8kms – Hale – Nyuzi station</p> <p>Electricity supply: 33kV – 1km accessible via A14, National grid nearby – less than 3km. All requests for electricity connection – from Korogwe Town Council TANESCO office.</p> <p>Water: Line supply 6" to Mgambo JKT – 600m from A14. Not quite reliable. Water connection request from Korogwe TC. Bore holes available – about 3 in operational in the town. About 100 to 130m bore hole suggested.</p> <p>Energy: 4 Petrol service stations in the area</p> <p>Mobile phones: All major networks accessible.</p> <p>Storm Water drainage /Waste Water Disposal: Need to be designed – available area- to be acquired for such purpose West side of the plot location, elevated for about 60-80 ft.</p>

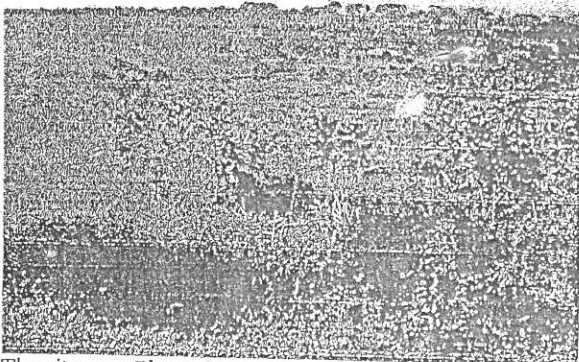
	Police station: available – 14 security personnel (policemen and women)
14. Economic Activities: Are there any economic activities close or near to the site? What kind of these economic activities? E.g., Farming, Businesses, Services like: Hotels, Guest Houses, Shopping Facilities, Educational Institutions, Hospital services, etc.) (Include photos as necessary)	<p>The area is circulated with huge farms for maize, sisal, oranges. The soil is fertile. Businesses around include hotels (1-2 stars -2), guest houses – about 10. Shopping areas retail shops. Market place available – market day every Saturdays. Educational institutions: 3 primary schools, 1 government secondary school (2<sup>nd</sup> secondary school is planned near the site),</p> <p>Financial Services: Banking services – Korogwe about 23 kms, Mobile Money services and Agent Banking representatives available.</p> <p>Health services: Korogwe TC hospital (Magunga) – 23 kms. Proposed health center nearby the site.</p> <p>Garages: 4 garages available in the area</p> <p>Bus stand – available near Tanga/Moshi Junction – about 1 kms from Michungwani town.</p> <p>Postal services – Korogwe – 23 kms</p> <p>Business licenses and other permits for conducting business: Handeni DC – about 100 kms</p>
15. Community Environment: How are the community's views in general about investment in this area? What type of investment does the community prefer or feel acceptable and necessary in their community? (Include photos as necessary)	AMCOs and World vision has operations in the ward.



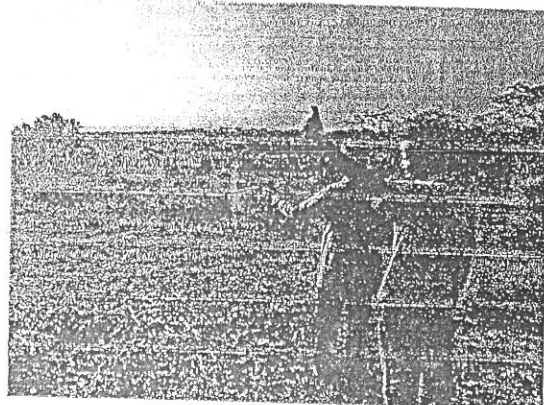
The Michungwani Village Executive Officer showing the consultants the proposed site for the project



Consultants getting a debriefing of the area from the VEO



The site area. The main Dar-Tanga road can be seen from the distance



Village officers showing the consultants the borders of the proposed site area

## 6 ECONOMIC, SOCIAL AND ENVIRONMENTAL IMPACT ANALYSIS

The socio-economic impact assessment was conducted to gain a general understanding of the potential range of impacts of the proposed factory. The focus was on array of impacts such as changes to levels of income and employment, access to services, quality of life as well as the implications of each particular change.

### 6.1. Economic Impact

The economic impact focused on analysis of the general levels of income type and level of employment, business value, as well as mental and physical well-being at both community and national levels. The economic impact analysis is summarized below as follows:

1. At macro (national) level it is about the value addition provided by the factory. The industries will add to the value chain of the fruits and plans to a value addition in the process. This represents the potential value addition for the industries which trickles down to the economy with multiplication effects minus some potential leakages especially to the fruit growers. The ultimate ranges from increased income from employment at individual levels to increase in various taxes and levies.

2. Employment has been a major social and economic issue for Tanzania especially for youths. The industries will employ a significant number of people from the surrounding areas as full time and part time staff directly excluding the indirect employment to be created in the value chain.

3. The construction and operation of the industries will stimulate economic activities directly or indirectly linked to the related industries. The industries workers who will be employed at the two plants will be renting houses in Korogwe town and suppliers of various services including the construction materials.

4. The envisaged juice and maize industries will enable new investment and spin-off of other business ventures in the surrounding areas

5. The envisaged industries will contribute to enhance the coffers of Central and Local Government through paying taxes and statutory cesses and levies

6. The proposed industries will provide a learning curve experience or lessons for graduating into large industries or establishing additional industries/factories for juice and maize meal by the local investors and reduce the importation of juices.

## 6.2. Social Impact

Social impact analysis is concerned with the mapping out of the community well-being, mental and physical well-being, service provision as well as demographic/population changes and migration especially for youths. Social impact is closely related to economic impact and the two cannot be discussed in isolation. The social impact of the envisaged two projects is summarised below:

1. The project will result to the employment creation in the area three districts and beyond the region.
2. The proposed industries will help to reduce the acute problem of rural-urban migration that the region is facing especially in the major cities such as Tanga.
3. It is expected impact of the two industries in terms of income generation will help to address some adverse effects of population growth in the region and the demand for employment.

## 6.3. Environmental Impact and Considerations for Environmental Impact Analysis

The environmental impact assessment focuses on aspects such as the levels and impacts of effluents from increased activities in terms of waste water, increased smoke emission as well as dust and noise level due to increased vehicle traffics and other activities. It also focuses on effects on the ecosystems and ecology in general. Accordingly, a more detailed report on the environmental impact analysis will be prepared in line with the requirements of the National Environmental Management Council (NEMC).

Accordingly, the environmental impact and considerations for environmental impact analysis was based on gaining a general understanding of the potential range of impacts of the proposed two industries. The focus was to assess environmental impacts such as changes to levels of income and employment, access to services, quality of life as well as the implications of each particular change. While a more detailed report of the Environmental Impact Assessment will be issued, the consultants have strong feeling that there are very few unfavourable environment effects for the proposed industries.

## 7 CONCLUSION

The agribusiness projects presented in the analysis (Reference to Annex A and Annex B) on the operation of juice making factory and maize mill seems to be feasible environmentally, economically, socially and financially. The project is timely, its location and opportunities which are offered in the market provides potential for business undertaking.

We thus recommend the implementation of the project. Environmental impact assessment, detailed design for the infrastructure needed and machinery procurement process would further perfect the assumptions which have been considered in the preparation of this plan.

## 8 IMPLEMENTATION PLAN

The implementation plan is as indicated. The company can plan to start with one project or both projects – depending on the financing arrangement.

**Table 16: Proposed Implementation Schedule**

S/No	Activity	Juice	Maize Mill
1	Acquire all the legal documents concerning the land acquisition	Jan 2018	
2	Establishment of the new company- MEMARTS and Company Registration – Board of Directors Appointment	Jan 2018	
3	Undertaking architectural and engineering designs	Jan – Mar 2018	
4	Securing finance	Jan – Mar 2018	
5	Start construction of the factory	Apr to Aug 2018	
6	Procurement of Machinery	Jun to Sep 2018	
7	Hiring Management Team	Aug 2018	Jul 2018
8	Developing of Branding and Promotion of the Brand and Registration	Apr to Oct 2018	
9	Operational Plans for the Established	Jul to Oct 2018	
10	Employment of Key personnel for Projects	Oct 2018	Sep 2018
11	Preparations of the Internal Operations Documents for the Company - Regulations, Policies and Procedures, Bidding documents, etc.	July to Oct 2018	
12	Infrastuctural and External works finalization	Aug to Sep 2018	
13	Machine Fixing and Testing	Sep to Nov 2018	
14	Securing raw materials, working capital and other services	Jul 2018	Oct 2018
15	Starting Operations	Nov 2018	Sep 2018
16	Marketing of finished product	Dec 2018	Oct 2018

Selected List of Institutions for Regulatory and Licensing purposes

Institution	Type of Licensing/Regulation	Frequency	When Needed
Treasury Registrar	Performance based for privatized institutions	Annually?	Annually

Institution	Type of Licensing/Regulation	Frequency	When Needed
Business Registration and Licensing Authority	For registration of the company and trade marks	Once	Before or during the implementation
Tanzania Revenue Authority	For Tax related issues – TIN and annual licensing	Once and annual returns/ Also quarterly VAT and income tax provisions	After registration before licensing
Constructors Registration Bureau	Permit to construct factory	Once	Before construction – layout plan and architectural drawings to be submitted.
Ministry of Industry and Trade	Industry license	Annually	Before operations
Tanzania Investment Centre	Investment/Tax/Fiscal incentives	Three/Five years	Before operations/discussion with financiers
Tanzania Food and Drugs Authority	For food manufacturing facility	Once subject to annual inspection fees	Before construction
National Environment Management Council	Environmental Impact assessment – licensing	Once with annual retention fees	Before construction
Tanzania Bureau of Standards	Checking standard of the food processed/packaging	On sample production and annual retention fees	Before commercial production
Korogwe Town Council	Submission of architectural drawings for construction and for operation licenses	Once and Annual	Before construction and Before commercial operations
National Social Security Fund	For employees' benefits	Monthly	After operations not more than 3 months
National Health Insurance Fund	For employees' health benefits	Monthly	After operations not later than 5 months
Fire and Rescue Army	For fire and rescue	Before operations for inspection and Annually	Before operations and annually
Tanzania Private Sector Foundation	For business sector	Annually	Depends
Occupational Safety and Health Authority	For undertaking compliances with safety measures	Annually	Before starting operations

Institution	Type of Licensing/Regulation	Frequency	When Needed
Tanzania Chamber of Commerce Industry and Trade	For business sector	Annually	After starting operations not more than 6 months
Association of Tanzania Employers	For maintenance of employer rights	Annually	Optional
Employees Association	For employee's pressure groups	Monthly	Not more than 1 year after operations.

## List of Annexes and Appendices

### Annex A

See a separate document

### Annex B

See a separate document

### Other Supportive Annexes

- 1) Company registration certificate
- 2) Business licenses
- 3) MEMARTS
- 4) Recent Tax clearance certificate
- 5) Recent BRELA Annual returns forms
- 6) VAT and TIN certificates
- 7) Company organization structure
- 8) Company profile
- 9) Company financial statements - for the past three years
- 10) Lease agreement or certificate of ownership of the current company location
- 11) List of board members
- 12) CVs of the key personnel