

**TANZANIA HUAFENG AGRICULTURE DEVELOPMENT LTD**

# **BUSINESS PLAN**

**ESTABLISHING CASSAVA STARCH PROCESSING PLANT**

**Prepared by:**

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## **Project Description**

The following proposal is for establishment of a modern cassava starch factory with a capacity of 10 tons of dry starch per day. The factory is already established at Mkenge village in Mkuranga district approximately 70km from Dar es Salaam city Centre, where all basic industrial requirements such as water, power, transportation facilities and raw materials are available. The factory has acquired 17 acres of land, with land title deed issued by the ministry of land.

There is a tradition in the coast Region of Tanzania to cultivate cassava for food consumption, it is estimated that more than 200,000 tons of cassava is produced every year in the Coast region, cassava being in excess of supply it has no other use apart from making flour for food consumption, recent **Tantrade study in Tanzania shows that there is about 25,000 tons of importation of dry starch in the country per year, value about \$ 12,000,0000**. The company has seen an opportunity in investing in the cassava starch processing plant for local market and exportation. As a country becomes more industrialized, demand for both native and modified starch increases, but this demand is typically met through imports rather than locally made starch, Starch been an important raw material for a number of industries, including textiles, paper adhesives, food and pharmaceuticals, this will remain an important input to the industries globally.

### **Objective of the study:**

The purpose of this study is to provide information to TIC to present the bright future of this project.

### **The business**

Tanzania Huafeng Agriculture Development LTD deals with processing of fresh cassava and drying them for export purposes, the processing plant is located at Mkenge village in Mkuranga District coast region, the company has adequate warehousing and drying facilities that facilitates safe keeping and reducing moisture content in cassava. The second phase of the project will be installing machineries for extraction of starch from fresh cassava which will be used in bakery products, confectioneries, canned fruits, jams and preserves, monosodium glutamate (MSG).

## **History and owner**

Tanzania Huafeng Agriculture Development Ltd is a limited liability company owned by Mr. Jie Qi (5,000 shares) and Mr. Shuwei Qi (5,000 shares). The company was incorporated under the companies ACT, 2002 in January 30<sup>th</sup>, 2019. The main objective of the company is to process fresh cassava for various uses. The business has not started yet it is still under construction as at the date of this business plan, below is the statement of affairs as at 30<sup>th</sup> September 2019.

## **Management profile**

Mr. Jie Qi is an energetic and successful entrepreneur and businessman who sees his own business grow in practice from his ideas, Mr. Jie Qi's long term plans are to make sure that the business growth is sustained during the implementation of this business plan, he handles the day to day management of the business, he is assisted by the factory manager. The company has a fulltime qualified accountant and the cashier.

Apart from establishing this new line of business, both Mr Jie Qi and Shuwei Qi own 100% of the **Jielong Holdings Tanzania Ltd** operating an edible oil processing plant in Shinyanga, which registered in TIC already as well.

Mr. Shuwei Qi is the chairman of the board and Jie Qi is the managing Director in charge of the projects in Tanzania.

## **PRODUCTS**

Tanzania Huafeng Agriculture Development Ltd will start selling starch to the local market, specifically focusing the east African market. This will become good substitution of importation.

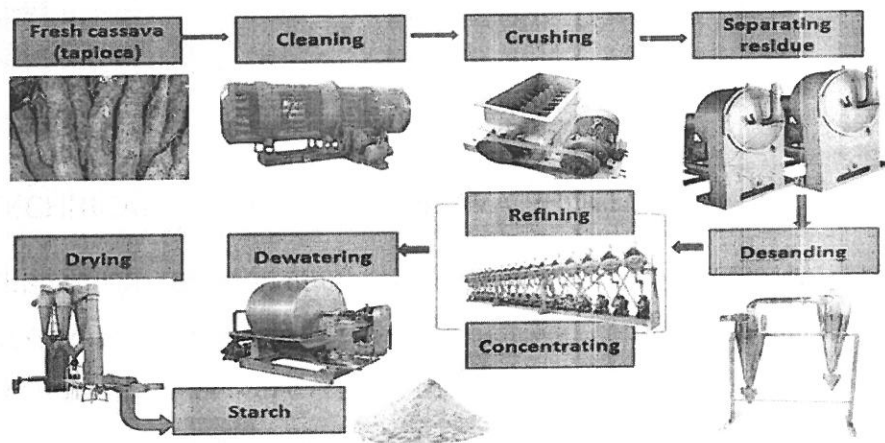
## **PROPOSED IMPLEMENTATION SCHEDULE**

This project will take maximum one year to complete.

## TECHNICAL ASPECTS OF CASSAVA PROCESSING

This study describes mainly the second phase of the project which is processing of fresh cassava into starch, this product will contribute 100% of the company turnover. The activity been very crucial that the need for the overdraft and long term loan has arose to specifically service this product.

Here is the the product process flow chart.



### SOURCE OF FUNDING

	Equity funding Huafeng	CRDB Bank loan	Total
Capital Cost	903,456,412	3,290,000,000	4,193,456,412
Initial working capital	<u>1,081,000,000</u>	<u>470,000,000</u>	<u>1,551,000,000</u>
<b>Total investment</b>	<b><u>1,984,456,412</u></b>	<b><u>3,760,000,000</u></b>	<b><u>5,744,456,412</u></b>
	0.35	0.65	

### Industry environment

Overview of the industry

#### Cassava cultivation/Supply

Cassava is among the agriculture produce that Tanzania is highly prioritizing to boost the country's economy. In 2012 Tanzania ranked the 12<sup>th</sup> largest cassava producer in

the world and the 6<sup>th</sup> largest in Africa after Nigeria (top in the world), DRC, Ghana, Angola and Mozambique. (FAO Statistic Data base)

To produce high quality cassava starch a reliable supply of roots with optima maturity of 10-12 months is critical, immature roots will have high water content and soluble sugars and less starch, over mature roots will contain reduced amounts of starch of lower quality and high fiber.

The cassava roots variety can reach about 12ton to 16tons per acre .The production is much higher than traditional species, Each acre a farmer can get net margin of TZS 300,000 minimum after all expenses, so farmers have incentive to cultivate cassava and we can get enough raw materials for processing. The harvesting time is normally in January and in between the year, this difference is due the two planting seasons in the year.

### **Cassava Processing**

There are many advantages of utilizing cassava for starch production, Cassava offers a relatively cheap sources of raw material containing a high concentration of starch (dry matter basis) that can match or better properties offered by other starches(maize, wheat, sweet potato and rice), cassava starch is easy to extract using a simple process( when compared to other starches) that can be carried out on a small scale with limited capital, in addition cassava starch has a high level of purity due to low levels of proteins and lipids found in cassava roots.

5tones of fresh cassava produces 1tone of dried starch, the price of fresh cassava is **TZS 100,000 per ton** to the factory. The company is planning to buy 50tones of fresh cassava per day in which case if processed we get 1 tons/day of dried starch,

### **Markets and Industrial uses of cassava starch**

- ✓ Manufacturing ethanol
- ✓ Pharmaceutical
- ✓ Glycerinium
- ✓ Adhesive( chemical)

The major markets for cassava starch are textiles, paper manufacture, dextrin productions, food products and conversion syrups.

#### **✓ Food industry**

Because of clarity of the gel, cassava is preferred for use in soup mixes and in confectionery products that require a clear gel or thickener, such as soups and pudding mixes, cassava is also the preferred starch for production of starch pearls for reasons of clarity.

#### **✓ Paper manufacture**

Although paper is mainly wood pulp, starch is added to paper as a binding and coating agent.

## **Starch Prices and demand**

Due to the increasing global demand for the starch and the use of high volume industrial processing, world market prices for starch are highly competitive, nevertheless prices vary according to country of production, source of starch, quality and changes in the currency value.

In 2015, the global free on board FOB Bangkok basis cassava starch prices was 421\$/ton. Local Tanzania market price from Tantrade is \$690/ton.

## **Customers**

We have already contracts with our customers in China, our clients will open L/C (Letter of Credit) with their banks for money transfer and cargo export assurance. We prefer to sell in local market while price is higher and it is much easier for delivery.

## **Competitors**

Currently there is only one company (Cassava Starch of Tanzania Corporation) doing the same model of business which is in Mtwara and no any other in Mkuranga, Otherwise there are few small holder factories which produce starch in a very small scale which can not suffice the local demand.

## **Sales forecast**

The price of dried starch will be sold at 590\$(TZS 1,175,000) per ton

The table below gives a run on the predicted sales, it is expected that the sales will increase at 5% after the injection of this facility in the next year and the farmers will be motivated by the proposed price by the ministry of agriculture. The need for the loan will therefore be geared to the procurement of fresh cassava.

## **Financial Information ( see the attached appendix in attached excel)**

### **Assumptions**

- ✓ No stock of fresh cassava will be maintained at the warehouse
- ✓ Discount rate/interest rate is assumed to be 17%
- ✓ Tax rate is calculated at 30%
- ✓ Management estimates that the economic useful life of assets to be 5yrs.
- ✓ The harvesting season runs up to 200 days throughout the year

## **Economic & social aspects**

- ✓ Contributing towards poverty eradication in Tanzania specifically the Mkuranga population.
- ✓ Providing employment opportunities for 100 Tanzanians and much more indirect jobs
- ✓ Contributing to the government coffers through payment of taxes.
- ✓ Corporate social responsibility, the company will contribute towards construction of a dispensary around the Mkenge village.

## **Environmental Impact Assessment**

The company has already obtained EIA certificate from NEMC, as attached.

### **Conclusion:**

The business review indicates that the company's management is competent and capable in managing this business, the forecasted results of the business show that the business is viable and profitable. We recommend that the TIC can grant this company the TIC certificate.

**BUSINESS PROPOSAL FOR CASSAVA STARCH PROCESSING PLANT  
FOR TANZANIA HUAFENG AGRICULTURE DEVELOPMENT LTD**

**PROJECT INVESTMENT**

ITEM	USD/TZS	USD	TZS
Applied Exchange Rate	2.300		
<b>NEW INVESTMENT</b>			
Buildings		400,000	920,000,000
Plant and Machinery		800,000	1,840,000,000
Contingency		120,000	276,000,000
<b>Total</b>		<b>1,320,000</b>	<b>3,036,000,000</b>

**APPENDIX 1**

**DEPRECIATION SCHEDULE in USD**

ITEM	RATE	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Buildings	2% DV										
Opening Balance		400,000	392,000	384,160	376,477	368,947	361,568	354,337	347,250	340,305	823,499
Additions											
Annual Depreciation	2.0%	8,000	7,840	7,683	7,530	7,379	7,231	7,087	6,945	500,000	16,470
Closing Balance		392,000	384,160	376,477	368,947	361,568	354,337	347,250	340,305	823,499	807,029
Plant Equipment	12.5% DV										
Opening Balance		800,000	700,000	612,500	535,938	468,945	410,327	359,036	314,157	274,887	975,526
Additions											
Annual Depreciation	12.5%	100,000	87,500	76,563	66,992	58,618	51,291	44,880	39,270	840,000	-
Closing Balance		700,000	612,500	535,938	468,945	410,327	359,036	314,157	274,887	139,361	121,941
<b>Total Depreciation</b>		<b>108,000</b>	<b>95,340</b>	<b>84,246</b>	<b>74,522</b>	<b>65,997</b>	<b>58,522</b>	<b>51,966</b>	<b>46,215</b>	<b>156,167</b>	<b>138,411</b>
Term Loan											
Applied Exchange Rate	USD/TZS	2,300	USD	TZS							
Total New Investment			1,320,000	3,036,000							
Interest Rate Per Annum			8.0%	14.0%							
Annual Instalments											
Grace Period (Years)											
Loan Duration (Years)											
	Principal	Balance	Interest	Total							
YEAR 1		1,320,000	105,600	105,600							
YEAR 2		330,000	990,000	105,600	435,600						
YEAR 3		330,000	660,000	79,200	409,200						
YEAR 4		330,000	330,000	52,800	382,800						
YEAR 5		330,000	-	26,400	356,400						
<b>TOTAL</b>		<b>1,320,000</b>		<b>369,600</b>	<b>1,689,600</b>						

**APPENDIX 2**



SCENARIO 1: THE BASE CASE

Admin Expenses in USD

APPENDIX 7

Management Salaries & Wages												
	Number	USD per month	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Managing Director	1	800	9,600	9,600	11,040	11,040	12,696	14,600	16,790	19,309	22,205	25,536
Chief Accountant	1	500	6,000	6,000	6,900	6,900	7,935	9,125	10,494	12,068	13,878	15,960
Procurement officers	1	350	4,200	4,200	4,830	4,830	5,555	6,388	7,346	8,448	9,715	11,172
Marketing Manager	1	400	4,800	4,800	5,520	5,520	6,348	7,300	8,395	9,655	11,103	12,768
Store Keepers	1	300	3,600	3,600	4,140	4,140	4,761	5,475	6,296	7,241	8,327	9,576
Human Resource Officer	1	400	4,800	4,800	5,520	5,520	6,348	7,300	8,395	9,655	11,103	12,768
Secretary/Cashier	1	300	3,600	3,600	4,140	4,140	4,761	5,475	6,296	7,241	8,327	9,576
Project Engineers	2	400	9,600	9,600	11,040	11,040	12,696	14,600	16,790	19,309	22,205	25,536
Drivers	2	200	4,800	4,800	5,520	5,520	6,348	7,300	8,395	9,655	11,103	12,768
Turn boys	2	100	2,400	2,400	2,760	2,760	3,174	3,650	4,198	4,827	5,551	6,384
Mechanics	2	300	7,200	7,200	8,280	8,280	9,522	10,950	12,593	14,482	16,654	19,152
Assistant Mechanics	3	250	9,000	9,000	10,350	10,350	11,903	13,688	15,741	18,102	20,818	23,940
Office Attendant	2	200	2,400	2,400	2,760	2,760	3,174	3,650	4,198	4,827	5,551	6,384
Security Guards	2	100	2,400	2,400	2,760	2,760	3,174	3,650	4,198	4,827	5,551	6,384
Add: 20% Social Benefits			14,880	14,880	17,112	17,112	19,679	22,631	26,075	29,929	34,418	39,581
<b>Total Salaries &amp; Wages</b>	<b>22</b>		<b>89,280</b>	<b>89,280</b>	<b>102,672</b>	<b>102,672</b>	<b>118,073</b>	<b>135,784</b>	<b>156,151</b>	<b>179,574</b>	<b>206,510</b>	<b>237,487</b>
<b>Other Admin Expenses</b>												
Insurance	0.25%	Turnover	5,098	12,036	12,724	13,452	14,160	14,160	14,160	14,160	14,160	14,160
Distribution Expenses	0.10%	Turnover	2,039	4,814	5,098	5,381	5,664	5,664	5,664	5,664	5,664	5,664
General Office Expenses	Per Month	500	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Security Expenses	0.10%	Turnover	2,039	4,814	5,098	5,381	5,664	5,664	5,664	5,664	5,664	5,664
Traveling Expenses	0.03%	Turnover	2,039	4,814	5,098	5,381	5,664	5,664	5,664	5,664	5,664	5,664
Meal Allowances	0.12%	Turnover	2,442	5,777	6,117	6,457	6,797	6,797	6,797	6,797	6,797	6,797
Medical Expenses	0.25%	Turnover	5,098	12,036	12,724	13,452	14,160	14,160	14,160	14,160	14,160	14,160
Marketing Expenses	0.50%	Turnover	10,195	24,072	25,488	26,904	28,320	28,320	28,320	28,320	28,320	28,320
<b>Total Other Admin Expenses</b>			<b>34,954</b>	<b>74,364</b>	<b>78,386</b>	<b>82,407</b>	<b>86,429</b>	<b>86,429</b>	<b>86,429</b>	<b>86,429</b>	<b>86,429</b>	<b>86,429</b>
<b>Total Administrative Expenses in USD</b>			<b>124,234</b>	<b>163,644</b>	<b>181,058</b>	<b>185,079</b>	<b>204,502</b>	<b>222,213</b>	<b>242,580</b>	<b>266,003</b>	<b>292,939</b>	<b>323,915</b>

SCENARIO 1: THE BASE CASE

PROJECTED INCOME STATEMENT in USD

APPENDIX 8										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Revenue	2,039,040	4,814,400	5,097,600	5,380,800	5,664,000	5,664,000	5,664,000	5,664,000	5,664,000	5,664,000
Direct Expenses	1,632,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000
Production Costs (Processing Plant)	1,632,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000	3,360,000
<b>Total Direct Expenses</b>	<b>1,632,000</b>	<b>3,360,000</b>	<b>3,360,000</b>	<b>3,360,000</b>	<b>3,360,000</b>	<b>3,360,000</b>	<b>3,360,000</b>	<b>3,360,000</b>	<b>3,360,000</b>	<b>3,360,000</b>
<b>Gross Operating Income</b>	<b>407,040</b>	<b>1,454,400</b>	<b>1,737,600</b>	<b>2,020,800</b>	<b>2,304,000</b>	<b>2,304,000</b>	<b>2,304,000</b>	<b>2,304,000</b>	<b>2,304,000</b>	<b>2,304,000</b>
Administration Expenses	124,234	163,644	181,058	185,079	204,502	222,213	242,580	266,003	292,939	323,915
Gross Operating Profit	282,806	1,290,756	1,556,542	1,835,721	2,099,498	2,081,787	2,061,420	2,037,997	2,011,061	1,980,085
Finance & Capital Charges										
Interest Payment (Term Loan Facility)	105,600	105,600	79,200	52,800	26,400	58,522	51,966	46,215	156,167	138,411
Depreciation	108,000	84,246	74,522	65,997	58,522	51,966	46,215	156,167	138,411	138,411
<b>Total Finance &amp; Capital Charges</b>	<b>213,600</b>	<b>189,846</b>	<b>153,722</b>	<b>118,799</b>	<b>84,922</b>	<b>110,488</b>	<b>98,181</b>	<b>202,382</b>	<b>194,578</b>	<b>176,822</b>
<b>Profit before Tax</b>	<b>69,206</b>	<b>1,089,816</b>	<b>1,393,096</b>	<b>1,708,399</b>	<b>2,007,101</b>	<b>2,009,454</b>	<b>1,991,783</b>	<b>1,854,894</b>	<b>1,841,674</b>	<b>1,841,674</b>
Taxation (30%)	20,762	326,945	417,929	512,520	602,130	606,980	602,836	597,535	556,468	552,502
<b>Profit after Tax</b>	<b>48,444</b>	<b>762,871</b>	<b>975,167</b>	<b>1,195,879</b>	<b>1,404,971</b>	<b>1,416,286</b>	<b>1,406,618</b>	<b>1,394,248</b>	<b>1,289,426</b>	<b>1,289,172</b>
Accumulated Retained Earnings	48,444	811,315	1,786,482	2,982,362	4,387,332	5,803,618	7,210,236	8,604,483	9,902,909	11,192,081



GN. No. 349



THE UNITED REPUBLIC OF TANZANIA

ENVIRONMENTAL IMPACT ASSESSMENT

# Certificate

**[Section 92(1) of the Environmental Management Act No. 20 of 2004]**

**Application Reference No. 10070**

**Registration No. EC/EIA/2020/0011**

**This is to Certify that**

M/S. TANZANIA HUAFENG AGRICULTURE DEVELOPMENT LIMITED

of P. O. BOX 9984, DAR ES SALAAM

has this day been granted an Environmental Impact Assessment Certificate for the proposed project/Activity titled ESTABLISHMENT OF CASSAVA PROCESSING PLANT

to be implemented/carried out at PLOT NO.1, BLOCK "B", BETA MKENGE AREA, MKENGE VILLAGE,

BETA WARD IN MKURANGA DISTRICT, PWANI REGION

This certificate shall remain in force during the whole lifecycle of this specific project unless henceforth revoked or suspended.

General conditions and terms attached to this certificate are set out herein behind and specific conditions are annexed.

Dated this 10<sup>th</sup> day of MARCH 2020

**Mussa Azzan Zungu (MP)**

Minister of State, Vice President's Office - Union and Environment

### CONDITIONS OF CERTIFICATE

1. This Certificate is valid during the whole lifecycle of this specific project unless henceforth revoked or suspended.
2. The Minister shall be notified of any transfer/variation/surrender of this certificate.
3. Observe all relevant national policies and legislation that guide this specific project throughout its life cycle.
4. Ensure safe disposal of all types of wastes (solid or liquid) in specified sites.
5. Ensure environmental sustainability by avoiding any form of pollution by using most viable management techniques.
6. Adhere to the Environmental Management Plan (EMP) and Monitoring plan (MP) and constantly improve and update them by taking into account any new development.
7. Constantly liaise with relevant authorities and consult stakeholders including local communities in case of any new development or changes as regards to implementation of your project plan activities.
8. Adhere to all proposed mitigation measures as specified in the Environmental Management Plan contained in the Environmental Impact Statement.
9. Abide to all national social and environmental safeguard policies and standards and strive to maintain and constantly improve standards.
10. Prepare an Emergency and Contingency plan and put in place risk and safety measures.
11. Conduct periodic Environmental Audits and facilitate monitoring by relevant authorities.
12. Design and implement an internal Environmental and Safety Policy and Awareness Programme.
13. Prepare Annual Environmental Reports and any other reports requested by competent authorities and the Government.
14. Obtain all other relevant permits.

**The above conditions shall be read together with the specific conditions spelt out in the Annex attached to this Certificate**