

# **AFRICHINA CONSOLIDATED INDUSTRIES LIMITED**



**Business Plan**

**for**

**Concrete Products Factory - Sourcing, Processing and Producing Aggregates,  
Concrete and Concrete products**

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## PROJECT AT A GLANCE

1. Name of Company: Africhina Consolidated Industries Limited
2. Address: P. O Box 419, Dar es Salaam
3. Location of Project: Dodoma
4. Project Cost: USD 1,245,000
5. Means of financing: 100% Equity
6. Production capacity/per day: 400 cubic meters of ready-mix concrete,  
100 poles and 2,000 cubic metres of aggregates.
7. Working hours: 2 shifts of 8 hrs./day, 22 days/month, and  
11.5 months/year
8. Products to be offered: Electric concrete Poles, Ready-Mix Concrete  
Stone Aggregates.
9. Market: Domestic
10. Job creation: 600 direct, 4,000 indirect.

## **EXECUTIVE SUMMARY**

Africhina Consolidated Industries Limited is a company that was registered on July 24, 2020 as a company limited by shares under the Companies Act No 12 of 2002 and was issued with a Certificate of Incorporation No 142194686. The company was established with a purpose of producing aggregates, concrete and concrete products. The factory will be located in Dodoma as driven by the enormous opportunities that exist in the construction industry in Tanzania and the Eastern and Central Africa region as a whole.

Company's main product lines shall include Ready-Mix Concrete, concrete electric poles and aggregates with installed capacities being 400 cubic metres, 100 poles and 2,000 cubic metres per day respectively, working on 2 shifts of 8 hours each daily, 22 days in a month and 11.5 months a year. A total number of 600 direct jobs and 4,000 indirect jobs will be generated by this project.

Shipment of machinery and allied equipment is expected to be made late-March. Port clearance and transportation to Dodoma will take place in April. Installation of machinery and equipment is planned to be carried out from April 2021. Training of operators will be done as installation is being carried out with hopes for test runs to take place in June-July and commercial operations commencing in July 2021.

The project is expected to cost USD 1,245,000 of which USD 216,424 shall finance civil works, USD 664,857 for machinery and utility equipment, USD 242,360 for vehicles, USD 2,370 for computers and electronic equipment and USD 2370 for office furniture and fittings. Additionally, an amount of USD 43,038 shall be incurred for various pre-operational expenses and working capital for initial 3 months shall amount to USD 73,384. The project shall be 100% financed by equity.

An analysis of projected financial statements indicates that the project is highly profitable. Projected income statement for the period 2021 – 2025 shows that revenues shall steadily rise from USD 7,033,576 in 2021 to USD 8,148,982 in 2025. Profit after tax shall be USD 983,543 in 2021 which shall increase to USD 1,213,293 in 2025.

The financial position of the project is quite healthy throughout the planning period. In year 2021 value of total assets is USD 1,990,713 and total liabilities are USD 549,004. In year 2025 assets are valued at USD 2,945,134 with liabilities being USD 619,546. This indicates that liabilities are comfortably covered by assets.

Projected cash flow statement indicates healthy closing balances. Closing cash balances are USD 35,324 and USD 628,314 in the year 2021 and 2025, respectively signifying that the project shall operating on a sound capital base.

## **COMPANY DESCRIPTION**

Africhina Consolidated Industries Limited is a company formed with purpose of manufacturing of concrete and concrete products located in Dodoma as driven by the enormous opportunities that exist in the construction industry in Tanzania and the Eastern and Central Africa region as a whole.

### **1. Our Mission**

Africhina Consolidated Industries Limited's mission is be that one stop center for designing and manufacturing quality products assuring maximum client satisfaction.

### **2. Our Vision**

ACIL's vision is to create an innovative ecosystem which designates the constantly advancing technology to quality produce to meet its client's needs

### **3. Legal Structure**

ACIL was registered on July 24, 2020 as a company limited by shares under the Companies Act No 12 of 2002 and was issued with a Certificate of Incorporation No 142194686 which is attached to this report as Annex 1. Share capital of the company is Sh. 10,000,000,000 divided into 100,000 shares of Sh. 1,000,000 each.

This is a joint venture company whose shareholders are Mega Movers Ltd (Tanzania) and Mr. Yao Di of Hebei Province, China. Each party holds 5,000 shares. Both are accomplished businessmen currently running successful businesses. For a good number of years, Mega Movers has been a one stop centre for agency, transportation and logistics in Tanzania and East Africa at large. Major clients include TANESCO, REA, Ok Electric, DERM Electrical Tanzania and many more.

### **4. Organization, Structure and Management**

Organization structure is a tool that promotes good governance in an institution. A well-structured organization should promote efficiency and increased productivity leading to sustainable operations. The successful implementation of this project lies on acquiring in place foremost skilled and equally qualified and committed personnel and an enabling organization structure. The issues of

organization structure and human resource aspects are discussed in this section as a precondition for rendering overall support to the operations.

ACIL adopts a functional human resource operational structure that allows information to flow from the ground – up and vice versa; categorically defined;

**a) Board of Directors**

The main responsibility of the Board of Directors is to provide oversight functions to management of the company. The Board approves budgets, annual plans, financial statements, etc. The Board of Directors are the de facto managers of the company. However, they delegate the day to day running of the company to management. The company is led by 5 Directors of whom 3 should represent Mega Movers Ltd and 2 should be representatives of Yao Di

**b) Management**

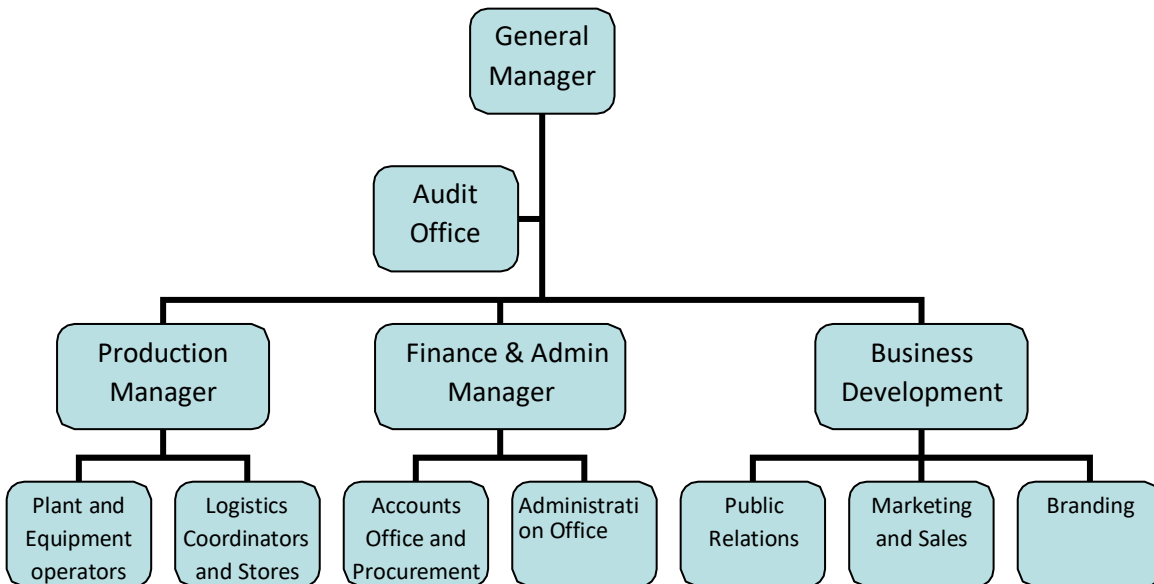
Management is responsible for the day to day operation of the company. It is hereby proposed to have a lean management composed of 5 people namely, General Manager, Production Manager, Finance Manager, and Business Development Manager. Details of the positions including the staffing in respective departments is given in the following table:

**c) Organization Structure**

An Organization structure displays the required reporting and accountability relationships and thus the span of control at different levels of authority. Heavy built structures have tended to be too expensive to maintain and slow in action, when translated in terms of manpower requirement and support facilities.

The aforementioned structure is presented in figure below: -

**Figure 1: Organization Structure**



### **Analysis of Strengths, Weakness, Opportunities, Threats**

The relations between ACIL, customers, suppliers, the Ministry of Infrastructure, National Construction Council, Buildings and Roads contractors, Banks and other stake holders in the construction industry is reflected in the SWOT analyses as follows: -

#### **a) Internal to ACIL**

These are factors which are attributed by ACIL itself; the company is responsible for their existence and covers the strengths and weakness as follows:

##### **i. On Strengths**

- Strong partnership between Mega Movers Limited and Mr. Yao Di that has created healthy synergy
- Directors with proven entrepreneurial skills who have previously managed and are still managing companies with success stories;
- Mega Movers Ltd boasts of long experience in supply of electric poles to TANESCO and REA;

- Strong capital base made by shareholders' contributions;
- Both shareholders with proven experience in the construction and mining industry;

**ii. On Weaknesses**

- Starting business with small market share

**b. External to ACIL**

**i. On Opportunities**

- A thriving construction industry that will provide opportunity for Ready-Mix Concrete and aggregates;
- Mega infrastructure projects namely SGR, Nyerere electric dam (Stigler's Gorge), Oil Pipeline from Hoima in Uganda to Tanga is an excellent opportunity for company's products;
- The massive ongoing electrification program will provide opportunity for concrete electric poles;
- Raw material available abundantly locally in Dodoma;
- ACIL holds 3 Primary Mining Licenses;
- Availability of abundant VETA trainees;
- Excellent communication network close to the factory;
- Strategic location of the factory in Dodoma provide easy access to northern, western, southern and eastern regions;
- Incentive scheme offered by the Tanzania Investment Centre will facilitate investment in this project;
- Tanzania being member of MIGA shall guarantee investments of the foreign partner;
- A friendly business environment;

- Construction of the Nyerere Hydroelectric Station (2000 mw) shall ensure reliable supply of electricity;
- A predictable and sustainable political stability;
- Government's policy that promotes industrialization;
- A stable economy currently growing at 7.5% p.a with low inflation of 4.5%;

**ii. On Threats**

- Depreciation of the Tanzania shilling against the US dollar may push up cost of the project;
- Unforeseen changes in government regulations;
- Frequent change of tax regime;
- Competition from existing players in the industry.

**Conclusion**

The result of the analysis forms an important input to the implementation of this project. ACIL will utilize the strengths and opportunities identified to build its business in order to realize the desired growth that is sustainable. On the other hand, mitigation measures on the identified weaknesses and threats shall be formulated to address the issues which are likely to affect the performance of the plant and these have been incorporated in this report

## PRODUCTION AND TECHNICAL MATTERS

This study looks into production of three main product lines namely: Ready-Mix Concrete, concrete products and aggregates. Machinery has been ordered for concrete mixing, concrete pole making, batch plant, concrete block making machine. These shall come with a Skid Steer Loader.

### 1) Ready-Mix Concrete

Ready-Mix Concrete (RMC) is manufactured in a batch plant according to a set of engineered mix design. Batch plants combine a precise amount of gravel, sand, water and cement by weight (as per mix design formulation for grade of concrete requested for by the customer). RMC is specifically manufactured for customers' construction projects, and supplied to the customer on site as a single product. All aggregates should be of washed type material with limited amounts of fines or dirt or clay.

Ready-mix concrete is used in construction projects where the construction side doesn't want to mix the concrete on site. Using ready-mixed concrete means the product is delivered finished, on demand, in the specific quantity required and in the specific mix design required. Most large projects in Tanzania prefer RMC in consideration of the cost and time of hiring mixing equipment, labour plus purchase of and storage of for the ingredients of concrete, added to environmental concerns (cement dust is an airborne health

hazard) may simply be not worthwhile when compared to the cost of ready-mixed concrete, where the customer pays for what they use, and allows others do the work up to that point<sup>1</sup>



Ready-mix concrete is bought and sold by volume – usually expressed in cubic metres. RMC can be transported to the site using a number of ways but the most common and simplest is the chute fitted to the back of a mixer truck (picture), which is suitable for placing concrete near locations where a truck can back in

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<sup>1</sup> Construction Business, National Construction Council, Vol. 13, February, 2020

## 2) Concrete Products and Concrete Poles

A wide range of precast concrete products exists. A precast concrete product is a construction product produced by casting concrete in a reusable mold or “form” which is then cured in a controlled environment and ultimately put to desired use. Examples of precast concrete products include: -

- a) Precast poles used for electricity distribution, telephone, fencing, railway transportation, etc;
- b) Pavement blocks, kerbs;
- c) Railway concrete sleepers;
- d) Slabs
- e) Culverts, bridge systems and many more others.



**Concrete poles** shall be produced using a conical steel form of (reusable) different sizes and designs which rotates with a speed of up to 600 rpm around its longitudinal axis. Due to the induced centrifugal forces the concrete is flung against the walls of the form and thus

compacted. The pole becomes ready for use after curing. At all times production process shall be carried out such that it conforms to standards prescribed earlier this year by the Tanzania Bureau of Standards (TBS). The factory shall produce 40,000 poles annually.



Whereas machinery that has been imported is capable of producing most of these moulds, this business plan is focusing only on the production of concrete poles for electricity distribution. Other types shall be considered later.

### **3) Aggregates**

Production of aggregates is essentially a mining activity that is carried out through an operation known as quarrying. Aggregates in the context of the construction industry are important because of the qualities they possess such as strength, shape, size, texture, bulk, abrasion ability or resistance.

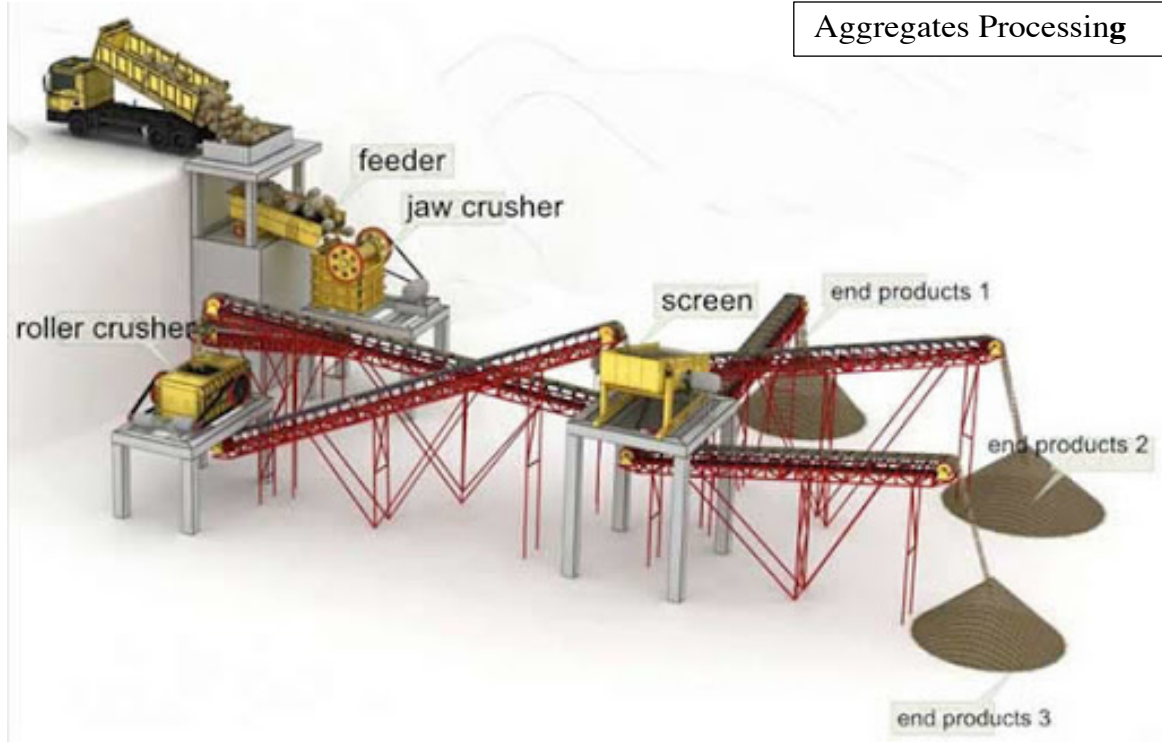


### Aggregates: A World of Minerals

During processing, aggregates are distilled down to a level of their most common use. Aggregates are screened to various diameter chunks. The proper processing of aggregates is important in maintaining their desirable qualities. For instance, between 60 and 75 percent of aggregates consists of both coarse and fine aggregates. If aggregates are not properly sized, as well as clean and free from other matter, the concrete could fail to meet its desired strength and cause structural failure.

The first stage of aggregate processing involves quarrying where a large deposit of desirable aggregate is identified and extracted from the ground. Hardened substances are either blasted or cut into smaller manageable-sized rubble and transported by truck or conveyor belts to the processing area. This is why production of aggregates is recognized as a mining activity. In order to carry out this activity, one needs to obtain a Primary Mining License from the Mining Commission of the United Republic of Tanzania which is mandated to issue various licenses in the mining industry.

## Aggregates Processing



In carrying out production of aggregates, the company shall always keep employee's safety in line with the Occupational Health and Safety (OHS) Act No. 5 of 2003. The Act provides for the safety, health and welfare of persons at factories and all other work places. Additionally, in so far as quarrying and processing of aggregates involves emission of a lot of dust, due care shall be taken to conform to requirements of the National Environmental Management Council.

## DEMAND AND MARKET ANALYSIS

This chapter seeks to analyze the market and demand of company's products namely concrete electric poles, ready concrete mix and aggregates in order to rationalize and justify the investment in this project.

### a) Concrete Electric Poles

In analyzing the national demand for concrete electric poles, one needs to align this demand to the massive electrification program currently going on in the country. The Tanzania Electric Supply Company Limited (TANESCO) and the Rural Energy Agency (REA) are state agencies vested with the responsibility of implementing the electrification program in the country with TANESCO handling the national grid and electrification in urban areas and REA focusing on electrification in the rural areas.

In carrying out its mandate REA works hand in hand with the Rural Energy Board (REB) and Rural Energy Fund (REF) in stimulating and facilitating improved access to modern energy services in rural areas through empowering both public and private sector initiatives.

According to the National Census of 2012, about 70% of Tanzanians reside in rural areas, of which 69.8% have access to electricity in 2019/20 compared to 49.3% in 2016/17. But only 24.5% of rural households were actually connected to electricity in 2019/20 (16.9% in 2016/17). The majority of villages (97.8%) are connected to TANESCO/REA power grid, 1.8% are connected to local private power producers, and 0.4 are connected to both TANESCO/REA and local private producers. The government of Tanzania plans to increase rural connection levels to 50% by 2025 and at least 75% by 2033<sup>2</sup>

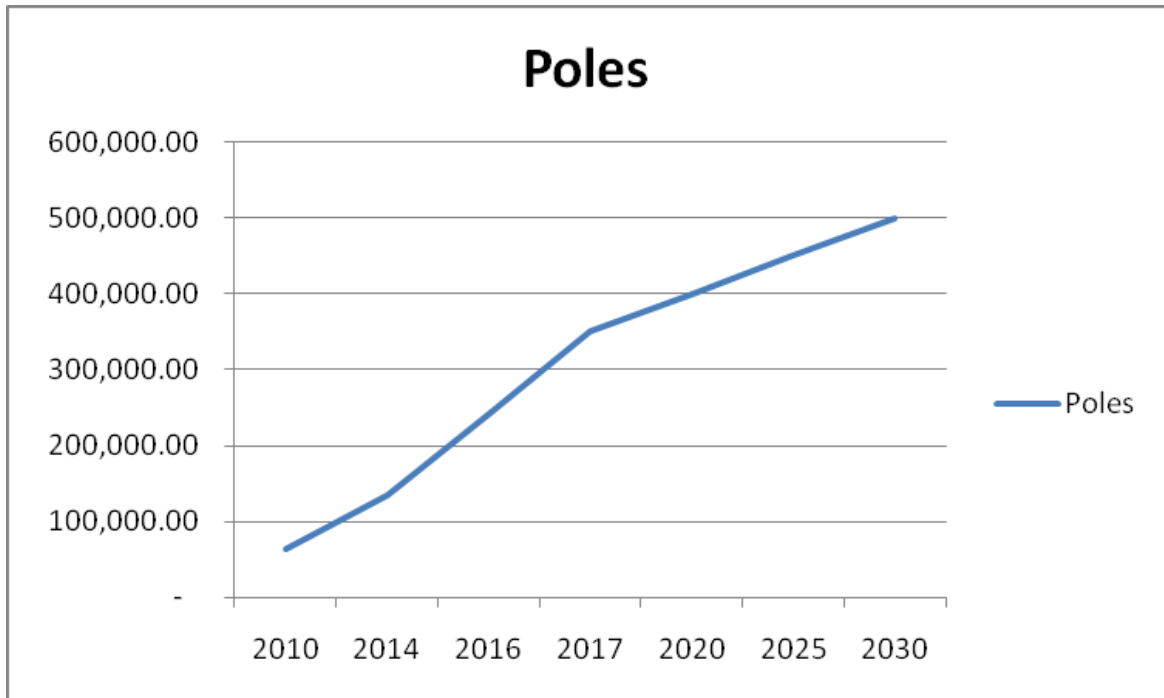
In implementing this program, both TANESCO and REA have been using treated eucalyptus wooden poles, with 12m poles being used for 11 kV and 33 kV lines and 20m poles for lower voltage lines (0.23 and 0.4kV). Longer poles (13 – 15m) are used for road crossings. The demand for wooden utility pole demand has increased steadily during last few years (Figure 2). The increase in demand for wood poles is due to an increase in the customer connection target from 100,000 to 250,000 per annum in order to meet the Government target to increase connection level to 50% by 2025 and least 75% by 2033<sup>3</sup>

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<sup>2</sup> Rural Energy Agency (REA)

<sup>3</sup> Private Forestry Program, 2016

Figure 2: Demand for Wooden Poles



Source: Combined TANESCO And REA Projections

Projections indicate that demand for poles rose from 62, 875 in 2010 to 240,000 in 2016, 350,000 in 2017, 400,000 in 2020, 500,000 in 2025 and 500,000 in 2030. It is foreseen that after 2035 demand for poles will begin to fall signifying end of the rural electrification program.

However, in June 2020, the Minister for Energy Hon Dr. Medard Kalemani announced that TANESCO and REA shall start using pre-stressed concrete electric poles in its projects with immediate effect, a move that is expected to save TSH 67 billion annually on maintenance of wooden poles. He said that concrete poles will improve efficiency in the energy sector and ensure reliable power to consumers. He further said that concrete poles have several advantages some of which are that unlike wooden poles concrete poles cannot be attacked by termites. Wooden poles cannot exceed 12 ft<sup>4</sup>

As the REA program comes to an end, the main demand drivers will be the replacement of wooden poles. This demand is likely to continue for many years to come considering the fact that hundreds of thousands of wooden poles are installed all over the country.

<sup>4</sup> Daily News, June 7 2020

From the data in this section, there is no doubt whatsoever that the home market alone for electricity poles is huge and will remain so during the next 20 years. Tanzania, following suite of its fellow African countries and as the Minister already declared, concrete poles shall now be used in electricity distribution projects.



Recent Tanzanian Newspaper Shot: Daily News Paper of March 16<sup>th</sup> 2021 on Concrete Electricity Poles.

#### **a) Ready-Mix Concrete and Aggregates**

Ready-Mix Concrete (RMC) refers to concrete that is specifically manufactured/batched for delivery to the customer's construction site in a freshly mixed and plastic or unhardened state. Concrete itself is a mixture of cement, water and aggregates comprising sand and gravel or crushed stone. In traditional work sites, each of these materials is procured separately and mixed in specified proportions at site to make concrete. Ready-mix concrete is bought and sold by volume – usually expressed in cubic meters - manufactured under controlled operations and transported and placed at site using sophisticated equipment and methods.

On the other hand, aggregates are products of crushed stones that form into various sizes and used as one of key ingredients in construction be it roads construction or buildings constructions. No construction can occur without using ready-mix concrete or aggregates. Hence in analyzing market and demand of RMC and aggregates, one needs to see how the construction industry is behaving.

The construction industry in the country is growing at an exponential rate. The development of the construction industry in Tanzania is underpinned by the roll- out of major public infrastructure development projects. Infrastructure investment is largely concentrated in power generation, buildings and in the transport sector, with a particular focus on the development of the country's SGR project, development of the new capital in Dodoma, roads, ports and the Stigler's hydropower project. Thousands of kilometers of roads construction are also under way.

According to the national Bureau of Statistics, the market value of the construction at current prices increased approximately from U\$6.6 bn in 2017 to U\$7 bn in 2018. Additionally, and of growing importance is the demand for housing and other social infrastructure. Tanzania's substantial housing backlog is estimated to exceed 3 million residential units and annual demand for housing is in the region of 200,000 units. The Economic Bulletin of the Bank of Tanzania of for the quarter ending March 30, 2020 puts contribution by the construction industry to GDP by activity pretty high (13.8%) just falling below agriculture (28.6%). Hence this demand has led to the surging demand of building materials – that includes ready-mix concrete and aggregates.

## ASSESSMENT OF PROFITABILITY, VIABILITY AND LIQUIDITY

### a) Projected Direct Costs

Direct costs constitute raw materials and labor that go directly into production of glass. These are shown in the table below.

**Table 1: Projected Direct Costs**

	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Cement	\$ 2,565,404.05	\$ 2,680,847.53	\$ 2,751,872.21	\$ 2,848,187.84	\$ 2,895,033.32
Aggregates	\$ 1,710,269.37	\$ 1,787,231.68	\$ 1,834,581.47	\$ 1,898,791.89	\$ 1,930,022.21
Electricity	\$ 342,053.87	\$ 357,446.34	\$ 366,916.30	\$ 379,758.38	\$ 386,004.44
Water	\$ 228,035.92	\$ 238,297.56	\$ 244,610.86	\$ 253,172.25	\$ 257,336.29
Direct Labor	\$ 427,567.34	\$ 446,807.92	\$ 458,645.37	\$ 474,697.97	\$ 482,505.55
Others	\$ 142,522.45	\$ 148,935.97	\$ 152,881.79	\$ 158,232.66	\$ 160,835.18
	<b>\$ 5,415,853.00</b>	<b>\$ 5,659,567.00</b>	<b>\$ 5,809,508.00</b>	<b>\$ 6,012,841.00</b>	<b>\$ 6,111,737.00</b>

### b) Projected production

Projected production is based on production of 400 cubic meters of Ready – Mix Concrete, 2,000 cubic meters of aggregates and 100 concrete poles per days working on two of 8 hours per day, 22 days in a month and 11.5 months per year. shifts 7 days a week. Given the fact that commercial operations are planned to start in July 2021, the factory shall operate for only 6 months in that year.

Projected production plan is given in the table below: -

**Table 1 (a): Projected Production Plan**

<b>Product</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Ready concrete mix (cm3)	31,680	33,106	34,430	35,635	36,704
Concrete electric poles (pieces)	7,920	8,276	8,607	8,909	9,176
Aggregates (cm3)	158,400	165,528	172,149	178,174	183,520

**Assumptions**

- a) It is assumed that the plant shall work at 60%, 70% and 80% of its capacity for each of product line in 1st year, 2nd year and 3rd year, respectively.
- b) Number of working days per year shall be 132 in 2021 and 264 in subsequent years
- c) Production capacity is 400 cubic meters per day for RMC, 100 pcs of poles per day and 2,000 cubic meters of aggregates per day

Projected sales plan is given in the following table: -

**Table 1 (b): Projected Sales Plan**

	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Ready Mix Concrete	31,680	4.5%	4.0%	3.5%	3.0%
Price per cm3	4.72				
<i>Subtotal sales</i>	<i>149,413</i>	<i>\$ 156,137</i>	<i>\$ 162,383</i>	<i>\$ 168,066</i>	<i>\$ 173,108</i>
Concrete electric poles	7,920	4.5%	4.0%	3.5%	3.0%
Price per pole (pieces)	214.64				
<i>Subtotal sales</i>	<i>1,699,984</i>	<i>\$ 1,776,483</i>	<i>\$ 1,847,543</i>	<i>\$ 1,912,207</i>	<i>\$ 1,969,573</i>
Aggregates (cm3)	158,400	4.5%	4.0%	3.5%	3.0%
Price per cm3	32.73				
<i>Subtotal sales</i>	<i>5,184,178</i>	<i>\$ 5,417,466</i>	<i>\$ 5,634,165</i>	<i>\$ 5,831,361</i>	<i>\$ 6,006,301</i>
<b>Grand total sales</b>	<b>7,033,576</b>	<b>\$ 7,350,087</b>	<b>\$ 7,644,090</b>	<b>\$ 7,911,633</b>	<b>\$ 8,148,982</b>

**c) Working capital requirements**

Working capital includes funds required to procure cement, salaries, utilities and other requirements needed to sustain operations. An amount of USD 73,384 has been provided for at the commencement of operations as working capital and has been included as part of project cost. This amount shall be sufficient to sustain operations first 3 months after which any working capital needs shall be derived from operations

## FINANCIAL ANALYSIS

The financial analysis is the evaluation of viability of the project over 5 years covering years 2021 – 2025. Financial projections determine the level of costs that will be required to finance operations of production of glass up to 36,500 tons annually. Financial projections include in this evaluation include income statement, balance sheet, cash flow statement and business ratios.

The assumptions underlying these projections are as follows: -

- The project plan covers a period of 5 years from 2021 – 2025;
- Capital expenditure envisaged shall be incurred in 2021, 2022 and 2023;
- Inflationary pressures on costs and revenues have been ignored and constant prices are assuming to prevail throughout the projected five-year period. This is based on the fact that any cost increases during any given period will be balanced by a proportional price review to maintain the same profit margin that can guarantee a good return on investment;
- Foreign exchange rate has been assumed to be 1 US\$ = 2322.14 TZS and has been applied on all costs and revenues;
- Depreciation has been calculated to write off the cost of fixed assets on a straight-line method over the useful lives of assets concerned in determining chargeable for tax and also for replacement of assets. Following rates as prescribed by the Tanzania Investment Centre have been applied:

<u>Item</u>		<u>Depreciation rate (%)</u>
Office equipment	-	37.5
Furniture and Fittings	-	12.5
Motor Vehicles	-	25
Plant & equipment	-	12.5
Buildings	-	5

Subsequently following depreciation schedule has been developed: -

**Table 4: Depreciation Schedule**

<b>2021</b>	<b>Office Equipment</b>	<b>Furniture and Fittings</b>	<b>Motor Vehicles</b>	<b>Plant &amp; Equipment</b>	<b>Buildings</b>
Rate of depreciation	37.5	12.5	25	12.5	5
<b>Cost</b>					
As at Jan 1st, 2021	-	-	-	-	-
Additions during the year	1,185	1,283	121,180	332,429	108,212
As at Dec 31st, 2021	1,185	1,283	121,180	332,429	108,212
<b>Depreciation</b>					
As at Jan 1st, 2021	-	-	-	-	-
Depreciation during the year	222	80	15,148	20,777	2,705
Accumulated depreciation	222	80	15,148	20,777	2,705
<b>Book value</b>					
As of Dec 31st, 2021	962.72	1,202.71	106,032.70	311,651.80	105,506.90
<b>2022</b>					
Rate of depreciation	37.5	12.5	25	12.5	5
<b>Cost</b>					
As at Jan 1st, 2022	1,184.88	1,282.89	121,180.22	332,428.59	108,212.21
Additions during the year	711	770	72,708	199,457	64,927.33
As at Dec 31st, 2022	1,895.81	2,052.62	193,888.36	531,885.74	173,139.53
<b>Depreciation</b>					
As at Jan 1st, 2022	222	80	15,148	20,777	2,705
Depreciation during the year	361	150	26,508	38,956	5,275
Accumulated depreciation	583	231	41,656	59,733	7,981
<b>Book value</b>					
As of Dec 31st, 2021	963	1,203	106,033	311,652	105,507
As of Dec 31st, 2022	380	972	152,233	472,152	165,159

<b>2023</b>	<b>Furniture and</b>		<b>Motor Vehicles</b>	<b>Plant &amp;</b>	
	<b>Office Equipment</b>	<b>Fittings</b>		<b>Equipment</b>	<b>Buildings</b>
Rate of depreciation	37.5	12.5	25	12.5	5
<b>Cost</b>					
As at Jan 1st, 2023	1,896	2,053	193,888	531,886	173,140
Additions during the year	474	513	48,472	132,971	43,285
As at Dec 31st, 2023	2,370	2,566	242,360	664,857	216,424
<b>Depreciation</b>					
As at Jan 1st, 2023	583	231	41,656	59,733	7,981
Depreciation during the year	142	122	38,058	59,019	8,258
Accumulated depreciation	726	352	79,714	118,752	16,239
<b>Book value</b>					
As of Dec 31st, 2022	380	972	152,233	472,152	165,159
As of Dec 31st, 2023	1,644	2,214	162,647	546,105	200,186
<b>2024</b>	<b>Furniture and</b>		<b>Motor Vehicles</b>	<b>Plant &amp;</b>	
	<b>Office Equipment</b>	<b>Fittings</b>		<b>Equipment</b>	<b>Buildings</b>
Rate of depreciation	37.5	12.5	25	12.5	5
<b>Cost</b>					
As at Jan 1st, 2024	2,370	2,566	242,360	664,857	216,424
Additions during the year	-	-	-	-	-
As at Dec 31st, 2024	2,370	2,566	242,360	664,857	216,424
<b>Depreciation</b>					
As at Jan 1st, 2024	726	352	79,714	118,752	16,239
Depreciation during the year	617	277	40,662	68,263	10,009
Accumulated depreciation	1,342	629	120,376	187,015	26,248
<b>Book value</b>					
As of Dec 31st, 2023	1,644	2,214	162,647	546,105	200,186
As of Dec 31st, 2024	1,028	1,937	121,985	477,842	190,177
<b>2025</b>	<b>Furniture and</b>		<b>Motor Vehicles</b>	<b>Plant &amp;</b>	
	<b>Office Equipment</b>	<b>Fittings</b>		<b>Equipment</b>	<b>Buildings</b>
Rate of depreciation	37.5	12.5	25	12.5	5
<b>Cost</b>					
As at Jan 1st, 2025	2,370	2,566	242,360	664,857	216,424
Additions during the year	-	-	-	-	-
As at Dec 31st, 2025	2,370	2,566	242,360	664,857	216,424
<b>Depreciation</b>					
As at Jan 1st, 2025	1,342	629	120,376	187,015	26,248
Depreciation during the year	385	242	30,496	59,730	9,509
Accumulated depreciation	1,727	871	150,872	246,746	35,757
<b>Book value</b>					
As of Dec 31st, 2024	1,028	1,937	121,985	477,842	190,177
As of Dec 31st, 2025	642	1,695	91,489	418,112	180,668

#### d) Projected Income Statement

In 2021 sales shall amount to USD 7,033,576 which shall increase to reach USD 8,148,982 by 2025 assuming a steady growth.

Profit after tax shall be USD 983,543 in 2021 with projected growth to USD 1,213,293 by 2025 where it should stabilize at that level.

The projected income statement measuring the level of profitability of the project is presented in the table below: -

**Table 5: Projected Income Statement**

	2021		2022		2023		2024		2025	
Sales revenue	\$	7,033,576	\$	7,350,087	\$	7,644,090	\$	7,911,633	\$	8,148,982
<b>Direct Costs</b>										
Cement	\$	2,565,404	\$	2,680,848	\$	2,751,872	\$	2,848,188	\$	2,895,033
Aggregates	\$	1,710,269	\$	1,787,232	\$	1,834,581	\$	1,898,792	\$	1,930,022
Electricity	\$	342,054	\$	357,446	\$	366,916	\$	379,758	\$	386,004
Water	\$	228,036	\$	238,298	\$	244,611	\$	253,172	\$	257,336
Direct Labor	\$	427,567	\$	446,808	\$	458,645	\$	474,698	\$	482,506
Others	\$	142,522	\$	148,936	\$	152,882	\$	158,233	\$	160,835
<b>Total direct costs</b>	\$	5,415,853	\$	5,659,567	\$	5,809,508	\$	6,012,841	\$	6,111,737
<i>Gross Profit (loss)</i>	\$	1,617,723	\$	1,690,520	\$	1,834,582	\$	1,898,792	\$	2,037,245
<b>Operating Costs</b>										
Salaries and benefits	\$	39,537	\$	39,205	\$	42,805	\$	42,489	\$	46,393
Rent and overhead	\$	134,192	\$	133,067	\$	145,284	\$	144,214	\$	157,213
Depreciation & Amortization	\$	38,932	\$	71,251	\$	105,599	\$	119,827	\$	100,363
<b>Total operating costs</b>	\$	212,661	\$	243,523	\$	293,688	\$	306,530	\$	303,970
Profit (loss) before tax	\$	1,405,062	\$	1,446,996	\$	1,540,894	\$	1,592,262	\$	1,733,275
Corporate tax (30%)	\$	421,519	\$	434,099	\$	462,268	\$	477,679	\$	519,983
<b>Profit after tax</b>	\$	983,543	\$	1,012,898	\$	1,078,626	\$	1,114,583	\$	1,213,293
Dividends (40%)	\$	393,417	\$	405,159	\$	431,450	\$	445,833	\$	485,317
Retained earnings	\$	590,126	\$	607,739	\$	647,176	\$	668,750	\$	727,976

## e) Projected Balance Sheet

**Table 6: Projected Balance Sheet**

	2021		2022		2023		2024		2025	
Total fixed assets	\$	564,289	\$	902,862	\$	1,128,578	\$	1,128,578	\$	1,128,578
Less: accumulated depreciation	\$	38,932	\$	110,183	\$	215,782	\$	335,610	\$	435,972
<b>Net fixed assets</b>	\$	<b>525,357</b>	\$	<b>792,679</b>	\$	<b>912,795</b>	\$	<b>792,968</b>	\$	<b>692,605</b>
<b>Current Assets</b>										
Inventory	\$	1,083,171	\$	1,131,913	\$	1,161,902	\$	1,202,568	\$	1,222,347
Accounts Receivable	\$	346,861	\$	362,470	\$	376,969	\$	390,163	\$	401,868
Cash balances	\$	35,324	\$	(69,065)	\$	(2,744)	\$	306,751	\$	628,314
Total current assets	\$	1,465,356	\$	1,425,319	\$	1,536,127	\$	1,899,482	\$	2,252,529
<b>Total Assets</b>	\$	<b>1,990,713</b>	\$	<b>2,217,997</b>	\$	<b>2,448,922</b>	\$	<b>2,692,450</b>	\$	<b>2,945,134</b>
<b>Current Liabilities</b>										
Accounts payable	\$	549,004	\$	573,709	\$	588,909	\$	609,521	\$	619,546
Total current liabilities	\$	549,004	\$	573,709	\$	588,909	\$	609,521	\$	619,546
<b>Total liabilities</b>	\$	<b>549,004</b>	\$	<b>573,709</b>	\$	<b>588,909</b>	\$	<b>609,521</b>	\$	<b>619,546</b>
<b>Equity</b>										
Share capital	\$	851,583	\$	446,424	\$	14,973	\$	(430,860)	\$	(916,177)
Retained earnings	\$	590,126	\$	1,197,864	\$	1,845,040	\$	2,513,790	\$	3,241,766
Total equity	\$	1,441,709	\$	1,644,288	\$	1,860,013	\$	2,082,930	\$	2,325,589
<b>Total equity and liabilities</b>	\$	<b>1,990,713</b>	\$	<b>2,217,997</b>	\$	<b>2,448,922</b>	\$	<b>2,692,451</b>	\$	<b>2,945,135</b>

**Table 7: Projected Cashflow Statement**

	2021	2022	2023	2024	2025
<b>Operating Cash Flow</b>					
Net Earnings	\$ 590,126	\$ 607,739	\$ 647,176	\$ 668,750	\$ 727,976
Plus: Depreciation & Amortization	\$ 38,932	\$ 71,251	\$ 105,599	\$ 119,827	\$ 100,363
Less: Changes in Working Capital	\$ 881,028	\$ 39,646	\$ 29,288	\$ 33,249	\$ 21,459
<b>Cash from Operations</b>	\$ (251,970)	\$ 639,343	\$ 723,487	\$ 755,328	\$ 806,880
<b>Investing Cash Flow</b>					
Investments in Property & Equipment	\$ 564,288.79	\$ 338,573.27	\$ 225,715.52	\$ -	\$ -
<b>Cash from Investing</b>	\$ 564,288.79	\$ 338,573.27	\$ 225,715.52	\$ -	\$ -
<b>Financing Cash Flow</b>					
Issuance (repayment) of debt	\$ -	\$ -	\$ -	\$ -	\$ -
Issuance (repayment) of equity	\$ (393,417)	\$ (405,159)	\$ (431,450)	\$ (445,833)	\$ (485,317)
<b>Cash from Financing</b>	\$ (393,417)	\$ (405,159)	\$ (431,450)	\$ (445,833)	\$ (485,317)
Net Increase (decrease) in Cash	\$ (1,209,675.74)	\$ (104,389)	\$ 66,321	\$ 309,495	\$ 321,563
Opening Cash Balance	\$ 1,245,000.00	\$ 35,324.26	\$ (69,065)	\$ (2,744)	\$ 306,751
<b>Closing Cash Balance</b>	\$ 35,324.26	\$ (69,065)	\$ (2,744)	\$ 306,751	\$ 628,314

**Assumptions**

1. Revenues indicated are based on the year sales were made irrespective whether they have been wholly or partially realized.
2. Expenses indicated are based on the year they were made irrespective of whether they have been paid fully or not

**Table 8: Business Ratios**

Ratio/Year	2021	2022	2023	2024	2025
Return on equity ratio	0.79	0.81	0.87	0.90	0.90
Gross Profit Margin (%)	23	23	24	24	25
Current ratio (times)	2.67	2.48	2.61	3.12	3.64

**Table 9: Internal Rate of Return**

Internal Rate of Return	
Outflow	(USD 1,245,000)
2021	USD 983,543
2022	USD 1,012,898
2023	USD 1,078,626
2024	USD 1,114,583
2025	USD 1,213,293
IRR	78%

**Notes**

1. USD 1,245,000 represents project cost
2. Figures from 2021 to 2025 are profit after tax for respective years.

## RISK ANALYSIS AND MITIGATION MEASURES

All possible risks that would have negative effect on the operations and the future of the company have been evaluated. The risks are assumed to result from mismanagement of operations of quarrying and natural disasters. The risks are rated High, Medium and Low depending on their possible occurrence.

The risks are analyzed in the following matrix:

No	Type of Risk	Rating of Risk	Mitigation
1	The project may negatively impact the environment	Low	Carry out an Environmental Impact Assessment and conscientiously implement policies and regulations on environmental protection.
2	High consumption of energy may push up cost of production and lead to loss	Medium	Deliberately implement energy conservation policy and adopt energy-saving measures.
3	Breakdown of machine may affect production	Low	Put in place preventive maintenance schedule
4	Turnover of skilled technicians shall affect the smooth running of the factory	Low	Implement good HR policies by providing incentives, training and job enrichment.

## PROJECT JUSTIFICATION

Justification of this project is based on the it fits well with various national policies and strategic frameworks such as the National Strategy for Growth and Reduction of Poverty (MKUKUTA 2), Tanzania Integrated Industrial Development Strategy 2025, Tanzania and Tanzania Vision 2025 and the UN Sustainable Development Goals.

The growth of the Tanzania economy remained high and among the fastest growing economies in sub-Saharan Africa. According to Annual Report of the Bank of Tanzania for 2018/19, real gross domestic product grew by 7.0% in 2018 compared with 6.8% in 2017. The main drivers of this growth were construction, agriculture and transport, altogether accounting for more than half of the total growth. This project falls within the construction industry – which is one of drivers of the growing economy of Tanzania. By supporting this important sector, the project will be doing the right thing.

This project will create 600 direct jobs (two shifts) and an estimated 4,000 indirect jobs – given secured tenders and gradual company growth. Job creation is an important component of the National Strategy for Growth and Reduction of Poverty. Therefore, by investing in this sector the project will be making an important contribution in the economy.

This project augurs well with National Strategy for Growth and Reduction of Poverty that encourages value addition and reduction of imports. The Sustainable Industrialization Development Policy 2020 guides the private sector to take a leading role in the industrialization of the country.

In 2015 the United Nations Organization of which Tanzania is a member proclaimed the Sustainable Development Goals (SDGs). These are a set of 17 goals the fundamental objective of which is to end poverty and hunger by 2030. The SDGs have been built on the success of the MDGs (2000 – 2015). This project will subscribe to Goals No 1, 7 and 9.

**Goal No 1** – End Poverty in all its forms everywhere by 2030.

This is a concerted effort that calls for multiple stakeholders nationally and globally to make their respective contributions. By creating 600 direct jobs and about 4,000 indirect jobs, this project will be immensely making its contribution to this goal.

**Goal No 7** – Ensure access to affordable, reliable and sustainable energy

The production of concrete electric poles will immensely contribute to the massive electrification program being undertaken by both TANESCO and REA.

**Goal No 8** – Decent Work and Economic Growth

This goal seeks to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all. An important part of economic growth is that people have jobs that pay enough to support themselves and their families. Again, contribution to this goal shall be realized through job creation.

## IMPLEMENTATION SCHEDULE

The implementation schedule for this project shall start immediately after obtaining the Tanzanian Investment Center Certificate of Incentives. Machinery and allied equipment are awaiting procurement after incentive. Shipment is expected to be made end of March to Mid-April. Port clearance and transportation to Dodoma will take place in May. Installation of machinery and equipment shall be carried out in April. Training of operators will be done during installation. Test runs will take place in May and commercial operations commencing in June 2021.

The detailed implementation schedule is shown in following table; -

**Table 11: Implementation Schedule**

Year	2021						
	March	April	May	June	July	Aug	Sept
1. Submit application for TIC Certificate							
2. Obtain TIC Certificate							
3. Carry out EIA and obtain certificate							
4. Identification and selection of contractor							
5. Contractor's mobilization							
7. Civil works constructions							
8. Order of machinery & equipment							
9. Shipment of machinery							
10. Recruitments of operators							
11. Recruitment and arrival of engineers							
12. Recruitment of operators							
13. Completion of civil works							
14. Port clearance and transportation to site							
15. Installation of machinery							
16. Recruitment of management							
17. Training of operators							
18. Commissioning and test runs							
19. Start of commercial operations							

## CONCLUSION AND PROFESSIONAL OPINION

- i. The return on equity ratio indicates the amount of net income realized as a percentage of shareholders' funds invested into the business. Generally, the ratio is attractive. It is at 0.79 in 2021. Subsequently, the ratio rose from 0.81 in 2022 to reach 0.97 in 2025;
- ii. The projected cash flow statement shows healthy positive closing balances throughout the planning period. A closing balance of USD 35,324 is registered in year 2021. This rises steadily and reaches USD 628,314 by the year 2025. This indicates that the company will have sufficient cash cover to pay suppliers and other obligations as and when they fall due;
- iii. The balance sheet projections demonstrate a favorable state of affairs for the company throughout the projected period. Projections indicate that current liabilities would be adequately covered by current assets. Assets are expected to be USD 1,990,713 and 2,217,997 in 2022. Value of assets shall continue to remain strong and close up at USD 2,945,134 in 2025;
- iv. Throughout the period being evaluated, the Internal Rate of Return (IRR) is quite attractive at 78%. This is attributable to high generation of revenue and profitability of the company. Net assets are financed by shareholders' capital and retained earnings. The build-up of net worth is attractive from first year of operations. This is attributable to availability of funds to finance working capital requirements;
- v. Gross margin on sales is of an average of 23.8% which is quite competitive within the manufacturing industry. Given the high level of sales, the 23.8% margin is quite sufficient to finance overheads;
- vi. Current ratio is on average 2.9 times, implying a high level of liquidity;
- vii. Having made the observations cited above and having made the various analyses, we unreservedly state that this project is economically feasible and financially viable and strongly recommend the promoters should proceed with implementation of the project.

