

TANGA CONCRETE POLES LIMITED

PRE-STRESSED CONCRETE POLES PRODUCTION PROJECT-SEGERA,
HANDENI DISTRICT, TANGA REGION, TANZANIA

BUSINESS PLAN

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PRE-STRESSED CONCRETE POLES PRODUCTION PROJECT-SEGERA, HANDENI DISTRICT, TANGA REGION, TANZANIA

1. EXECUTIVE SUMMARY

Project Description:	The project entails construction and operating pre-stressed concrete poles production plant to produce concrete poles for onward selling to Tanzania Concrete Poles Manufacturing Company Limited (“TCPM”).
Products:	Pre-Stressed Concrete Poles with the following lengths (size): <ul style="list-style-type: none">• 8 meters (155mm)• 9 meters (190mm)• 10 meters (190mm)• 12 meters (190mm)• 13 meters (190mm)• 15 meters (190mm)• 17 meters (288mm)• 17 meters (235mm)
Type of Project:	Manufacturing/Construction Project
Project Proponent:	Tanga Concrete Poles Limited (“TCP”)
Target Customers:	Electrical Power Supply and Telecommunication Companies.
Target Markets:	Tanzania and Export markets: Export Markets will be Democratic Republic of Congo, Rwanda, Burundi, Kenya, Zanzibar, Zambia and Uganda
Shareholders:	The shareholders of the company are as follows: <ul style="list-style-type: none">• Luka Hakim Neghesti-55%• Levis Paul Nghulyungu-20%• Mohamed Musa Chambo-20%• Augustino Mhando Samwel-5%

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Project Location:	Segera, Handeni District, Tanga Region, Tanzania.
Total project cost:	TZS 7.823 Billion
Financing Requirement:	a. Long Term Loan-TZS 3.862 Billion (50%) b. Owners' Equity: TZS 3.861 Billion (50%)
Plant Capacity:	44 Concrete Poles/Day of various lengths and sizes
Payback Period:	4 Years and 5 Months
Internal Rate of Return (IRR):	23.76%
Net Present Value (NPV):	TZS 2.27 Billion
Project Rationale:	Increase demand for concrete pole due to their reliability, durability and environment protection by replacing wooden poles due to increase in electrification and telecommunication.

2. INTRODUCTION

2.1 Company Background

Tanga Concrete Pole Limited ("TCP") is a private limited liability company incorporated on 8th May 2024 under the laws of the United Republic of Tanzania and issued with Certificate of Incorporation No. 174457409. TCP is owned by the following shareholders

- Luka Hakim Neghesti - 55%
- Levis Paul Nghulyungu - 20%
- Mohamed Musa Chambo - 20%
- Augustino Mhando Samwel - 5%

The authorized and fully paid-up share capital TZS 100 million divided into 1,000 shares of TZS 100,000 each.

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3. THE PROJECT

3.1 Purpose of Business Plan

This business plan has been developed by Tanga Concrete Poles Limited (“TCP”), a Limited Liability Company incorporated in the United Republic of Tanzania. The purpose of this business plan is to raise loan funds amounting to TZS 3.862 billion from bank to part finance establishment and operating Pre-stressed concrete pole production project. The funds will be used for the following purposes as indicated in the table below:

Table 1: Details of Financing Requirement

ITEMS TO BE FINANCED BY LOAN		
s/n	Items from Bills of Quantity	Amount in TZS
1	Element no. 2: frame for concrete poles factory	375,752,000.00
2	Element no. 4: roof for concrete poles factory	502,664,000.00
3	Element no. 5: spinning machine base, curing pit chamber and testing platform	221,887,600.00
4	Element no. 6: finishes for concrete poles factory	51,084,000.00
5	Element no. 7: machine and equipment	2,174,117,360.50
6	Element no. 8: admiration blocks	189,000,000.00
7	Element no. 9: access road and court yard	171,070,000.00
8	Bill No 1 - Preliminaries	60,000,000.00
9	Bill No 3 - pc and provisional sums	116,150,000.00
GRAND TOTAL		<u>3,861,724,960.50</u>

The project implementation has started and so far the shareholders have acquired 203,192 Square Meters of land equivalent to 50 acres. The shareholders will contribute TZS 3,861,517,573 in the project to finance the following items as indicated in the table below

Table 2: Details of items to be financed by promoters' funds

ITEMS TO BE FINANCED BY PROMOTER EQUITY		
s/n	Items	Amount in tzs
1	Element no. 1: substructure concrete poles factory	577,819,800.00
2	Element no. 3: walls for concrete poles factory	76,540,000.00
3	Element no. 9: exchange room and toilets	46,200,000.00
4	Element no. 9: generator room	18,850,000.00
5	Initial Working Capital-1 month	1,274,649,773.33

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6	Land-203,192 SQM	1,320,748,000.00
7.	Pre-operation	140,250,000.00
8	Furniture & fittings	57,750,000.00
9	Motor vehicle-ford ranger	184,250,000.00
10	Transport expenses for Machinery-Dar -Segera	48,960,000.00
11	Port clearing expenses	115,500,000.00
Grand total		<u>3,861,517,573.33</u>

3.2 Project Summary

TCP is planning to set up and operate concrete poles production plant at Segera, Handeni District, Tanga Region. The project will have capacity to produce 44 concrete poles per day with various length of 8 meters, 9 meters, 10 meters, 12 meters, 13 meters, 15 meters and 17 meters. The concrete poles will be sold to Utilities companies including TANESCO and Telecommunication Companies. TCP has signed 15 years Joint Venture Agreement with Tanzania Concrete Poles Manufacturing Company Limited (“TCPM”), the subsidiary company of TANESCO dealing with manufacturing and supplying concrete pole in Tanzania. In the joint venture agreement, has outlined the responsibilities of two parts as follows

- a. **Tanzania Concrete Poles Manufacturing Company Limited (TCPM) will be responsible for:**
 - Providing market for a minimum 2,600 poles per month (equivalent to 31,200 concrete poles per annum) to Tanga Concrete Poles Limited.
 - Providing quality assurance services during production of concrete poles at the factory
- b. **Tanga Concrete Poles Limited (“Investor”) will be responsible for:**
 - Undertake necessary architectural and engineering design and construction drawing for the concrete pole factory as specified by TCPM
 - Import machineries for manufacturing concrete poles and other related products approved by TCPM
 - Provide a suitable land with minimum area of 11,000 SQM
 - Construct or own factory as per specified time and provide access to TCPM for monitoring construction progress

TCP will use pre-stressed wires, cement, aggregates, sand, binding wires and supporting rings as the main raw materials to produce concrete poles. The proposed concrete pole

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production plant will have capacity to produce 44 poles per day equivalent to 13,728 poles per annum which will be all sold to TCPM.

The strong business structure will lead into deploying the best means of sourcing and recruiting the best staffs for the project. It is not only believing in recruiting the best staff but in ensuring that they are in tune with company vision and objectives and are committed to achieve the goals of a company.

TCP believes in ensuring that employees are not only productive but that they remain happy whilst carrying out their tasks. It is for this reason that TCP has created a unique welfare package for them that is the best in the industry amongst the category. Also, TCP will put in place policies that will allow for the continuous trainings of employees in order to enhance their skills to be efficiency and effective in the industry.

3.3 Products Description

Spun concrete pole are designed to provide reliable strength, unsurpassed durability and long service life. Each pole is made as per order, customized by length, strength and customer specifications including mounting holes, apertures, grounding etc.

The market for spun concrete poles is huge in Tanzania and the rest of Africa especially in electrical power and telecommunication industries. This is due to shifting from wooden poles to the use of spun concrete poles as one of the measures to protect and preserve the environment. Concrete poles are efficiency, cost-effectiveness and durable compared to wooden poles.

3.4 Vision, mission and objectives

3.4.1 Vision

To become the largest producer and supplier of high-quality concrete poles to East and Central African Countries.

3.4.2 Mission

To become the largest supplier of high-quality concrete poles in Tanzania producing concrete poles at the highest standards of industrial practices, creating sustainable value to shareholders, employees, suppliers, customers, business partners, host communities and environment sustainability by optimizing the company's resources.

3.4.3 Objectives

- To generate revenues of TZS 13.170 billion and net profit of TZS 791.169 million in the first year once project starts production at 70% capacity utilization. Revenues and net profit are projected to grow to TZS 21.725 billion and TZS 4.227 billion respectively in year 10 as capacity utilization increases.

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- To create employment of at least 70 people for unskilled, skilled and professionals' people in the concrete pole production project.
- To capture adequate market, share of at least 10% for East African Countries in the concrete pole production industry.
- To generate average return on investment of at least 18% per annum
- To contribute revenues to the country's economy through payment of taxes and other levies of at least TZS 350 million per annum once concrete poles production plant start productions.

3.5 SWOT Analysis

3.5.1 Strengths

- Competent managerial personnel possessing adequate skills and experience in concrete pole production business will be recruited.
- The company has signed joint venture agreement with TCPM for supplying at least 2,600 concrete poles per month. This provide market assurance of concrete poles produced by the project. TCPM will also provide quality assurance of concrete poles produced by the company
- The shareholders will use their local knowledge and maintaining firm and good relationship with TCPM which will be instrumental in the market penetration and overall product acceptance.
- The company will be able to maintain good relationship with TCPM by producing good quality concrete poles and being able to deliver the same on time and at competitive price. This will be the motto of the company to enable it sustain its business.
- The shareholders have vast experience in business management for more than 10 years as they are operating other building materials businesses.

3.5.2 Weakness

- Establishing concrete poles production project requires a relatively large capital investment. International imports of concrete poles from countries with surplus could drive prices down drastically if the Government of Tanzania fails to step in and apply the appropriately imports duties to protect the local producers.

3.4.3 Opportunities:

- There is a high demand for concrete poles in Tanzania as well as in East African and SADC Countries. Demand for concrete poles is growing due to increase electrification, telecommunication and environment protection replacing wooden poles which causes deforestation.
- The project is supported by the Government of Tanzania aiming at promoting investments in industries particularly for projects which conserve environment and provide through electricity supply and communications services.

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- The Government of Tanzania through TANESCO has formed TCPM who partners with local companies including TCP to produce high quality concrete poles.
- There are sufficient raw materials to produce concrete poles available locally at competitive prices.

3.4.4 Threats:

- Competition is expected from the local and imported concrete poles which may affect the project market size.
- The East Africa community common market can also act as a threat to small and new industries especially in the Tanzania market.

3.4.5 Key Success Factors

- The Government of Tanzania through TANESCO is emphasizing people to invest in concrete poles production project in order to curb deforestation by replacing wooden poles. Furthermore, concrete poles are durable, reliable and has long life span.
- Recruiting experienced management team with a history of success to manage concrete poles production project under the guidance of TCPM.
- There is a high demand for concrete poles in Tanzania estimated at 100,000 poles per annum. Demand is projected to increase 200,000 poles by 2050.
- TL has already established a ready and reliable market with TCPM who will buy all concrete poles produced by the project and will also provide quality assurance services to the project.
- Land for the project is already in place

4. MARKET ANALYSIS

4.1 Customers

TCP will produce concrete poles and sells them to TCPM under the 15 years' joint venture agreement signed by both parts. The concrete poles will be used by telecommunication and utility companies including TANESCO for power supply and TTCL.

4.2 Market Valuation

The market for concrete spun poles is huge and the existing producers are not capable to meet demand for concrete poles in Tanzania. Tanzania Electrical Supply Company (TANESCO) is a leading buyer and consumer of concrete spun poles in the country.

Tanzania Utility poles market generated a revenue of USD 55.5 million in 2023 and is expected to reach USD 96.2 million in 2030. Tanzania concrete poles market is expected to grow at CAGR of 8.2% from 2024 to 2030. In term of segment, transmission and distribution poles are the largest revenue generating product.

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Demand for concrete poles by TANESCO per region vary from one region to another because there is different demand for electricity in different regions in Tanzania.

Other consumers of concrete spun poles include transmission, distribution and telecommunication lines including private companies and industries, city and district councils for street lighting.

TTCL installs both mobile and landline line networks, therefore requires concrete spun poles for transmission and distribution of landline telecommunication networks. This company serves as second market target with a projection of an annual consumption of over TZS 14 billion after TANESCO who are potentially will give market to generate over TZS 22 billion. The rest of the consumers for concrete spun poles are likely to give the market worth TZS 1 billion.

4.3 Marketing Strategy

The company's marketing strategy is hinged on providing high quality concrete poles as well as additional related services to customers. It is intended to cultivate a loyal customer base where not only increase customer retention but also attract new customers. It is also intended to engage in massive publicity through website as well as forums so as to garner more customers.

The company will deploy the following marketing strategies to sell concrete poles in the local and international markets:

- Introduce concrete poles business officially to dealers, distributors, wholesalers and retailers both locally and internationally by meeting/communicating with them and telling them the benefits they stand to gain in using the company products/services.
- Make use of official website in promoting concrete poles project to ensure that it tops the online search for potential customers.
- Make use of social media platforms such as LinkedIn, twitter and Facebook to promote products.
- Meeting and exceeding the expectations of clients and through improving the performance of concrete poles in the market.
- Using attractive billboards and banners to ensure that potential customers are aware of company products.
- Ensure that the company deploy direct marketing approach to customers.
- Using global strategic partners to market concrete poles internationally.

4.4 Selling and Distribution

The distribution strategy of the project seeks to ensure that the products are in excellent condition for industrial uses and delivery of quantities and items required in accordance with contracts/order concluded and compliance with delivery dates. Taking into account

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the nature of the products the company will follow the method of direct distribution (the project to consumer). The most important characteristic of this method is the higher quality that can be achieved of the project, which will be more than that achieved in the case of following distribution channels through agents, as well as the ability to build good relations with customers and consolidate them to serve the marketing parties of the project and improve the level of sales.

4.5 Promotion

The promotion strategy aims at increasing the awareness of the targeted customers of the project products in order to maximize demand and gain the estimated market share of the project. The following table shows the content of the promotional messages to be addressed to the target customers and the proposed promotional means in delivering marketing messages to them.

Table 3: Promotion Message and Means

Target	Promotion Message	Promotion Means
All Target Customers	<ul style="list-style-type: none"> a. Competitive Price for the products and promotion incentives can be provided b. High quality products c. Ability to provide in quantities and time required d. A diverse packing mix of products of the required size 	<ul style="list-style-type: none"> a. Personal meeting and direct contact with customers' decision makers b. Promotion materials c. Technical and Financial presentation and offers Website d. Means of social communication

4.6 Competition

In Tanzania, there are more than five concrete poles production companies including Izunga Concrete Poles Limited and others. The company's competitive advantage hinges on the 15 years Joint Venture agreement signed with TCPM, to supply a minimum 2,600 concrete poles per month. In addition to that, TCPM will provide technical support in the production process including quality assurance for concrete products.

5. TECHNICAL ASPECTS

5.1 Technology

The proposed technology for producing concrete poles will be sourced from China. The manufacturer of concrete pole has over 20 years' experience in the industry. The supplier

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has installed various turnkey projects in Africa. The technology to be involved will have the following production process for concrete poles

- Internal Steel Reinforcement
- Mold Set Up
- Concrete Batching
- Pre-stressing
- Spinning

5.2 Technical Arrangement

The project implementation arrangement will be under turnkey contract whereby the manufacturer of concrete poles production plant will supply, install, trial running, commissioning and training the personnel. Necessary agreement will be executed between company and the manufacturer by incorporating all essential features to minimize technical and project implementation risks:

Some of the main features which will be included in the turnkey contract are as follows:

- Taking out successfully trial run and commissioning of the project
- Acceptable quality of the final products in the market
- Imparting necessary training to employees in the production process
- Taking out successfully commercial production for the project
- Penalty clause for non-performance of the project
- Performance guarantee for a specified number of years after a commercial production

5.3 Plant Capacity

Given demand for concrete poles and planned technology and investment, the envisage plant is set to produce 44 concrete poles of various size per day equivalent to 13,728 poles per annum. Assuming that the envisage plants starts operation by 2026/27, the above capacity is 44% of quantity demanded by TCPM of 31,200 poles per annum. Based on this production capacity, the envisaged plant is categorised as a medium scale concrete pole production project. The promoters' choice of this scale of operation is based on the following factors:

- a. Adequate capacity to manage implementation and operate the project.
- b. TCPM is capable to buy all concrete poles produced by TCP.
- c. At this scale of production, the project will operate commercially, financially, technically and economical feasible

5.4 Production program

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The production program is scheduled based on the consideration that the envisaged plant will work for 312 days in a year, where the remaining days will be holidays and for maintenance. During the first year of operation the plant is assumed to operate at 70 percent capacity and then at 75 percent in the 2nd year and 80 percent in the 3rd year. The capacity will grow beyond 80 percent starting from the 4th year. This consideration is developed based on the assumption that concrete poles that will be produced will be sold to TCPM. Further to that all factors of production including power, labor and raw materials supply are assumed to be efficiency.

5.5 Implementation schedule

The company is seeking for loan amounting to TZS 3.861 billion to implement and operate concrete pole production plant. The project implementation schedule is indicated below.

Table 4: Start up Schedule

Sn	Particular/Activity	Time frame (Months)
1	Approval of Credit Facility	2 Months
3	Disbursement	1 Month
4	Civil works and factory construction	6 Months
4	Acquiring machinery and Installation	6 Months
5	Trial running and Commissioning	1 Month
7	Starting Commercial Production	2 Months
	Total	18 Months

6. ORGANIZATION STRUCTURE AND MANAGEMENT

6.1 Organization Structure

The organization structure will be staffed with eligible personnel with corresponding authority and responsibility for achievement of goals and objectives of the project. The highest body will be Board of Directors responsible for handling policy issues, approving strategic plan and follow up activities of Managing Director.

The Managing Director is accountable to the Board of Directors and responsible for planning, executing, monitoring and controlling the whole activities of the project. The Managing Director will be responsible for management of day to day business operations and will lead the following departments

a. Administration Department: This is made up of the following offices

- Managing Director Office
- Human Resource office
- Finance office
- Procurement office
- Legal services office
- Internal audit services

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- Engineering and Planning Office
- b. Production Department: This is made up of the following Sections
- Administration Section
 - Mechanical Section
 - Production section

6.2 Governance Structure

The project will operate as a medium scale concrete poles production plan. Since the scale of operation is relatively medium, the diversified Board of Directors with Board Charter will be formed to manage the project. The Board of Directors will be involved with numerous responsibilities among others including:

- Oversee management, finances, and quality;
- Set strategic direction of the company;
- Build community relationships;
- Establish ethical standards, values, and compliance; and
- Select a Managing Director and monitor his or her progress.

6.3 Staff Plan

The total manpower required for the project is 70 people for administration and production with a total wage bill of TZS 100,520,000 per month. The table below indicates staff plan for the project and the wage bill per month

Table 5: Details of Human Resource

STAFFING COST				
S/NO	DESIGNATION	PROPOSED NUMBER	ESTIMATED MONTH SALARY	TOTAL ESTIMATED MONTHLY SALARY
A. HEAD OFFICE (ADMINISTRATION)				
i). Managing Director Office				
1	MANAGING DIRECTOR	1	7,500,000	7,500,000
2	PERSONAL SECRETARY	1	735,000	735,000
5	DRIVER	1	735,000	735,000
ii). Human Resources Office				
1	MANAGER HUMAN RESOURCES	1	3,000,000	3,000,000

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2	HUMAN RESOURCES OFFICER	1	1,535,000	1,535,000
3	RECORDS ASSISTANT	1	735,000	735,000
iii). Finance Office				
1	MANAGER FINANCE	1	3,000,000	3,000,000
2	ACCOUNTANTS	2	1,915,000	3,830,000
3	ACCOUNTS ASSISTANTS	1	1,535,000	1,535,000
4	TRANSPORT OFFICER	1	1,535,000	1,535,000
5	DRIVERS	3	735,000	2,205,000
iv) Procurement Office				
1	MANAGER PROCUREMENT	1	3,000,000	3,000,000
2	PROCUREMENT OFFICERS	3	1,535,000	4,605,000
3	SUPPLIES OFFICER	2	1,535,000	3,070,000
v). Legal Services Office				
1	MANAGER LEGAL SERVICES	1	3,000,000	3,000,000
2	LEGAL OFFICERS	1	1,500,000	1,500,000
vi). Internal Audit Office				
1	INTERNAL AUDITORS	2	1,500,000	3,000,000
vii). Engineering and Planning				
1	HEAD OF ENGINEERING AND PLANNING	1	3,000,000	3,000,000
2	PLANNING ENGINEER	1	2,000,000	2,000,000
3	QUALITY CONTROL ENGINEER	2	2,000,000	4,000,000
4	ELECTRO MECHANICAL ENGINEER	1	2,000,000	2,000,000
5	ICT OFFICER	1	1,500,000	1,500,000

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Total Head Office Staff Establishment		30		57,020,000
B. CONCRETE POLES FACTORY STAFF (PRODUCTION)				
i). Administration Section				
1	FACTORY MANAGER	1	3,000,000	3,000,000
2	QUALITY CONTROL ENGINEER	2	2,000,000	4,000,000
3	PERSONAL SECRETARY	1	735,000	735,000
4	DRIVERS	2	735,000	1,470,000
5	ACCOUNTANT	1	1,915,000	1,915,000
6	ACCOUNTS ASSISTANTS	1	1,535,000	1,535,000
7	STORES OFFICER	3	1,535,000	4,605,000
8	SUPPLIES OFFICER	2	1,535,000	3,070,000
9	TRANSPORT AND LOGISTIC OFFICER	2	1,535,000	3,070,000
10	STORES ASSISTANTS	2	1,200,000	2,400,000
ii). Mechanical Section				
1	MECHANICAL TECHNICIANS (MECHANICAL SUPERVISOR)	1	1,000,000	1,000,000
2	ARTISANS (ELECTRICAL)	2	735,000	1,470,000
3	ARTISANS (MECHANICAL)	3	735,000	2,205,000
iii) Production Section				
1	CIVIL TECHNICIANS (PRODUCTION SUPERVISORS)	2	1,000,000	2,000,000
2	ARTISAN (MASONRY)	2	735,000	1,470,000

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3	ARTISAN (MECHANICAL OPERATORS) Crane (2), Boiler (1), Spinning (1) Batch plant (2), Ring forming (1), Ring welder (1), Backhoe (1), Tensioning (1), But-heading (2), Cage forming (2).	13	735,000	9,555,000
Total Factory Staff Establishment		40		43,500,000

The envisaged project will create 70 jobs and various taxes. The professionals, support staff and unskilled staff for the envisaged project will be recruited locally.

Training of key personnel shall be conducted in collaboration with the suppliers of the plant. The training will primarily focus on the production technology and machinery maintenance

7. INVESTMENT COST AND FINANCING PLAN

7.1 Investment cost

The total project cost is made up of the following items

- Land
- Building & Civil Works
- Plant & Machinery
- Furniture and Fittings
- Motor Vehicles
- Pre-operative expenses for project implementation
- Initial Working capital

Table 6: Details of Investment Cost

Item	Existing Investment-TZS	Addition Investment-TZS	Total Investment-TZS
Land-203,192 SQM	1,320,748,000		1,320,748,000
Building & Civil Works		2,407,017,400	2,407,017,400

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Plant & Machinery		2,338,577,361	2,338,577,361
Motor Vehicle		184,250,000	184,250,000
Furniture, Fittings and Computers		57,750,000	57,750,000
Total Fixed Assets	1,320,748,000	4,987,594,761	6,308,342,761
Pre-Operation Expenses	90,000,000	50,250,000	140,250,000
Initial Working Capital		1,274,649,773	1,274,649,773
Total Project Cost	1,410,748,000	6,312,494,534	7,723,242,534

Table 7: Details of Financing Plan

Source	Existing Funds-TZS	Addition Funds-TZS	Total Funds-TZS
Promoters Funds	1,410,748,000	2,450,769,573	3,861,517,573
Loan		3,861,724,961	3,861,724,961
Total Financing	1,410,748,000	6,312,494,534	7,723,242,534

Debt to Equity Ratio: 50% by 50%

8. ENVIRONMENT IMPACT

In adherence to regulations, the company obtained environment clearance from National Environment Management Council regarding concrete poles production project. The following environment factors have been considered in order to protect environment as well as to comply with other regulatory bodies including OSHA after commencement of production.

8.1 Factory Design

The factory designs are planned to not only be environmentally friendly but also aesthetically appealing. The facility will comprise of processing plant, office space, warehouse, an open space and other facilities which will be designed to allow adequate ventilation and lightning to minimize energy consumption.

8.2 Plants, Machinery and Equipment

The equipment designs, make and capacity ratings have been carefully selected based on their suitability and minimal environmental emissions as advised by industrial experts.

8.3 Waste Disposal

The production process flow is environmentally friendly as the waste will be controlled and conserved.

9. PROJECT RISK AND MITIGATION

9.1 Market risk

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Market Risk will occur, for example, when the prices for concrete poles fall; company market share drops or in worst case scenario the demand for poles ceases. The mitigation of this risk is as follows:

- a. The company has signed a 15 years Joint Venture agreements/contract with TCPM for supplying at 2,600 poles per annum.
- b. Concrete poles is essential for transmission and distribution of power and other utilities services. Demand for concrete poles is increasing due to increase in electrification and distribution of electrical powers.

9.2 Operating risks

The operating risk occurs due to inability to economically achieve the desired production rate caused by poor technology selected, inexperience and quality of staff applied to the project. The operating risk is mitigated as follows:

- Technical risk: The supplier of concrete pole plant and TCPM will provide a guarantee that the technology will work for at least and provide training to local staff and quality assurance as well. In addition to this, the technology to be applied in the project is proven and has been used in various countries in the world including Tanzania.
- Management risk: The Company has identified qualified and experienced management team to run the project.
- Cost risk: This includes the increase in cost of labour, materials, productivity and operating expenses. This will be controlled by employing competent financial manager/controller to oversee financial management for the project.

9.3 Environment risk

The risk is caused by emission from the daily operation of the project. The promoters have consulted National Environment Management Council (NEMC) in order to get guideline to protect environment. The environment management plan will be implemented to comply with environment protection.

9.4 Completion risk

This Project is susceptible to the completion risk (also known as Construction, Development, or Cost-Overrun risk) because it involves construction and installation of plant. The project is planned to implemented under Turnkey Contract to mitigate completion risk

9.5 Infrastructure risk

This risk occurs when the project is located in place where there is poor transportation networking and interconnect causing high delivery cost and selling price of concrete poles. This risk is mitigated by the fact the project is located at Seger, Handeni District, Tanga Region which has the following transport facilities for easy delivery of products to the target market:

- Railway
- Road

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In addition to that water and electricity to be used for concrete poles production process are readily available at the project site.

10 LEGAL FRAMEWORK, ECONOMIC AND SOCIAL FACTORS

10.1 Legal Framework

To set up and operate commercial concrete poles production project require the following permits and certification

- OSHA
- Tanzania Bureau of Standards-TBS
- Industrial licenses
- Business licenses
- Local Government Authority Approvals

The company has liaised with the relevant authorities who are responsible for issuing permits, approval and certificates in order to comply with project implementation successfully. Most of the permit and certifications have already been obtained and the rest will be issued after commencement of project operation once the final products are produced, tested and certified. It was advised by the authorities who issues permits and certificate that the company needs to involve them from project design stage until it is commissioned in order to comply with their standards.

10.2 Economic and Social Impact

The project promotes social-economic goals and objectives stated in the strategic plan of Tanzania to be industrialized country with the following benefits:

- The project is found to be financially viable and generate profit within the project life span. Such results induce the project promoters to reinvest the profit which therefore increase the investment magnitude in the region and hence increase employment opportunities and taxes.
- In the project life under consideration, the region will collect various taxes. Such results create additional fund for the government that will be used in expanding social and other basic services.
- The project will support electrification and communication services in Tanzania.
- Using concrete poles will support environment protection in replacing wooden poles.
- The project is expected to create employment opportunity to several citizens of the country. It will provide employment of 70 professionals as well as support staff.
- The project has multiplier effect to the people of Segera surrounded by the project.

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11 FINANCIAL PROJECTIONS

11.1 Financial Parameters

The attached Microsoft excel was used to develop the financial model for the concrete pole production project whereby the base case scenario was used to test viability of the project. The detailed financial projections including key assumptions, projected income statement, cash flow statement, balance sheet etc. are attached to this report.

11.2 Financial Evaluation

a. Profitability:

According to the projected income statement attached in the annex part, the project will generate profit of TZS 791.169 million beginning from the first year of operation and it further increases in the subsequent period as plant capacity utilization increases. This shows that the project profitable

b. Payback period:

Investment cost and cashflow are used in estimating the project payback period. The projects will payback fully the initial investment less working capital in 4 years and 5 months.

c. Internal Rate of Return, Net Present Value and Break Even

- Internal Rate of Return (IRR) discounted at 18% is 23.76%
- Net Present Value (NPV) is TZS 2.270 billion
- Average Break Even capacity is 50.77%

12. CONCLUSION AND RECOMMENDATION

The Company is setting up and operating concrete poles production project in Segera, Handeni District, Tanga Region, Tanzania. The promoters are confidence that the project will operate successfully of which investors and lenders are assured their return of capital to be invested due to the following reasons

- The shareholders have adequate experience and knowledge to manage business and competent management team will recruit for managing project.
- Demand for concrete poles is growing due to its durability and environment friendly replacing wooden poles.
- The project will be implemented under Turnkey contract to minimize construction and operating risk
- The company has ready market to supply at 2,600 concrete poles to TCPM who will also provide quality assurance for the products
- The project location has necessary infrastructure including electricity, transport facilities and other utilities to facilitate concrete poles production project.

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- The company has obtained all necessary permits and approvals from the Government to implement and operate the project.
- The project is technically, financially and commercially feasible and hence worth for implementing.