NYANZA ROAD WORKS LIMITED

FEASIBILITY STUDY

FOR THE

CONSTRUCTION OF THE INDUSTRIAL PARK

MAY 2022

1.0 INTRODUCTION

1.1 BACKGROUND

This study covers the establishment of an industrial park by constructing warehouses which will be leased to various investors/companies for carrying manufacturing activities in Tanzania. The company vision is to provide economic growth opportunities, such as job creation, business retention and attraction and investment extraction.

Industrial parks can be used to accelerate economic development and also are useful instrument for attracting investment, fostering technological learning and innovation, and for creating jobs. Industrial parks when completed attract innovative businesses leading to both more jobs and a larger tax base and also will offer an environment where local and international firms can interact with a particular Centre of knowledge creation for mutual benefit.

2.0 SUMMARY AND RECOMMENDATION

2.1 INTRODUCTION

This report presents the tech-economic and financial analysis on the setting up/operating of industrial park comprising of several warehouses to be constructed for lease to be based in Dar es Salaam. The proposed Fully Serviced Industrial Park will be divided into 3 phases. ***Phase I*** will include Constructing four warehouses with the total area of **15,993sqm*. Phase II***, six warehouses of which will be built on a total area of **12293sqm** and ***Phase III which*** will comprise of five warehouses with a total area of **15,543sqm**. The total builds up area is estimated to be **43,829 sq meters.** The Industrial Park will comprise of common facilities for the use of a group of industries who will be leasing the warehouses for carrying various manufacturing activities. The warehouses to be constructed will be equipped with up to- date equipment and will be supported by well-constructed car park facilities. Nyanza Roadworks Limited is a sponsor of this project and its shareholder/ directors has several years of experience in initiating/running different types of projects.

2.2 MARKETING

The government of Tanzania is embarking on industrialization drive towards middle income economy by 2025 with the aim of job creation and economic growth. The manufacturing sector in Tanzania consists mainly of food processing (24%), textiles and clothing (10%), chemicals (8.5%), and

others, including beverages, leather and leather products, paper and paper products, publishing and printing, and plastics. (*Internet*).

Nyanza Roadworks Limited marketing objective as a fully serviced industrial park is to appeal to potential private sector investors and the whole country as a desirable location in which to invest via either business establishment or relocation.

Dar es salaam which remains the country's commercial and industrial town , is experiencing an increased inflow of investors, factors that influence demand for warehouses in urban center. In Dar es Salaam a well-organized facility found in prime locations are unable to cater to the growing business population and efforts are now directed to private investors like Nyanza Road limited company to construct modern industrial park of several warehousing facilities to keep pace with the economic activities' expulsions.

Nyanza roadworks limited will put in place the marketing strategy of which will be comprehensive, cohesive and cooperative to external and internal marketing and also targeting both inward investment from business prospects outside the country, and internal investment from existing businesses, stakeholders and allies within the area.

2.3 LOCATIONS AND SITE

The warehouses complex will be constructed in phases. The location will be in Plot No.5/2, wazo hill, Kinondoni Dar-es-salaam.

2.4. COMPLEX LAYOUT

The layout proposed is the one deemed appropriate for the roles of warehouses.

2.5 MANPOWER AND TRAINING PROGRAM

Estimated manpower according to the proposed level set up has been estimated at 215 people including 15 expatriates. This again has been derived taking into account the types of activities that are intended to be undertaken. However, when the project is in full swing the no of people to be employed will be reduced as major construction works will cease.

2.6 IMPLEMENTATION SCHEDULE

It is estimated that the project will take about 5 years for the whole phases to be completed once the decision for implementation has been reached.

2.7 INVESTMENT STRUCTURE

The total initial investment in fixed assets and working capital is estimated at USD **18,000,000**. The breakdown of which are as follows:

TABLE 2.1. INVESTMENT STRUCTURE

ITEM	**US$**
Fixed Asset	
Civil Works	12,500,000
Machinery and Equipment	1,700,000
Vehicles	1,400,000
Furniture and Fittings	1,100,000
Pre-Operational Expenses	150,000
Sub total	**16,850,000**
Initial working capital	**1,150,000**
GRANT TOTAL	**18,000,000**

2.8 FINANCING PATTERN

The total initial investment of US $ **18,000,000** shall be financed from the funds generated within the group companies

SOURCE	US $
Fixed Assets Long term Loan (70%) Equity (30%)	 **12,600,000** **5,400,000**
	18,000,000

2.9 ECONOMIC ADVANTAGES

Industrial parks provide an institutional framework, modern services and a physical infrastructure that may not be available in the rest of the country. Buyers, producers, and suppliers can operate in the same location, thus cutting the transaction costs. Firms located in industrial parks, they often use the services of local companies, creating backward and forward linkages and also diffusing economic learning to the wider business community. Industrial parks can also become growth hubs, creating high growth regions and directing national economic development.

On the basis of the above account the analysis has over whelming advantages to the economic activities in the country and proved that the project is financially sound and techno-economically viable. It is hereby recommended that the project be implemented.

3.0 MARKET ANALYSIS

3.1 MARKETING STRATEGY

The industrial park is essentially an operation of local economic development and, therefore faces strong competition from other sites. The industrial park must target future tenants by promoting and marketing the industrial park and its specialized services at national and international events that suits the needs of the tenants. The park managers also need to ensure that firms are maximizing the benefits of proximity to other enterprises, encouraging linkages between them and with service providers of similar organizations existing in local and regional areas. Links can be encouraged by holding regular meetings between innovation organizations and the park developers to share a vision, objectives, mutual knowledge, and to identify future actions. The park may also finance a short-term project between a tenant and an innovation organization in order to launch a longer collaboration.

3.2 Networking

Networking with other industrial parks located in the same area, or at the national or international levels, is important. Networking increases the spectrum of collaboration (sharing of equipment, transport facilities , security etc.), increases visibility for investors, increases the quality of services that industrial parks can provide for tenants, and facilitates the exchange of knowledge and best practice, either in the development of industrial parks or in their management.

3.3 The market

The proposed project which will involve Industrial Park development will be located in Dar es Salaam. The warehouses in the industrial park will be designed to meet the needs of industrial enterprises in Tanzania by offering modern business development services, such as information and Telecommunications. The warehouses when operational, the Costs will be reduced through economies of scale in the provision of common services and facilities. It will enable Buyers, producers and suppliers to operate in the same location, thus reducing the transaction costs of economic. Firms which will be located in industrial parks will use the services of local companies and will be able to create backward and forward linkages in the local economy. A concentration of certain types of industries and industry support services attracts investors and can therefore become growth and innovation hubs, creating high growth regions and directing national economic development.

3.4 CURRENT SUPPLY

3.4.1 The supply of warehouses for leasing is affected by three main factors namely availability of surveyed plots, availability of masons and lack of a well development real warehouses industry in Tanzania. The Government controls the delivery system of urban plots and are delivered without development of infrastructure and utilities making newly surveyed plots long and cumbersome process.

The number of permits applied for as well as the number issued is very low due to limited resource as the Ministry of Lands and Human Settlements Development can supply very few plots and the local business community

is also unable to implement large warehouses projects for leasing or outright sale due to the absence of finance institutions at a time as interest rate for loans from existing commercial banks are exorbitantly high. Up to now it is only the publicly owned pension funds (NSSF and NPF) that have been constructing buildings for hire at a large scale. However, these also have their financial limitations and at times they may have other priority project to implement other than real warehouses development.

3.4.2 COMPETITION

There are very few serious and organized real estate developers in Dar es Salaam or for that matter in the country. This situation limits supply of modern warehouses for hire or outright purchase although one cannot say for certain the exact number of modern warehouses units in Dar es Salaam that are ready for occupation at any given time. On the whole, the supply of warehouses for leasing faces little competition especially in the planned prime areas where no empty plots for development of new modern warehouses units. The high cost of purchasing an old building, demolishing it and construction modern and warehouses put off many would be investors. Furthermore, since the warehouses business in Tanzania is still young, participants are few and therefore competition is low.

4.0 SITE AND LOCATION

M/S Nyanza Road works Limited contemplates construction of modern warehouses for leasing in in in Plot No.5/2, Wazo hill, Kinondoni Dar-es-salaam. This plot will accommodate warehouses for lease.

4.1 ACCESSIBILITY OF THE SITE

The envisaged project site will easily be accessible and it can easily be reached through the tarmac road and it can take about 20 minutes from the city center to the area by car during time when the traffic is not heavy.

4.2 AUXILIARY SERVICES REQUIREMENT

Power Supply System

An independent transformer will be provided to cater for the whole complex. A standby generator will be provided to supply the essential loads in an event of TANESCO power failure. State of the art accessories will be specified to supply power to various appliances. Power distribution through the state will be via underground cables installed with TANESCO requirements.

4.3 Fire Protection

It is proposed to provide fire detection and firefighting system which consist of automatic and manual detection devises, alarm and communication system whereas firefighting system will feature portable extinguishers, hose reels, wet and dry rises and automatic sprinkler system.

4.4 Air conditioning & Ventilation

An individual/separate air conditioning system mainly split units and window type is proposed for the complex. Proper ventilation system will be provided throughout the year.

4.5 Security

Security will be of prime importance surveillance cameras and access control will protect both tenants and customers alike.

4.6 Access Entrance

Wide inlet/entrance will be provided so as to facilitate smooth passenger of the tenants with their vehicles.

4.7 A Parking Space for the Complex

The complex will be provided with a parking space adequate to accommodate not less than 50 vehicles at any given time. This level space is anticipated to be adequate for purpose in question.

4.8 Water Supply

Source of Water

The source of water for the proposed complex will be from the nearest main supply line serving the neighboring residential and commercial area. Material specification for pipes and fittings will be according to Tanzanian standards. Provision for both group and overhead storage tanks will be of priority so as to boost the water pressure and for availability whenever the pipes go dry.

5 .0.CONSTRUCTION WORKS

5.1. THE PROPOSED WAREHOUSES FOR Lease

Proposed warehouses for lease complex must be properly designed and the layout should conform to the specific standards to ensure the anticipated comfort. Provision of spacious rooms and other functional areas

5.2 ENVIRONMENTAL CONSIDERATIONS

The design of warehouses complex will be carried out with maximum consideration of environmental impact assessment. The building will be designed to receive maximum natural ventilation and light. Mechanical ventilation should be an alternative only in the absence of natural one. However, both cases should be considered according to the varying/changing climate.

Another area where the environmental impact has to be considered is at the project surroundings whereby the already grown trees should be retained and included in the landscaping as part of the species of trees to be proposed by the architects. Also, environmental consideration shall be given priority during landscaping so that maximum presentation of soil erosion is observed.

5.3 Security System

It is recommended that an independent security company provide the security of the complex. This system is very popular for high-rise building owners in the country at present.

6.0. DESIGN CONCEPT AND FACILITIES

The proposed warehouses for lease will be of readymade panels. There will also be a provision of car park area. The layout will be appropriately set to facilitate the setting up concrete passage lanes. Furthermore, there will be establishment of ideal hedges/flowers conveniently set in the plot so as the provide the appropriate general outlook of the industrial park.

6.1. EXTERNAL WORKS

The plot is expected to be landscaped with earth excavation. 1st or 2nd class contractor shall undertake construction of the building. All finishes will be of both locally available and imported materials.

6.2. MACHINERY/EQUIPMENT

These will be in the form of air conditioners ceiling fans, warehouse, complete steel structures facilities, various equipment's so as to make the building fully furnished with the appropriate enmities

6.3. FURNITURE AND FITTINGS

These will comprise of sofa sets, office chairs and tables, curtains etc. Such furbishing with proper interior finishing touches will make the warehouses for lease assume an acceptable international standard.

7.0 MANPOWER REQUIREMENTS AND ORGANISATION

7.1. MANAGEMENT

The success of a venture of this kind depends on the competence of the personnel recruited to manage. It is assumed that relevant personnel with requisite skills shall be available within the country. There will be a need of recruiting expatriates in some key positions.

It is envisaged that the proposed manpower structure would give an effective control of the activities. Board of Directors will manage the warehouses. This board will operate through the project director who would be the Chief Executive of the warehouse's operations.

In Order to streamline the warehouses operations, it is proposed to engage two key figures; Operational officer and the Project Accountant. These two along with the Project Manager will form the central operational core that will ensure the success of the project

7.2 MANPOWER REQUIREMENTS

7.2.1 Total Manpower Requirements

Based on the proposed organization structure the project will initially employ a total of at 215 people including 15 expatriates. However, it is anticipated that by the time the project attains maturity the envisaged employees will be decreasing in number as the construction phase will be reducing and few people will be needed to manage the warehouses.

7.2.2 Recruitment

All new staff would be recruited as the construction activities will be going on while the permanent staff will be recruited at least one month before the and warehouses operations are commenced

8.0. IMPLEMENTATION SCHEDULE

Both local and external factors have been taken into account when drawing out the proposed schedule of implementation. Factors such as finalization of civil works, survey, acquisition of machinery and equipment, recruitment of qualified personnel and other factors has been looked into.

8.1.1. Construction of the Building

This undertaking will require a period of five years and will be carried in Phases to completion.

8.1.2 Ordering of Steel Structures, Machineries and Equipment's

Timely ordering will have to be executed to match the rate of development of the warehouses.

8.1.3 Plot Development Undertakings

These will comprise of activities such as plot clearing. The carrying out construction of drainage channels etc.

8.1.2. Construction of Building/related civil Works

The construction of buildings for the various purposes. These will be done in phases

8.1.3. Leasing Advertisement Efforts

These will be carrying out when 85 percent of civil works are completed. This is intended to facilitate prompt acquisition of potential customers.

8.1.4. Installation of Machinery/Equipment/Furniture

Once the buildings are constructed and then will follow the installation of machinery/equipment/furniture and fittings upon arrival at the project site.

8.1.5. Commercial leasing

These will be done as and when the warehouses are completed.

9.0. INVESTMENT AND FINANCING

9.1. ASSUMPTIONS

- The project construction time is assumed to be five years.
- The economic life of the project is 10 years
- The currency exchange rate of Tshs. 2300/- to one US$ has been adopted
- Re-investment in vehicles shall be done after every four years.

9.2. INVESTMENT STRUCTURE

The total initial investment is fixed assets is estimated at **US$ 18,000,000** and whose breakdown of which is as follows;

ITEM	**US$**
Fixed Asset	
Civil Works	12,500,000
Machinery and Equipment	1,700,000
Vehicles	1,400,000
Furniture and Fittings	1,100,000
Pre-Operational Expenses	150,000
Sub total	**16,850,000**
Initial working capital	**1,150,000**
GRANT TOTAL	**18,000,000**

9.2.1. Civil Works

The ultimate building to house the project is estimated at a cost of US$ 12,500,000

9.2.2. Machinery and Equipment

Machinery /Equipment needs for the processing unit are estimated at cost of US$ 1,700,000

9.2.3. Vehicles

These are estimated at US $1,400,000

9.2.4. Furniture & Fittings

These are estimated at US$1, 100,000

9.2.5. Pre-operational

These are estimated at us$ 150,000

9.2.6. The initial Working Capital

It is envisaged that for the project to take off the initial working capital could be at the level of US $ 1,1500,000.

9.3. RE-INVESTMENT

There shall be need for re-investment in vehicles after every four years i.e., in year 4 and year 8.

9.4. FINANCING PATTERN

The total initial investment of US$ **18,000,000** shall be financed as follows. There will be a long-term loan of US$ **16,600,000** and equity contribution of US$ **5,400,000** covers the fixed assets.

9.5. OWNER'S EQUITY

SOURCE	US $
Fixed Assets	
Long term Loan (70%)	**12,600,000**
Equity (30%)	**5,400,000**
	18,000,000

The owners shall finance 30% of the cost of initial working capital

10.0. OPERATION COSTS

10.1. ASSUMPTIONS

The prices of inputs are assumed to remain constant over the ten years period because under rising inflation the prices and services will rise including those of outputs hence having the profit margin unchanged

10.2.OPERATION COST STRUCTURE

The main items, which will constitute the operating costs, are as hereafter outlined, when unit will be in full operation.

ITEM
Salaries and wages
Vehicle running expenses
Electricity
Water
Insurance
Maintenance-Buildings
Repairs of Furniture and fittings
Administrative overheads

10.2.1. Operating Expenses

The cost items to be handled by the landlord include general maintenance of the warehouses for rent, insurance of building against fire etc. salaries and wages, electricity and water, security, management fees and other general administrative responsibilities.

10.2.2. Repairs and Maintenance

General repairs and maintenance costs for building and civil woks vehicle and equipment are going to be undertaken by the land lord

10.2.3. Energy and Water

Electricity for general lighting/security will be used

10.2.4 Salaries and Wages

A total of 215 people will be employed to cater for the overall, construction, administrative, financial, security and cleaning functions of the complex.

10.2.4. Depreciation

Depreciation rates have been calculated as follows:

Land, Building and Civil Works	4% Straight line
Vehicle	25% Straight line
Pre-operational Expenses	20% Straight line
Equipment	12.5 Diminishing value

Total depreciation charges in year one is US$ **1,230,000** decreasing steadily to US$ **500,000** in year 10.

10.2.5. Tax

Corporation tax is charged at 30% on profits before tax. Tax in year four is estimated at US$279,000 rising to US$ 498,000 in year 10

11.0.FINANCIAL AND ECONOMIC ANALYSIS

11.1. ASSUMPTION

- The prices of inputs and outputs are assumed to remain constant over the life of the project i.e., 10 years
- However, in case of changes in the costs of inputs, to maintain the desired profit margin the prices of the outputs will be accordingly adjusted
- The assumed capacity utilization levels are at 60%, 70%, 80%, % and 100% for years 1-4 and onwards to year 10 respectively.
- The revenue is estimated to be us$300,000 per month
- The operation costs are assumed to be 40% of the total revenue.

11.2.INCOME

The project's income at full capacity utilization is estimated to average at US$ **300,000** per month as presented in the income statement.

11.3.PROJECTED CASH FLOWS

The project has a positive net cash flow from year of operation to the tenth year when the long-term loan will have been paid in full.

11.5 FINANCIAL REVIEW

The Financial review of the project demonstrates that: -

The project is profitable

The liquidity position of the project is sound and that is should be able to meet its loan commitment easily;

12.0.CONCLUSION AND RECOMMENDATIONS

Analysis of the viability of the Nyanza Road Works Limited project aimed at establishing an industrial Park is financially viable and commercially attractive. From a national point of view, the timely implementation of the project will lead to following economic benefits: -

- The project will contribute towards the establishment of high-class industrial park facilities in Dar es Salaam;
- Efficient operation of the project will increase foreign exchange earning capacity;
- Nyanza Road works Limited will provide indirect employment; and
- The government will earn substantial revenue from the operation of the project in the form of value added tax.
- Industrial parks can contribute to the realization of many goals of national innovation and sustainable development strategies. Well-planned and equipped parks stimulate the relocation of industries to semi-urban or rural areas, help to relieve congestion and pollution in the urban areas
- Industrial parks use modern services, such as information and telecommunications as well as extension services that are critical for innovation, technological learning and company growth.
- Costs are reduced through economies of scale in the provision of common services and facilities. Furthermore, A concentration of certain types of companies attracts innovation and investors and may facilitate the development of clusters

Strong sponsors promote the project with the ability to manage all the activities efficiently. The short implementation period combined with the envisaged financial returns makes the proposal highly attractive and ideal for supporting. This study recommends timely implementation of the proposal.

NYANZA ROAD WORKS LIMITED.

INVESTMENT COST

ITEM	US$
Fixed Asset	
Civil Works	12,500,000
Machinery and Equipment	1,700,000
Vehicles	1,400,000
Furniture and Fittings	1,100,000
Pre-Operational Expenses	150,000
Sub total	**16,850,000**
Initial working capital	**1,150,000**
GRANT TOTAL	**18,000,000**

NYANZA ROAD WORKS LIMITED
DEPRECIATION SCHEDULE

US$

	Value	Rate%	1	2	3	4	5	6	7	8	9	10
Land and Civil Works	12,500,000	4	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000
Machinery and Equipment	1,700,000	12.5	212,500	212,500	212,500	212,500	212,500	212,500	212,500	212,500	-	-
Vehicles	1,400,000	25	350,000	350,000	350,000	350,000	-	-	-	-	-	-
Furniture &fittings	1,100,000	12.5	137,500	137,500	137,500	137,500	137,500	137,500	137,500	137,500	-	-
Pre operational Expenses	150,000	20	30,000	30,000	30,000	30,000	30,000	-	-	-	-	-
Total	**16,850,000**		**1,230,000**	**1,230,000**	**1,230,000**	**1,230,000**	**880,000**	**850,000**	**850,000**	**850,000**	**500,000**	**500,000**

NYANZA ROAD WORKS LIMITED

REVENUE SCHEDULE

USD

	1	2	3	4	5	6	7	8	9	10
Capacity in% age	40	50	60	80	100	100	100	100	100	100
Monthly revenue in **USD 300,000**	1,440,000	1,800,000	2,160,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000

NYANZA ROAD WORKS LIMITED
PROJECTED INCOME AND EXPENDITURE STATEMENT

US$

		1	2	3	4	5	6	7	8	9	10
Occupancy rate (%		40	60	80	100						
Income		1,440,000	1,800,000	2,160,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000	3,600,000
Less Operating Cost		576,000	720,000	864,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000	1,440,000
Profit before interest and depreciation		**864,000**	**1,080,000**	**1,296,000**	**2,160,000**	**2,160,000**	**2,160,000**	**2,160,000**	**2,160,000**	**2,160,000**	**2,160,000**
Depreciation		1,230,000	1,230,000	1,230,000	1,230,000	880,000	850,000	850,000	850,000	500,000	500,000
Sub-total		**(366,000)**	**(150,000)**	**66,000**	**930,000**	**1,280,000**	**1,310,000**	**1,310,000**	**1,310,000**	**1,660,000**	**1,660,000**
Profit before tax		(366,000)	(150,000)	66,000	930,000	1,280,000	1,310,000	1,310,000	1,310,000	1,660,000	1,660,000
Tax (30%)		-	-	19,800	279,000	384,000	393,333	393,000	393,000	498,000	498,000
Profit after tax		**(366,000)**	**(150,000)**	(46,200)	651,000	896,000	916,667	916,667	916,667	1,162,000	1,162,000
Accumulated Profit		**366000**	**516000**	**(469,800**	**181,200**	**1,077,200**	**1,993,867**	**2,910,534**	**3,827,201**	**4,989,201**	**6,15,201**

NYANZA ROAD WORKS LIMITED
CASHFLOWS PROJECTION

US$

	0	1	2	3	4	5	6	7	8	9	10
Sources											
Profit before interest and depreciation		864,000	1,080,000	1,296,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000
Equity	**18,000,000**	-	-	-	-	-	-	-	-	-	-
Total sources	**18,000,000**	864,000	1,080,000	1,296,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000	2,160,000
Applications											
Capital expenditure	**18,000,000**	-	-	-	-	-	-	-	-	-	-
Tax		-	-	19,800	279,000	384,000	393,333	393,000	393,000	498,000	498,000
Sub-Total	**18,000,000**	-	-	19,800	279,000	384,000	393,333	393,000	393,000	498,000	498,000
Total Applications	**18,000,000**	-	-	19,800	279,000	384,000	393,333	393,000	393,000	498,000	498,000
Net cash flows		**864,000**	**1,080,000**	**1,276,200**	**1,881,000**	**1,776,000**	**1,766,667**	**1,767,000**	**1,767,000**	**1,662,000**	**1,662,000**
Accumulated cash	-	**864,000**	**1,944,000**	**3,220,200**	**5,101,200**	**6,877,200**	**8,643,867**	**10,410,867**	**12,177,867**	**13,839,867**	**15,501,867**