TANCHENG INTERNATIONAL MINING CO LIMITED

BUSINESS PLAN FOR INTEGRATED PROJECT – FOR THE PROCESS DESIGN OF GOLD LEACHING AND CARBON IN PULP CIRCUITS AT MWAGILIGILI MISUNGWI DISTRICT, MWANZA REGION, TANZANIA.

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List of Abbreviations

BSF- Blow-Fill-Seal
CAPEX – Capital Expenditure
COMESA- Common market for eastern and Southern Africa
CSI - Corporate Social Investment
EAC – East Africa community
EIA – Environment Impact Assessment
GDP – Growth Domestic Products
KVA –Kilovolt Amperes
MT – Metric Ton
NBS – National Bureau of standard
NEMC – National Environment Management Council
OPEX – Operating Expenditure
SADC –Southern Africa Development Community
SKU- Standard keeping units
SWOC - strengths, weaknesses, opportunities and threats.
TANESCO – Tanzania Electric Supply Company
TIC- Tanzania Investment Centre
TZS – Tanzania Shilling
TZS-Tanzania Shillings
US – United State Dollar
US$ - United State Dollar
VAT – Value Added tax

EXCUTIVE SUMMARY

Tanzania has become a key player in extractive industry especially mining sector. The sector has high growth rates as demand for export of gold has increased to more than 10% of total export from Tanzania. The country's overall economy is currently on a growth path. The country has experienced several years of strong economic growth (ranging from 6.2 in 2025) and it is now one of the fastest growing markets for gold trading in the global market

TANCHENG INTERNATIONAL MINING CO LIMITED decided to establish integrated gold leaching processing plant in Misungwi Mining area in Mwanza region for gold processing

TANCHENG INTERNATIONAL MINING CO LIMITED is a limited liability company, registered in Tanzania under Certificate of Incorporation No 154135340 191950321 issued on the 17th December 2025. The project will be located at Misungwi district, Mwanza Region, Tanzania.

The proposed integrated project is estimated to cost a total of US$ 1,000,000, The Current asset of US$ 450,0000 fixed assets US$ 550,000 and total liabilities of 1,500,000 US$. The business plan has an assumption all capital investment will be recovered within 3 years for 5 year projected economic life,

The production capacity of the plant is based on 300 working days excluding Holidays and Sunday. The factory capacity is 270 tons of gold ore respectively per day. Capacity utilization of the plant is 60% - 75%. The proposed project is a complete set of modern technology with output capacity of 22 tons of gold ore per hour. All machines are from well-known Asia brands (China), after being over hauled, run 20-25 years.

The development of a large and complex project such as TANCHENG INTERNATIONAL MINING CO LIMITED is necessarily accompanied by multiple risks during all the phases of the project development, construction, operation and maintenance. The right approach to manage risk must be taken into account. Based on the Impact Investment Index analysis, the company can develop projections that the project can deliver both value for money in the context of broad socioeconomic impact and return on investment while complying with Governance requirements.

The development of this integrated plant will be funded by private finances. The company acting through its various shareholders and structures will provide the initial risk capital amounting to 1,000,000 US$, the whole amount will be raised from shareholders.

1.0. INTRODUCTION

1.1. Gold processing industry in Tanzania

Tanzania has become a key player in gold processing industry where there is great demand of such technology. Tanzania's mining industry is reporting high growth rates as demand for gold processing plants and technology. The country's overall economy is currently on a growth path. The country has experienced several years of strong economic growth (ranging from 6.2 to 6.4% in 2025) and it is now one of the fastest growing markets for gold export in the world that covers more than 10% of its exports.

TANCHENG INTERNATIONAL MINING CO LIMITED is matching grants opportunity for businesses in Tanzania that wish to develop or increase their ability to trade, support product quality improvement and the meeting of international standards to access potential markets within and outside Tanzania.

In this respect the company is planning to establish integrated project of gold processing plant in Mwanza region in Tanzania that will support government initiatives endeavor to develop the mining sector as an engine of pro-poor economic growth, and empowering small-scale miners

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1.2. Why gold processing plant in Tanzania?

In the Africa region, one of the largest markets for gold is Tanzania. The country has been exporting gold to different destinations across the world in increasing quantities over the last five years and has emerged attractive destination for foreign investors in Mining sectors

In an effort the ministry of mining has been working hard to empower small scale miners who are needs of modern technology and machine to process the gold for the purpose of maximizing production.

In 2023/2024 the mining commission issues a total number of 6268 primary mining license an increase of 10% of the primary mining license which issued in the year of 2020/2021. This increase number of holders of primary mining license motivate the needs of processing plants.

In an effort to strengthening the country economy, the Government of Tanzania cited integrated mining industry as one of the potential revenue and job creation sector, its important is not only to social economic development, but has positive significantly towards economic development.

TANCHENG INTERNATIONAL MINING CO LIMITED decided to expand mining industry in Mwanza – Tanzania

Considering such level of market growth and demand driven variables with notably absence of high-level local gold processing facilities already functioning in Tanzania and neighboring countries, the investment venture will become potentially profitable business.

2.0. PROJECT OVERVIEW

2.1. The plant ownership and share distribution

TANCHENG INTERNATIONAL MINING CO LIMITED is a limited liability company, registered in Tanzania under certificate of incorporation No 191950321 issued on the 17TH.12.2025. The project is located at Mwagiliglili Misungwi Mwanza Region, Tanzania. Currently, the company is anticipated to employ 30+ employees.

Integrated factories will be located in Mwanza region. Anticipated raw material of factory will be collected from small scale miners/artisan surrounding the processing plant and chemicals to be used will be imported from abroad.

The initial Authorized Share Capital of the company is TZS 1,000,000,000/= divided into 100/- ordinary shares of Tshs 1,000,000/- each and the company have the power to divide the original or any increased capital into several classes, and to attach thereto any preferential, deferred, qualified or other special rights privileges, restrictions or conditions. Unless the conditions of issues shall otherwise expressly declare, every issue of shares, whether preference or otherwise, or any such rights, privileges or conditions shall not be altered or modified except in accordance with the registered Articles or Association. The liability of the members is limited and the following names compromise the company ownership and principal shareholding as illustrated on

Table 1 below.

Table 1: Company Ownership and Principal Shareholders

S/No.	Shareholder's Name	Address	Number of Shares
1	AIFENG TAN (Business woman)	P O Box 10101 MWANZA	510
2	AILONG TAN	P O Box 10101	490

		MWANZA	

The address for this company is;
TANCHENG INTERNATIONAL
MINING CO LIMITED
BUZURUGA PLAZA
MECCO -MWANZA
TANZANIA.

2.2. Project Description

2.2.1. PROCESSING PLANT FACTORY REVIEW

The processing gold plant represents the primary gold recovery process and their technical and operational efficiencies will have a significant impact on overall plant efficiency. The objective during process design of these sections is thus to develop a design which provides maximum technical and economic efficiency and which is robust to potential changes in ore throughput, mineralogical characteristics and head-grade. Experience has shown that, particularly for longer life and higher-grade projects typical of the Tanzania underground gold mining industry, small changes in recovery and efficiency have a significant value over the life of the project.

The company shall construct a Carbon in Leaching Plant (CIL). In this process carbon is added directly to the leach circuit so that the leaching and adsorption processes proceed simultaneously

2.2. PROJECT DESCRIPTION

TANCHENG INTERNATIONAL MINING CO LIMITED intends to construct Carbon in Leaching Plant (CIL).

The project is expected to start by early June 2026 whereas raw materials some will be extracted from the primary mining license which TANCHENG INTERNATIONAL LIMITED has entered into technical support agreement with the owners and others will be purchased from the artisans/small miners who shall be willing to sell to our company

Production process of gold involves crush and or milling of the gold ore/stones into less than 10mm by crushers the after milling lime shall be added to thickening then leaching process along with carbon adsorption shall take place simultaneously in the leaching tanks.

Then after that the active carbon is lifted by air lifter to carbon screen to get gold loaded carbon and after cleaning the gold loaded carbon enters into desorption and electrolysis system to get/obtain gold dust. The gold dust goes to the gold melting furnace and turns to gold bar

The project envisages setting up modern equipment in installation of complete set for processing plant machines from China and other countries and some of machine shall be purchased within Tanzania, all machines and equipment' will cost 1,000,000 US$ this includes transport/logistic costs and utility costs such as electricity and water

2.3. Project Cost & Financing Pattern

The proposed integrated project is estimated to cost a total of US$ 1,000,000 this including, own equity of 100% as proceeds from capital contribution of the project, total loan debt of zero. The Current asset of US$ 500,000 fixed assets 1,187,915US$ and total liabilities of 2,368,130US$. The project will be implemented within 5 years.

Equity + Loan	
Equity 100%	**1,000,000.00**
Loan 0%	**-**
Total Equity	**1,000,000.00**

2.4. Business Plan Objectives

The objectives of this study are two-fold. First is to determine the viability of the proposed project and serve as a business plan for the company's development program. Secondly, the business plan will act as a supporting document in the company's application for Tanzania Investment Centre (TIC) Certificate of Incentives so as to access exemptions on duties, VAT deferments and other benefits and protections as statutorily provided for under Tanzania Investment Act (1997).
The project promoters have commissioned a reputable engineering and project planning consulting firm to advice on detailed technical and economic evaluation of the project and in determining its viability. As the report will be used to raise debt financing for the project, it is tailored to meet standard requirements of financial institutions in the region.

2.5. Product: Demand and Market Analysis

2.5.1. Market analysis – Gold Minerals

The market analysis conducted indicates that there are few modern gold processing plant in Mwanza Region especially in mining designated areas. The

trade volume of mineral dealership is very high; this has been contributed by the increasing number of small-scale miner/artisans who are processing the gold ore/stone by local means.

That apart from artisan, increase in number of issued primary mining license to the locals, these kind of license demand extraction of gold by using simple means and machines, still gold processing is required and basing on the volume of ore extracted the leaching plant is required to process the same.

At present, most of the artisans and small miners are using local ways to extract gold which cause a lot of gold wastage as the means do not separate all the gold from the ore.

2.5.2. Market potential for gold

As indicated in the previous section, a gold market has been identified. Market research indicates the lake zone regions market for gold is estimated to be 500 kg of gold annually. **TANCHENG INTERNATIONAL MINING CO LIMITED** has set its sales target at processing more than 100,000 tons of ore in year one, increasing to the production of gold and other minerals like silver. Year one target equates to a 4.9%%, the sales increases by 5% There is the possibility of extending the business into the area of order fulfillment, which means on-line packing of products for customers. This will lead to efficiency, costs savings and shortened lead-time for potential customers. However, it is the director's intention not to enter this sector in the initial three years of operation.

The market for gold in world is to remain dominant for the highest growth in revenue as compared to other business over the forecasted period, 2017-2025. In Tanzania gold market is expected to have considerable growth in terms of market value owing to technological advancements in the processing plant for these emerging economies which will witness a sizeable increase in the revenue contribution of the sales.

From the analysis in the preceding chapter, the marketing of the final products in the country will not pose a problem either as even if the export markets collapsed the local market itself is able to take up whatever the project will produce as the Bank of Tanzania is buying gold.

2.6. Technical Characteristic of the project.

2.6.1. Project Site analysis

Based on physical inspection of the proposed site, the availability of basic and essential plant infrastructure such transport, water supply, effluent disposal, electric power supply, telecommunication system and security were all checked out and are ok for factory establishment. The realization of the project development requires successful completion of a number of necessary activities and facilities to enable a successful development of the project. The project location is already installed necessary utilities such as reliable supplies of energy, water, transportation, telecommunications services, waste disposal and other services are in place.

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2.6.2. Buildings and related fixed cost

The floor plan and elevation of buildings and other related structures will be rehabilitating to **TANCHENG INTERNATIONAL MINING CO LIMITED** as rented by the shareholders. However, the total cost of Land acquisition and registration, factory buildings, Storage of raw materials and finished processing plant structure has been done by the owner, the estimated cost of the structure is estimated to 200,000US$ as cost associate to rehabilitation of the structure, project fixed cost have been estimated at US$ 400,000 which includes purchasing of machines, motor vehicles and structure rehabilitation.

The factory also set budget as working capital which involves purchase of raw materials and factory overhead cost of 70,217.39US$. The minor rehabilitations costs are inclusive of contingency and reflect prevailing cost of building materials and labour costs in the country. Mostly local building materials will be used in the construction of the same.

2.6.3. Machinery and Equipment.

Proper machinery selection is one of the key problems in the development of a factory. The machinery must suit the two-fold requirements of the developing countries, i.e. it should be up-to-date to allow for competitive production. In view of the foregoing, an effort has been made to choose from modern technological alternatives, a level that strikes a balance between fixed costs based on depreciation and variable costs based essentially on wages.

The requirements of various items of equipment have been worked out taking into consideration the production programs, average equipment utilization and normal productivity level of an average worker etc. While working out details of equipment required, it has been assumed that the plant will be working in a double shift of 16 hours a day, 25 days a month or a total of 300 days a year.

The projects machinery and equipment will be sourced from China and are estimated to cost 544,869.57US$, this includes, complete set leaching tanks, laboratory equipment for testing quality and ppms (concertation of gold ore), flight charge. These cost assumptions are C.I.F Dar es Salaam and include installation, commissioning, consultancy, port charges and transport to the project site. Calculated depreciation of machines and other working facilities is estimated to cost 68,929US$. Others working facilities have already in place this includes weighing scales, mini laboratory equipment, communications, computers and other office equipment, standby power generator and miscellaneous machinery and equipment.

2.6.4. Motor Vehicles

5 heavy Box body trucks will be purchased in the first of production whereas truck will be purchased at a price of 65,217.39US$ each totaling to 326,086.96US$, and 10 Light Vehicles Lorries for indoor distribution at a price of 21,391.30US$ will add for smoothening distribution. Total cost for all type of truck is estimated to 543,478.26US$.

2.6.5. Furniture & Fittings and computers

This cost item includes the purchase of various office furniture: tables, chairs cabinets, safes, telecommunication gadgets, firefighting equipment, air conditioners etc. A budget of 4,347.83US$ will be allocated from general administration budget for furniture fittings and computer accessories. The total budget for furniture and fittings is small due to nature of industry as few or minor requirement of furniture and fittings.

2.6.6. Pre-Operational Expenses

Under pre-operational expenses are considered costs like company formation, preliminary project studies, business plan preparation costs, licenses, permits and authorization, including processing of TIC Certificate of Incentives, and legal fees, travelling expenses, initial recruitment and training expenses, and interest accrued during project construction period. Budget allocated for this is 60,000US$

2.6.7. Initial Working Capital

This item will mainly cover initial imports of raw materials estimated to last for the first three months of operations. Otherwise, raw materials will generally be maintained at one month's stock and debtors at one month's sales volume constitute the biggest portion of current assets. Trade credits will be 15 days for the items listed. The initial working capital allocated budget is 10,869.57US$.

2.6.8. Project Capital Investment Summary

INVESTMENT SUMMARY	
Fixed Assets	
A. Land and Buildings	
Land rent @2500 US$	30,000.00
B. Moto vehicles	
5 Heavy Vehicles 32MT @65,217.39	326,086.96
10 Light Vehicle Lorries @21,739.13	217,391.30
Subtotal - Moto vehicles	**543,478.26**
C. Machineries and Equipments	
Complete set gold production line	165,217.18
Complete set of leaching	232,609.52
Laboratory + equipments	19,565.22
Generator	108,695.00
Flight charges	18,782.65
Sub Total Machineries	**544,869.57**
D. Furniture and fittings	4,347.83
E. Contiguous/others	65,217.39
Subtotal Fixed Assets	**108,565.22**
Total Fixed asset	**1,187,913.05**
Current Asset	
F. Pre operational expenses	10,869.57
G. Initial working capital	65,217.39
Sub total current Assets	**76,086.96**
Total Investment	**1,264,000.01**
Equity + Loan	
Equity 100%	**1,264,000.01**
Loan 0%	**-**
Total Equity	**1,264,000.01**

2.6.9. Project Financing

The project costs, including fixed costs (machinery, equipment, building renovations, motor vehicles, office furniture and equipment and pre-operation expenses will be financed by shareholders own resources 100%. Working capital requirements will be financed by shareholder or seeking short term bank financing in form of overdraft facility. The project promoters are planning to finance project cost in the following pattern:

2.6.10. Project Implementation

Full implementation of the project is planned to take place by early June 2026. Machineries and motor vehicles will be imported immediately while construction/renovation works are in process.

2.6.11. Explanatory Notes

The production capacity of the plant is based on 300 working days excluding Holidays and Sunday. The factory runs per day with a maximum of 26.7MT and 16MT of gold ore respectively per day. Capacity utilization of the plant is 60% - 75%. The proposed project is a complete set of modern technology with output capacity of 1,666KG of ore per Hours and beverage 1,000KG per hours. All machines are from well known Asia brands (India/China), after being over hauled, run 25-2030years.

2.6.12. Auxiliary Materials/ services

Falling under this category is lubricants, grease and other miscellaneous items.

Utilities and service facilities that will need to be provided in this plant are as follows:

(i) Workshop
(ii) Electric power
(iii) Water supply
(iv) Miscellaneous facilities {Canteen; First Aid Kit, Storage and transport and Office Facilities}

(i) Workshop

It is necessary to make provision for a small workshop in the plant premises so that certain maintenance operations could be carried out following sudden breakdowns and major routine matters.

The facility will comprise of necessary machines like small centre lathe, drilling machine, welding set, soldering and gas-cutting equipment including complete electrical kit to take care of necessary electrical maintenance as well as to replace worn-out parts and periodic oil and greases needs for the plant. Equipment provision has been restricted to the minimum.

(ii) Electric Power and Generator

The proposed site will be supplied with industrial production 3-phase standard power supply from Tanzania Electric Supply Company (TANESCO), the electricity is available through the National Grid Line from Shinyanga to Mwanza Region. As part of an alternative power supply, the company is already installing a heavy duty 500KVA power generator automated generator that will be connected to the plant and premises for standby power supply costing to 108,695US$

The TANCHENG INTERNATIONAL MINING CO LIMITED will install an online UPS system that secures clean and uninterrupted power free of surges, brownouts, fluctuations and other power problems. The client manufactures PP non-woven fabrics in a high-temperature, high-pressure environment, in which electricity interruptions cause economic and material losses. The total cost of generator not included to business plan as it's already in place.

(iii) Water Supply

Apart from the needs of electric power, water is also required for the actual process and other social needs. The proposed site has close to MWAUWASA water network, the agency is major supplier of water to urban and peri urban area in the city. While depending on water supply from MWAUWASA, the main line is close to the proposed industry from Mwanza city to Misungwi area. The main line from this source will be tapped and let to the land site and water collected in an overhead reservoir provided at the top of the building of the plant. Adequate provision has been made in the project cost for the overhead tank and supply and laying of pipelines etc.

(iv) Miscellaneous Facilities e.g. First Aid Kit, Storage and Transport, Office Facilities etc

- Provision has been made in the project costs for necessary facilities for external telephones and fire alarm system;
- Sickness and ill-health are recognized to be among the cause of absenteeism and low morale leading to decreased production, increased waste and bad employee-management relations. Therefore, necessary provision has been made for the canteen and first aid facilities in case of accidents, sudden sickness etc.
- Storage and transport needs of the plant have been duly recognized and been attempted mostly manual. Regarding transport, five (5) trucks with a capacity of 32 MT will be

purchased and other 10 heavy trucks will be purchased and some will be hired for raw materials distribution

- Necessary provision for furniture and office equipment has been made in the Capital Cost estimates.
- Provision has also been made for the various types of weighing equipment in various sections for material-handling equipment etc.

2.6.13. WAREHOUSING AND DISTRIBUTION

TANCHENG INTERNATIONAL MINING CO LIMITED warehousing service is ready to meet 24/7/365 with produced gold products and raw materials imported. The efficiency of on-site combined with focal lift is already accommodated all needs and reduce supply chain costs. The industry uses electronics inventory management system means will ready for the efficiently processing activities

2.6.14. WASTE MANAGEMENT FOR INDUSTRY

In order to create a sustainable society, it is necessary to develop effective utilization of all sorts of wastes. One of the major wastes from our living is chemical waste. Chemical waste is divided into hazardous waste and non-hazardous waste. And normally waste from gold processing plant hazardous waste that need proper waste management and control since the whole process involves the use of cyanide and carbon

In his strategic management for a **TANCHENG INTERNATIONAL MINING CO LIMITED** shall manage the waste by building a well and proper TSF according to the law of mining and that of environment. That in such a way the built TSF shall ensure there is not pollution to water bodies and land which around the mining area.

Rapid degradation in environmental conditions has changed at attitude of industrial managers toward ecological environment and had them consider ecology a significant factor while taking decisions related to industrial management. Parameters responsible for environmental pollution include chemicals discharged into air, water and soil as well as energy pollution all these will taken into consideration of the proposed project.

Noise pollution caused by poorly planned settlement programs is also included in this plan. Furthermore, safety and health of those working in production will be also taken into account by installing modern machines free from noise pollution.

3.0. MANPOWER REQUIREMENT - SALARY PROJECTION

3.1. Employment

The whole process of production lines is looking at providing direct employment to at least 30 permanent jobs on full implementation and operation of the project. The company is divided into 2 (1) Corporate (2), Production.

3.2. Recruitment

Recruitment of the 34 persons will be carried out by giving first preference to ex-technician from our local technical institutes such as Vocation Education Training Authority "VETA" and employees of gold mines processing plants in Tanzania, based on demonstration of skills and aptitude basis and their willingness to work for TANGCHEN INTERNATIONAL MINING CO LIMITED. Careful methodology is being worked out by a competent management consultant who will set the job descriptions. To ensure that the right caliber is recruited. Recruitment of expatriate personnel will be carried out in consultation with the relevant authorities in Government and the collaborating agencies.

3.3. Training and the use of consultants

The Company plans to initially carry out on the job training for most of the technical staff to be dispatched to the project site by the suppliers of the plant which will be specified under sales agreement. In general, the company will ensure that employees acquire new skills and procedures to increase their productivity fourfold. Educational materials will be subsidized or paid for to motivate the workers to develop themselves.

Whereas the company will endeavor to obtain the best talents to fill the permanent posts in the organization, it is intended where necessary, to continue with the policy of hiring out some specialized skills by way of consultants. Alternatively, those skills not required throughout the year will be left to consultants. These include legal counsels, systems and management consultants. To ensure efficient and scientific management, operational manuals will be prepared for the core functions of the company.

3.4. Organization and Management

The project will be managed by qualified professionals given the vast experience that the promoters have acquired over years in running and managing similar businesses. The Board of Directors formulates policy and offer strategic business guidance to management and regularly monitor and evaluate performance of the company.
All the production line will be under the administrator under which the day-to-day leader/management of production line will be vested in the management team headed by an Administrator. The Administrator is to be assisted by qualified and experienced personnel.

Table 3.1. Proposed organization and manpower requirement for the plant is as follows:

S/NO.	CATEGORY	NOs	MONTHLY SALARY (US$)	TOTAL ANNUAL SALARY (US$)
CORPORATE OFFICE				
1	Administrators	1	600	7,200
2	Drivers	1	180	2,160
SUB TOTAL		**2**	**600**	**9,360**
PRODUCTION DEPARTMENT				
2	Production Manager	1	350	4,200
3	Operators	4	240	11,520
4	Helpers		180	0
5	supervisor- Plant Factory	2	280	6,720
6	supervisor- Processing Factory	2	280	6,720
7	Driver trucks	10	180	21,600
8	Hired labors	15	100	18,000
SUB TOTAL		**34**	**1,610**	**68,760**
GRAND TOTAL		**35**	**2,210**	**78,120**

4.0. FINANCIAL ANALYSIS

4.1. Production, Revenue and project viability

- The estimated revenue gain in selling gold annually 500,000 US$ in the first year of production whereas gold will contribute 680,529US$ and goll ore will contribute 544,423US$ excluding Value Added Tax.
- Net profit before tax is 774,923US$, second year earning is 821,740US$, which show the profit is increasing,
- Net profit after tax is 473,923US$, second year earning is 503,141US$, which show the profit is increasing,
- Gross sales contribution in the first year of production is 66% which increases tremendously in the second years up to 5 years
- The expected sales increase annually is 5% while increase production cost is 3% which depends on inflation rate of the country, for Victoria Poly bags Limited,
- Total investment cost of the project is 1,264,000US$ whereas the own equity is 1007% and loan-able amount ZERO, project current assets for the first year is 482,339US$, fixed asset 1,187,913US$, Project liquidity is 774,021US$
- The end balance of project in cash flow statement is positive and increases tremendous.
- Testing the project viability is positive whereas IRR is positive 15.02%, and payback period of project is within 3 years. The Discounted Cash flow yields an Internal Rate of Return (IRR) of which is well above the assumed cost of capital.
- The end balance of project in cash flow statement is positive and increases tremendous.
- Cash generated from operation and net cash from operational activities increases positively of project (see cash flow sheet)
- Return on Investment is anticipated to 37.5% which is above normal bank interest rate, which show in case promoter will borrow a commercial loan the project will recover bank loan within project economic life - see balance sheet,
- Depreciation of fixed assets and amortization of the pre-operational expenses rates used are as follows: land 5%, Civil Works/ Structures/Buildings 5.00% on straight line basis, Plant Machinery & Technical Equipment 12.50% on straight line basis, Motor Vehicles. 20.00% on straight line basis. The business plan uses 12.5% as depreciation factors. Depreciation is amounted to 67,727US$
- Salaries and Wages have been based on the prevailing scales in the industry. There is provision of 20% to cover company contribution to

NSSSF (10%) and other social welfare (10%). Included to the total amount (see Income statement)

- Corporate Tax is fixed at 30% of taxable profits. The project is able to pay tax hence increase government revenue via GDP by 232,371US$
- The business plan has an assumption all capital investment will be recovered within 3 years for 5 year projected economic life,

5.0. RISK ANALYSIS

5.1. Risk Analysis

Risk is the probability that an event or action will adversely affect the organization. Risk assessment is the identification and analysis of risks associated with the achievement of operations, financial reporting and compliance goals and objectives. Risk management is a central part of the TANCHENG INTERNATIONAL MINING CO LIMITED The Industry's management will determine the level of operations, financial and compliance risk they are willing to assume. Risk assessment is one of the Company's management responsibilities.

5.2. Macroeconomic risk analysis

Since early 1986, the Government of Tanzania has launched a comprehensive economic policy and stabilization plan with the aim to enhance the amount of infrastructure construction and improve the lives of the poor. During this time the main economic indicators significantly improved. However, uneven development of various region in the country, lack of relevant infrastructure in transportation, telecommunications, networking, health facilities, electricity and water supplies have proven to be investment barriers. Overall, Tanzania has a weak economic foundation but the project can achieve a greater impact in attaining social and economic goals for the country.

5.3. Finance risk analysis

a) Supply Risk: The risk in Primary production relates to supply of raw material, transportation and price fluctuations. There is no assurance of enough supply of raw materials in the local market instead mostly of raw materials are imported.

b) Processing Risks: The technology, machines and equipment used in gold ore are in rudimentary stages all of which contribute to reducing production efficiency. Also, quality/food safety and standards consideration in the production environment is limited. In nonwoven fabrics facilities operation know-how is very low as there are notarized labourers.

c) Sales/market risk: Placing value added products on the consumer markets bears risk of demand fluctuations and rejections through retailers.

Furthermore, consumers are not aware of the nonwoven fabrics quality and safety criteria and are usually very price sensitive.

5.4. Other potential external risk

a) Lack of Governance: the governance mechanism in the value chain is underdeveloped, actors operate in an uncoordinated and unorganized fashion, and if rules exist, they are often ignored;

b) Lack of market coordination: No lead organization has a coordinating role in relation to markets, technology and information such that producers and processors have no incentives for improving neither their product nor the chain process to promote sustainable income earning opportunities;

c) Unclear and conflicting roles regulatory authorities: Regulatory Agencies are responsible for quality control as well as enforcing TBS, NEMC etc, are regulatory role in issuing licensing etc

d) Industry associations: Associations are weak at all levels of the chain;

e) Operating procedures: Standard procedures are inadequately enforced, or not enforced at all, because of relaxed production and trade regulations; and

f) Integration: there is little vertical integration of importers, mid chain actors and processors.

5.4. Mitigating potential risk

The development of a large and complex project such as TANCHENG INTERNATIONAL MINING CO LIMITED necessarily accompanied by multiple risks during all the phases of the project development, construction, operation and maintenance. The right approach to manage the project in a manner which is fairly and adequately address the multiple risks in a comprehensive as well as systematic manner is to use the risk analysis and management methodology which identifies the risk issues and their instrumental cause. In this regard, the risk is eliminated or effectively managed by the party best suited with capacity to handle or deal with the risk factors.

6.0. PROJECT SWOC ANALYSIS

The SWOC (Strengths, Weaknesses, Opportunities and Challenges) analysis provides a quantitative and qualitative review of internal strengths and weaknesses and their relationship with external challenges and opportunities. The results of the analysis provide a basis for determining the project future goals and for identifying strategies and initiatives that would be required to develop the project. The matrix below summarizes the project strengths, weaknesses, opportunities and threats.

Table 6.1: SWOC Analysis – TANCHENG INTERNATIONAL MINING CO LIMITED

SWOC ANALYSIS	
Strengths	**Weaknesses**
(a) Close proximity market and SME, (b) Preferential operational and incentives scheme enshrined in the TIC law (c) Political will, the government's legal and policy framework support development of the project	i) Skilled labour to run factory, ii) Inadequate electric power, iii) Lack of working tools and machinery iv) Inadequate ICT system in place thus hindering effective and efficient service delivery. v) Weak collaboration/facilitative links with TRA, TPA, TANESCO and other Government departments which may create bottlenecks in investor facilitation;
Opportunities	**Challenges**
(a) Strategic location of Tanzania which is a hub for international business (b) Existence of preferential markets (c) e.g. EU, COMESA, EAC, USA; and regional markets like EAC, SADC and COMESA (d) Political and macroeconomic stability of the country (e) Goodwill and support from the **(f)** Government and the parent ministry;	i) High cost of doing business due to inefficiencies in the infrastructure system e.g. electricity, roads and air; ii) Lack of industrial linkages between research institutions and investors; iii) Government activities not fully coordinated and lack of appreciation of the TIC programs by other arms of the Government iv) Regional competition from other countries investment and markets.

7. ECONOMIC AND SOCIAL ASPECTS

The project is also likely to have a positive impact on the economy of Lake Zone regions and Tanzania as a whole by creating employment, and contributing to Government revenues through various taxes, which will be paid. It also has potential for substantial exporting to global gold markets. In summary the following table will show impact investment index framework

7.1. Impact Investment Index Framework

Impact Investment Index		
Frame Work for TANGCHEN INTERNATIONAL MINING CO LIMITED		
Performance Area	**Quantitative Indicator**	**Remarks**
Investment Capital	Total investment capital, CAPEX and OPEX US$ 1,000,000US$	Substantial amount of capital invested into the domestic economy.
Export Earnings	Indicative Annual sales of 100% earnings of 2,000,953 US$ out of annual average collection	Increased foreign earnings.
Job requirements	Job creation after plant in operation DIRECT TANZANIAN JOBS 30 locals employed,	• Reasonable number of direct jobs created to local Tanzanians with direct impact on poverty reduction through enhanced income generation; and • Improving skills development for Industrial production
Technology applied	High Tech Environmentally friendly machinery	• Enhancing technological transfer;

		and • Applied technology which is free from environmental pollution,
Other Implied Project Benefits		
▪ Increased sales to the Utility Companies providing services of electricity, water and sewerage, telecommunications; ▪ Increased business transacted by local banks and institutions providing financial services; ▪ Business opportunities for local entrepreneurs in market distribution channels, ▪ Business opportunities to contractors and sub-contractors during the minor construction phase; ▪ Increased regional intra-trade and international trade due to better infrastructure facility and links to markets; ▪ Increase of technology transfer & expertise to local employed staff, ▪ Capital spends in local economy over 1.264US$ Millions and ▪ Contribution to GDP growth through increased economic activities		

Based on the Impact Investment Index analysis, the company can develop projections that the project can deliver both value for money in the context of broad socioeconomic impact and return on investment while complying with governance requirements. In this regard therefore, **TANCHENG INTERNATIONAL MINING CO LIMITED** will promote the industrialization process in the country, create employment, attract new technologies, expand foreign exchange earnings and ultimately contribute substantially to the country's economic growth.

8.0. FINANCIAL MODELLING AND ANALYSIS

The Financial Modelling and analysis, is the main source of information for assessing the potential financial viability of the TANCHENG INTERNATIONAL MINING CO LIMITED. The analysis is based on the assumptions that have been taken for the implementation of the site development, demand and the associated potential investment requirements for a 5-year time period. The purpose of establishing integrated plant is to speed up the country´s economic development by being a catalyst for restructuring the existing local processing set up and attracting new, both foreign and domestic entrepreneurs to a liberalized legal business framework.

8.1. Project investment inputs

Expected quantities for production		
Sales projection	**Description**	**US$**
Working days per month	25.00	
Annual working days	300.00	
Hours for production per day	16.00	
Number of Machines for processing Molding	1.00	
Number of Machines for Beverage	1.00	
Annual Total production for Machines per day in KG Processing molding 16 Hours	8,000,000.00	
Annual Total production for Machines per day in beverage bottles 16 Hours	4,800,000.00	
Price per Unit gold ore/stone	0.65US$	
price of other raw materials	0.87US$	
	TZS	US$
Total sales annually gold products products	**1,565,217,391.30**	**680,529**
Total sales annually other materials	**1,252,173,913.04**	**544,423**
Sales in US$		**1,224,953**

8.2. Objective and Scope of Financial Model

8.2.1. Objective

The main objective of the financial modelling and analysis is to setup a financial model framework for potential generated revenues and operational & maintenance costs for the full operation of Tancheng International Mining Co Limited based on the assumptions taken for the Market Analysis, the plan for the facility development, unit production costs and other overhead and operational charges.

8.2.2. Scope

The scope consists of a financial model that will be used to analyse the potential financial viability of the project based on the assumptions taken for the concept and scope of the integrated processing factory on the Market Analysis. The financial model has been developed in excel spread sheet and include information on costs, expenses and the subsequent sales revenue based on the average market prices and linked to the financial cash flow.

ANNEX I – INCOME STATEMENT

(ALL NUMBERS IN US$)

REVENUE

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
REVENUE GOLD PROCESSING	-	680,529	714,556	750,284	787,798	827,188	3,760,354
REVENUE FOR OTHER MATERIALS	-	544,423	571,645	600,227	630,238	661,750	3,008,283
TOTAL OPERATING REVENUE	-	1,224,953	1,286,200	1,350,510	1,418,036	1,488,938	6,768,637

EXPENSES

	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
SALARIES		78,120	80,464	82,878	85,364	87,925	414,750
SOCIAL CHARGES & PENSION PAYMENTS		15,624	16,093	16,576	17,073	17,585	82,950
PURCHASE OF RAW MATERIALS		152,174	156,739	161,441	166,285	171,273	807,912
FUEL AND LUBRICANTS		29,325	30,204	31,110	32,044	33,005	155,688
ELECTRICITY AND WATER (UTILITIES)		26,087	26,870	28,213	29,624	31,105	141,898
FACTORY OVERHEAD COST		141,292	145,531	149,897	154,394	159,026	750,139
INSUARANCE/LICENSING/OTHER CHARGES		5,702	5,873	6,049	6,230	6,417	30,271
OTHER COSTS		2,609	2,687	2,768	2,851	2,936	13,850
TOTAL OPERATING COSTS		450,932	464,460	478,931	493,863	509,272	2,397,458
OPERATIONAL NET EARNINGS BEFORE DEPRECIATION, INTEREST & TAX		774,021	821,740	871,579	924,173	979,666	4,371,179
%AGE GROSS CONTRIBUTION		*63*	*64*	*65*	*65*	*66*	*1*
DEPRECIATION AT 12.5%		67,727	71,902	76,263	80,865	85,721	393,406
NET EARNINGS BEFORE TAX & INTEREST		706,294	749,838	795,316	843,307	893,945	3,977,773
INTEREST PAID (BANK LOAN)		-	-	-	-	-	-
TAX (30%)		232,371	246,697	261,659	277,448	294,108	1,312,283
NET EARNINGS		473,923	503,141	533,657	565,859	599,837	2,676,418

ANNEX II CASH FLOW

(ALL NUMBERS IN US$)	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
CASH FLOW FROM OPERATING ACTIVITIES					
CASH RECEIPTS FROM SALES	1,224,953	1,286,200	1,350,510	1,418,036	1,488,938
CASH PAID TO SUPPLIERS AND EMPLOYEES	(450,932)	(464,460)	(478,931)	(493,863)	(509,272)
CASH GENERATED FROM OPERATIONS	774,021	510,455	673,837	813,021	948,505
DIVIDENDS RECEIVED*	0	0	0	0	0
INTEREST RECEIVED	0	0	0	0	0
INTEREST PAID	0	0	0	0	0
TAX PAID	(232,371)	(246,697)	(261,659)	(277,448)	(294,108)
NET CASH FLOW FROM OPERATING ACTIVITIES	**541,650**	**263,758**	**412,178**	**535,573**	**654,397**
CASH FLOW FROM INVESTING ACTIVITIES					
REPLACEMENT OF EQUIPMENT	0	0	*0*	0	*0*
PROCEEDS** FROM SALE OF EQUIPMENT	0	0	*0*	0	0
NET CASH FLOW FROM INVESTING ACTIVITIES	**0**	**0**	**0**	**0**	**0**
CASH FLOW FROM FINANCING ACTIVITIES					
PROCEEDS FROM CAPITAL CONTRIBUTED	1,264,000	0	0	0	0
PROCEEDS FROM LOAN	0	0	0	0	0
PAYMENT OF LOAN	0	0	0	0	0
NET CASH FLOW FROM FINANCING ACTIVITIES	**1,264,000**	**0**	**0**	**0**	**0**
NET INCREASE/ DECREASE IN CASH	**1,805,650**	**263,758**	**412,178**	**535,573**	**654,397**
CASH AT THE BEGINNING OF THE PERIOD	473,923	503,141	533,657	565,859	599,837
CASH AT THE END OF THE PERIOD	**2,279,573**	**766,900**	**945,835**	**1,101,432**	**1,254,234**

ANNEX III BALANCE SHEET

(all numbers in US$)	Year 1	Year 2	Year 3	Year 4	Year 5
ASSET					
Current asset	473,923	503,141	533,657	565,859	599,837
Fixed asset	1,187,913	1,045,363	919,920	809,529	712,386
Liquidity	774,021	510,455	673,837	813,021	948,505
TOTAL ASSET	2,435,857	2,058,960	2,127,414	2,188,410	2,260,728
NET ASSET MINUS DEPRECIATION	**2,368,130**	**1,987,058**	**2,051,151**	**2,107,545**	**2,175,007**
EQUITY & LIABILITIES					
Equity	1,264,000	1,297,370	1,412,368	1,537,561	1,673,850
Reserves					
Total Own Equity	**1,264,000**	**1,297,370**	**1,412,368**	**1,537,561**	**1,673,850**
Provisions	804,033	371,089	300,860	211,671	121,328
Long term loan	0	0	0	0	0
Short term Liabilities	300,098	318,599	337,922	358,313	379,829
Total Equity & Liabilities	**2,368,130**	**1,987,058**	**2,051,151**	**2,107,545**	**2,175,007**
CL/CA	0.63	0.63	0.63	0.63	0.63
DEBIT/CAPITAL RATIOS	0.47	0.35	0.31	0.27	0.23
ROI	37.5	38.8	37.8	36.8	35.8
BREAK EVEN POINT	1.53	1.27	1.06	0.88	0.73
BREAK EVEN RATIO	0.97	0.95	0.94	0.92	0.91
EQUITY/TOTAL LIABILITIES	53	65	69	73	77

ANNEX IV – INTERNAL RATE OF RETURN

(all numbers in US$)

	Initial Investment	-1,264,000
Year 1	Additional Annual Net Profit	473,923
Year 2	Additional Annual Net Profit	503,141
Year 3	Additional Annual Net Profit	533,657
Year 4	Additional Annual Net Profit	565,859
Year 5	Additional Annual Net Profit	599,837
	IRR (in 5 years)	**15.02%**

The IRR above indicates that the expected return on the US$1,264,000 initial investment after 5 years is 15.02%.

ANNEX V – PAYBACK PERIOD

Payback Period Analysis

	Year	Beginning Balance	Net Cash Flows	Ending Balance
Cost of investment	0.00	1,264,000.0	0.00	1,264,000.0
	1.00	1,264,000.0	473,923.22	790,076.79
	2.00	790,076.79	503,141.38	286,935.40
	3.00	286,935.40	533,657.08	246,721.67
	4.00	246,721.67	565,859.31	812,580.98
	5.00	812,580.98	599,837.24	1,412,418.22

Payback Period =	**3.00**	**Years**

8.0. CONCLUDING REMARKS AND WAY FORWARD

8.1. Evidence of project viability based on financial model and policy framework support

On the basis of all the analysis done on this Business Plan on all aspects of assessment on both SWOC Analysis, market analysis, risk analysis and the financial analysis, the proposed investment options in the meat processing plant as prescribed on this business plan have shown that the project is commercially viable. Nonetheless, TANCHENG INTERNATIONAL MINING CO LIMITED through professional consultative manner, will continue to find ways of implementing cost effective options given time and financial resources that will be made available. Financial analysis results show that when the construction of integrated plant facility is financed 100% by shareholders it gives an IRR of about 15.02%. The computed IRR is well above Dollar market of the annual loan interest rate of (8.00%) which is technically interpreted that the project is financially viable. The payback period for the project is estimated at 3 years, which is within the range for this type of investment. Sensitivity analysis results also favor the project. Financial analysis for the project has shown feasible returns. Based on the investment scope and the assumptions taken in this Business Plan, the project will not face any difficulties during establishment, according to the projected cash flow be in a position to accomplish repayment of the loan and start generating profit.

8.2. Policy Framework Support

The development of the TANCHENG INTERNATIONAL MININ CO LIMITED is designed to tape advantages of the current Tanzanian market-oriented reforms. The Project will be developed and established to accelerate the industrialization process. The vision 2025 emphasizes the importance of the allocation of public funds for strategic investments and private sector financing for development investments.

The 15 years Perspective Plan (2015-2025); Priotize private investment in the context of Public Private Partnership. The First Five Years Development Plan (2020-2025)

recognizes the fundamental role of the private sector in enabling the government to allocate its fund to strategic projects to facilitate a higher level of development. MKUKUTA II (2020-2025) identifies Public Private Partnership as a means of increasing the level of stakeholder participation and of easing the financial burden on the government. It should be noted that existing public resources are clearly insufficient to meet Tanzanian's huge development needs. The increased use of private enterprises participation in development projects can help alleviate the financing gap. This approach is now applied by Tancheng International Mining Co Limited to ensure development of one among the ultra-integrated plant to be developed in Misungwi, Mwanza Region. Private sector and investment have been recognized as the most significant potential source of additional funding required to facilitate development projects.

8.3. Conclusive Remarks and Way Forward

The development of this integrated plant will be funded by private finances. The company acting through its various shareholders and structures will provide the initial risk capital amounting to 1,264,000 US$, the whole amount will be raised from shareholders. The company will fund the development of the project minor rehabilitations of factory building, business offices, bulk storage facilities and purchasing machines as stated on this business plan. Before the Company engages into the development of this project as a private enterprise, it needs to accomplish the pre development activities to make way for the development of the designated project. The company has to accomplish the following;

a) Apply for TIC certificate

The company by using this Business Plan and other required supporting documents should apply for the TIC Certificate at Tanzania investment centre or Mwanza zonal Office. with this certificate, the company will be able to access tax reliefs which to a large extent will help to in reducing project costs, particularly in the purchasing of machineries and minor building of area of proposed industrial area.

b) Conduct Environmental Impact Assessment.

The company has to engage a consultant to conduct EIA in order to ensure that environmental and possibly other sustainability aspects are considered effectively in policy, plan and project development. The EIA Directive aims at introducing systematic assessment of the environmental effects of strategic land use related plans and programs. It typically applies to regional and local, development, waste and transport plans, within the country. EIA ensures that plans and programs take into consideration the environmental effects they cause.

c) Minor rehabilitation to suit integrated Industrial requirement

The company should engage a firm to make minor rehabilitation of existing structure that will suit integrated manufacturing requirements. The structure should include all vital service facilities described in this business plan. When possible, the process of design of the facility should be consultative insomuch that it should allow and incorporate ideas from experienced professionals from the industry.

d) Mobilizing Funds

As previously discussed on the Financial Analysis of this business plan, financing mechanism for the integrated plant should be scrutinized well before commencing the project implementation. There may be several options of financing the project development but the company will find the best option. The investment team should do consultation with relevant financial institutions (Banks and non-bank Financial Institutions), both within and outside the country. This exercise should be more effective if the team works closely with central government agencies, particularly TIC and the Ministry of Industry & Trade and Ministry of Investment.