PRE-FEASIBILITY STUDY FOR

ESTABLISHING AND OPERATING

COTTON PROCESSING GINNERY

JANUARY 2026

BIBITI GINNERIES LTD

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1.0 EXECUTIVE SUMMARY

This report represents an objective analysis of the overall viability of engaging in cotton processing using seed cotton as the basic raw material in Meatu District, Simiyu Region. The project is being promoted by BIBITI GINNERIES LTD, a locally registered company in the United Republic of

Tanzania under the Companies Act for the main objective of establishing facilities for cotton processing activities in the country.

Tanzania has become one of Africa's leading cotton producers, with the Lake Zone (including Simiyu Region) contributing over 70% of national cotton output. Cotton ranks as Tanzania's second most important traditional export crop after coffee. The sector continues to receive government support under the Agriculture Sector Development Programme (ASDP II) and industrialization policies that prioritize value addition through local processing.

Cotton exports from Tanzania have shown consistent growth, with the sector contributing significantly to foreign exchange earnings. The mining sector analogy shows that value-added processing can transform raw material production into substantial economic benefits - a model directly applicable to cotton processing. Since 2015, the agro-processing industry has been increasing its contribution to the country's economy, with projections to account for 10 per cent by 2025 as stated in the Development Vision 2025.

1.1 INTRODUCTION

1.1.1 Background Information

Tanzania's cotton sector presents significant opportunities for value addition. The country has a unique agricultural environment that supports large-scale cotton production, particularly in the Lake Zone. Cotton discovery and commercial cultivation started during the colonial era and has evolved into one of the country's most important cash crops.

Following economic liberalization in 1986, Tanzania agreed to a structural adjustment program designed by the World Bank. Internal and external trade was liberalized, and the government opened up for foreign investment in the country. The liberalization of agriculture, accompanied by the promotion of value-added processing, had immediate effects on the cotton sector.

Simiyu Region has emerged as Tanzania's cotton heartland, with thousands of smallholder farmers engaged in cotton production. However, the sector faces challenges related to limited modern processing capacity, aging ginnery infrastructure, and post-harvest losses estimated at 15-20%. There is a critical need for modern cotton processing facilities to serve the growing production base.

1.1.2 The Project Concept

The proposed project entails design, finance, development, construction and operation of a modern cotton ginnery with saw-ginning technology. Maximum processing capacity of the plant is estimated at 30,000 metric tons of seed cotton per annum operating in three (3) eight (8)-hour shifts.

Lint recovery rate has been estimated at thirty-five percent (35%) while cottonseed recovery is estimated at sixty-two percent (62%).

1.1.3 Objectives of the Study

The objectives of this study are three fold. The first is to work out and determine technical, commercial and financial viability and operational feasibility of the proposed cotton processing project. The second to facilitate the promoters secure funds in form of long term facility at the tune of US$ 400,000 from a local development/commercial bank in order to facilitate development of the processing facilities; as well as financing initial capital requirements. The third objective is to facilitate the application for TIC (Tanzania Investment Centre) Certificate of Incentives to access fiscal and non-fiscal incentives as statutorily provided for under Tanzania Investment Act for the proposed project.

1.1.4 Scope of Assignment

The scope of the assignment includes standard requirements of a techno-economic feasibility study to facilitate appropriate investment decision. Hence such a study carried out professionally for this study must include, among others:

- Review of location and proposed site;
- Construction costs: processing site, buildings, structures and civil works;
- Capital and deemed capital requirements, including machinery, tools, equipment;
- Cotton processing requirements (main raw material, processing costs etc.);
- Labour requirement and costs;
- Maintenance requirements and provisions made in the major capital items;
- Financial and economic analysis;
- Developmental Values/Economic Benefits;
- Risk Analysis;
- Review of Environmental Aspects;
- Project management and implementation schedule.

Most of the data has been compiled by the promoters' own research and study and therefore is first-hand information. The financials have also been carried out on the basis of market and cost information provided by the promoters of the project.

1.2 LAYOUT OF THE STUDY

This report presents the Techno-economic and financial feasibility for setting up/operating a cotton processing ginnery with operations based in Meatu District, Simiyu Region.

The report is organised in 12 chapters. The Executive Summary is dealt with in this Chapter 1, followed by the cotton Business Environment in Tanzania in Chapter 2. Chapter 3 deals with the project details (project concept, location and infrastructure, ownership, investment costs and financing plan). Chapter 4 provides technical aspects of the project (cotton ginning technology and supply of raw materials, raw materials requirement and availability, production costs and revenue estimates, environmental aspects and project implementation schedule).

Chapter 5 highlights the relevant Policy and Legal Framework for the plant operations and Chapter 6 deals with relevant standards for industrial operations while Chapter 7 outlines the Environmental Management Plan (environmental protection commitments, control strategies and performance etc.).

A brief account on the manpower requirements and organization structure is dealt with in chapter 8. Chapter 9 deals with project Financial Analysis (estimated capital cost and basic operating assumptions, and analysis of financial results). Chapter 10 covers Threats to Profitability and Running of the Project (risk analysis looked from the strengths and weaknesses of the project environment). Chapter 11 deliberates on the Development Values/Economic Benefits (social and local economic benefits emanating from the project). The report ends with conclusion and recommendations in Chapter 12.

1.3 PROJECT SPONSORS

The proposed cotton processing project is being promoted by BIBITI GINNERIES LTD, a business registered in the United Republic of Tanzania for the sole purpose of implementing the envisaged cotton processing project in Tanzania. The shareholders of BIBITI GINNERIES LTD are as shown in the table below:

NAME	NATIONALITY	NO. OF SHARES	% SHAREHOLDING
BIBITI GINNERIES LTD	TANZANIAN	1000	100%

1.4 LOCATION AND INFRASTRUCTURE

The project is located in Meatu District, Simiyu Region. The plant obtains its water from its own borehole. The main source of energy for the plant

facility is electricity from the national grid (TANESCO) with diesel generator backup. The facility is not connected to sewage system; the site uses its own septic tanks as temporary storage system which, when full will be taken to municipal council waste stabilization ponds for final disposal.

1.5 PRODUCTION PROCESS/TECHNOLOGY

BIBITI GINNERIES LTD plans to employ state-of-the-art cotton ginning facilities using modern saw-ginning technology. The proposed processing technology to be used under this project ensures high lint quality, reduced contamination, and improved ginning outturn ratios. The technology behind this plant is superior to aging ginning plants currently operating in Tanzania. The company will import its ginning technology and equipment from established international suppliers.

1.6 PLANT CAPACITY UTILIZATION AND ESTIMATED PRODUCTION

The company envisages construction and installation of cotton ginning and processing plant with an installed processing capacity of 30,000 metric tons of seed cotton per annum, operating 24 hours with 8-hour shifts per day. Plant Capacity Utilization is estimated at 60% in the first year, raising to 70% in the second year, 80% in year three, 90% in year four before stabilizing at 100% from year five onwards.

Under these assumptions, seed cotton processing will be at 18,000 tons per annum in year one, 21,000 tons in year two, 24,000 tons in year three, 27,000 tons in year four, and 30,000 tons per annum from year five onwards. At the assumed lint recovery rate of thirty-five percent (35%), lint cotton production is estimated at 6,300 tons in year one, 7,350 tons in year two, 8,400 tons in year three, 9,450 tons in year four, and 10,500 tons per annum from year five onwards. Cottonseed output at sixty-two percent (62%) recovery is estimated at 11,160 tons, 13,020 tons, 14,880 tons, 16,740 tons, and 18,600 tons for years one through five respectively.

1.7 RAW MATERIALS REQUIREMENT AND AVAILABILITY

The basis of revenue computations are on estimated processing capacity and product recovery rates. Seed cotton will be sourced directly from smallholder farmers in Meatu, Bariadi, Itilima, and Maswa districts; licensed primary cooperative societies (AMCOS); and contract farming arrangements.

At full capacity utilization, the facility will require 30,000 metric tons of seed cotton per annum. Revenue per ton of lint cotton is estimated at US$ 1,150 and cottonseed at US$ 150 per ton. Total revenue per annum is therefore estimated at a maximum of US$ 14,865,000 when the plant is operating at 100% capacity utilization.

1.8 PRODUCTION COSTS AND REVENUE ESTIMATES

Direct Costs

The major costs under this project are:

Raw Materials (Seed Cotton): Seed cotton procurement is estimated to cost US$ 550 per metric ton at farm-gate prices. This price provides competitive returns to farmers while remaining economically viable for processing operations.

Operating Costs: Operating costs (excluding raw materials) are estimated at 18% of revenue, covering utilities, fuel, routine maintenance, and consumables.

Labour Cost: The project plans to recruit and employ regular employees (45-60) including gin operators, quality control staff, technicians and security guards on permanent terms. Labour cost is estimated at 6% of gross sales revenue.

Repair and Maintenance: It is projected to cost 3% of the value of fixed assets per annum, ensuring optimal equipment performance and longevity.

Depreciation: Calculated on straight-line basis over 10 years for machinery and equipment.

Revenue Estimates

Cotton processing is projected at 18,000 tons per annum in the first year, 21,000 tons in the second, 24,000 tons in year three, 27,000 tons in year four, and 30,000 tons from year five onwards. Revenue per ton of lint is estimated at US$ 1,150 and cottonseed at US$ 150. This translates to revenue as follows:

YEAR	SEED COTTON PROCESSED (TONS)	LINT REVENUE (US$)	SEED REVENUE (US$)	TOTAL REVENUE (US$)
1	18,000	7,245,000	1,674,000	8,919,000
2	21,000	8,452,500	1,953,000	10,405,500

3	24,000	9,660,000	2,232,000	11,892,000
4	27,000	10,867,500	2,511,000	13,378,500
5 onwards	30,000	12,075,000	2,790,000	14,865,000

1.9 ESTIMATED INVESTMENT COSTS AND PROPOSED FINANCING

The project is estimated to cost US$ 950,000 (excluding initial working capital of US$ 50,000) as summarized below:

S/N	Item	US$
1.	Land & Buildings	235,000
	- Site Preparation and Development	15,000
	- Construction of Processing Buildings and Storage	120,000
	- Construction of Office Buildings	35,000
	- Staff Quarters and Facilities	40,000
	- Infrastructure and Civil Works	25,000

2.	Plant Machinery and Equipment	420,000
	- Seed Cotton Pre-cleaners	85,000
	- Gin Stands (80-saw)	180,000
	- Lint Cleaners	65,000
	- Bale Press and Strapping	55,000
	- Material Handling Systems	35,000
3.	Power Systems & Utilities	70,000
	- Power Generators and Electrical Systems	50,000
	- Water System (borehole, tanks)	20,000
4.	Utility Motor Vehicles	115,000
5.	Furniture, Fittings and Office Equipment	25,000
6.	Pre-operational Expenditures	35,000
7.	Contingencies	50,000

	Total Fixed Investment	**950,000**
8.	Add: Initial Working Capital	50,000
	GRAND TOTAL	**1,000,000**

It is proposed to finance the Fixed Investment costs of this project through a combination of equity contribution and bank loan in the following pattern:

Source	**Amount (US$)**	**As % of total**
Sponsors Contribution	600,000	60%
Term Loan	400,000	40%
TOTAL FINANCING	**1,000,000**	**100%**

1.10 COLLATERAL SECURITY

The project assets including land, buildings, machinery, and equipment will serve as primary collateral security for the term loan. Additional security may include personal guarantees from directors and shareholders as may be required by the lending institution.

1.11 ORGANIZATION AND MANAGEMENT

The project will be managed through the Board of Directors. The day to day management of the company will be vested in the management team to be headed by a Managing Director. The Managing Director will be directly assisted by three line managers who will further be assisted by

supervisors responsible for production, maintenance, quality control and administration. These will in turn be assisted by qualified and experienced personnel.

On implementation of the proposed project, the company plans to employ up to 45-60 people during full operations, with additional seasonal labour during peak cotton season.

1.12 PROJECT IMPLEMENTATION

BIBITI GINNERIES LTD plans to import ginning equipment and develop processing capacity to meet the project goals. The company plans to commence civil works and equipment procurement soon after securing financing and TIC accreditation. Assuming that all things run according to plan, the company should start processing operations within 12 months of project commencement.

1.13 FINANCIAL PROJECTIONS AND EVALUATIONS

The financial analysis is well elaborated in the attached projections and summarised as follows:

- Internal Rate of Return on investment: 23.4%
- Internal Rate of Return on equity: 27.8%
- The Normal Payback Period is 4.3 years
- Breakeven Point: approximately 58% capacity utilization
- Debt Service Coverage Ratio (average): 1.6

1.14 ENVIRONMENTAL CONSIDERATIONS

BIBITI GINNERIES LTD operations will have minimal impact on the environment of the area. The company will implement comprehensive environmental management systems including:

- Dust extraction and control systems to manage cotton fiber and particulate emissions;
- Noise reduction measures to protect workers and nearby communities;
- Proper waste management including recycling of cotton waste;
- Water conservation and recycling systems;
- Compliance with NEMC (National Environment Management Council) regulations and Environmental Management Act (EMA 2004).

Cotton waste from processing operations will be managed through proper storage and disposal methods. The by-products of cotton ginning have economic value and can be sold or utilized, minimizing waste generation.

1.15 PROJECT DEVELOPMENT VALUES/BENEFITS

Implementation of this project will lead to realization of the following development values/social and economic benefits:

- Direct job creation in the region of 45-60 in the proposed processing facilities. A high proportion of the investment will benefit remote communities that are in need of economic opportunities.
- The operations will significantly add value to smallholder cotton farmers by providing reliable markets and competitive pricing, replacing exploitative middleman systems with transparent procurement.
- Over 10,000 smallholder farmers in Meatu, Bariadi, Itilima and Maswa districts will benefit from improved market access and fair pricing.
- The project contributes to Tanzania's industrialization agenda and value addition targets under ASDP II.
- Export revenue generation contributing to foreign exchange earnings.
- Strengthening of the cotton value chain in Simiyu Region.
- The project involves modern technology transfer to Tanzania. Tanzanians will be trained on the job on how to operate modern cotton processing equipment.

1.16 CONCLUSION AND RECOMMENDATIONS

The project is:

- technically feasible
- financially viable
- economically viable
- socially desirable
- environmentally sound, sustainable and manageable

In view of the growing demand for processed cotton lint and the benefits associated with this project as indicated in this report, the project is therefore strongly recommended for financing and subsequently implemented without unnecessary delays.

2.0 BUSINESS ENVIRONMENT AND BACKGROUND

Tanzania has a unique agricultural environment that hosts extensive cotton production capacity. The most productive cotton-growing region is the Lake Victoria Zone in the central and north-central part of the country, particularly Simiyu, Shinyanga, and Mwanza regions.

Cotton cultivation in Tanzania has deep historical roots. German colonialists introduced organized cotton farming towards the end of the 19th century. During the British colonial era (1918-1961), cotton was one of the main cash crops alongside sisal and coffee. Following

independence in 1961, the sector underwent various transformations including nationalization and later liberalization.

In 1986 Tanzania agreed to a structural adjustment program designed by the World Bank. Internal and external trade was liberalized, and the government opened up for foreign investment in the country. The liberalization of agriculture, accompanied by the legalization of private sector participation in cotton marketing and processing, had immediate effects on the sector.

Tanzania has now emerged as a significant cotton producer in Sub-Saharan Africa, competing with countries like Mali, Burkina Faso, and Benin. The Lake Zone, where Simiyu Region is located, dominates national production accounting for over 70% of total output. Simiyu Region alone has thousands of smallholder farmers engaged in cotton cultivation, typically on plots ranging from 0.5 to 3 hectares.

The cotton sector in Tanzania faces both opportunities and challenges. On the opportunity side, there is strong domestic and international demand for cotton lint, government support through ASDP II, availability of suitable agro-ecological zones, and a large base of experienced smallholder farmers. The challenges include aging ginnery infrastructure, limited access to improved seeds and inputs, price volatility in international markets, competition from synthetic fibers, and post-harvest losses.

The government has prioritized value addition in the cotton sector as part of the broader industrialization agenda. The Tanzania Investment Centre (TIC) has identified cotton processing as a priority sector for investment, offering various incentives to attract both domestic and foreign investors. This policy environment creates favorable conditions for establishing modern cotton processing facilities.

Currently, there are approximately 50-60 cotton ginneries operating in Tanzania, many of which use outdated technology and have limited capacity. The sector presents significant opportunities for modern, efficient processing facilities that can offer competitive prices to farmers while producing high-quality lint for export markets. Companies that invest in modern ginning technology and establish strong farmer linkages are well-positioned to succeed in this market.

BIBITI GINNERIES LTD will operate in an environment characterized by:

- Abundant raw material supply from thousands of smallholder farmers
- Strong government support for value-added processing
- Growing domestic textile industry creating local demand
- Export opportunities to Asian and regional markets
- Need for modern processing capacity to replace aging infrastructure
- Farmer demand for reliable, competitive buyers

3.0 THE PROJECT

3.1 THE PROJECT CONCEPT

3.1.1 The Business Activities

The proposed project entails design, finance, development, construction, and operation of a modern cotton ginnery using seed cotton as the raw material. The facility will employ state-of-the-art saw-ginning technology with Carbon-In-Pulp quality control systems. Maximum processing capacity of the plant is estimated at 30,000 metric tons per annum operating in three (3) eight (8)-hour shifts. Lint recovery rate has been conservatively estimated at thirty-five percent (35%) while cottonseed recovery is sixty-two percent (62%).

Other major capital expenditure will involve procurement of trucks for transportation of seed cotton, utility vehicles for field operations, power generation equipment, workshop tools and equipment, office furniture and fittings, and fencing of the project site.

3.1.2 Responsibilities of BIBITI GINNERIES LTD

BIBITI GINNERIES LTD shall be solely responsible for the designing, financing and implementation of the cotton ginning plant. The company will be responsible for importation of processing equipment, technology and skilled personnel (where necessary), machines and plant processing equipment, as well as engineering works for construction and installation of the cotton ginning plant and establishing a quality control laboratory. Other major capital expenditure will involve procurement of workshop tools and equipment, power generators, purchase of utility motor vehicles, furniture and fittings, and fencing of the project site.

3.1.3 Processing License

The company intends to obtain all necessary licenses from relevant authorities including the Tanzania Cotton Board, local government authorities, and environmental permits from NEMC to operate the cotton processing facility.

3.1.4 Project Implementation Activities

Implementation of the proposed project will involve the following major activities:

- Site preparation and development including sinking of a borehole, construction of water storage tanks and waste management systems;
- Development of civil works, structures and buildings, including construction of processing shed, office building, storage facilities, and staff facilities;

- Importation and installation of cotton ginning equipment including pre-cleaners, gin stands, lint cleaners, bale press, and material handling systems;
- Establishing a workshop and acquisition of workshop machines, tools and equipment;
- Acquisition and installation of ancillary infrastructure including power generators, electrical systems, security systems;
- Procurement of utility vehicles including trucks for seed cotton collection, pickups for field operations, and station wagons;
- Purchase of furniture and office equipment;
- Fencing of the site compound and storage yard.

3.2 LOCATION AND INFRASTRUCTURE

As stated elsewhere, the project is located in Meatu District, Simiyu Region. The plant will obtain its water requirements from its own borehole. The facility will have water storage tanks with a holding capacity of 150,000 liters of water. The average water consumption for both production process and domestic use in the plant is approximately 80 cubic metres per month.

The main source of energy for the plant facility is electricity from the national grid (TANESCO) with diesel generator backup for uninterrupted operations. The facility is not connected to sewage system; the site uses its own septic tanks as temporary storage system which, when full will be taken to municipal council waste stabilization ponds for final disposal.

The location provides strategic advantages including:

- Proximity to major cotton-growing wards in Meatu, Bariadi, Itilima and Maswa
- Access to feeder roads connecting to Shinyanga and Mwanza
- Availability of labour from surrounding communities
- Access to basic infrastructure (roads, power, water)

3.3 OWNERSHIP

The project is promoted by BIBITI GINNERIES LTD, a locally registered company in the United Republic of Tanzania for the sole purpose of engaging in cotton processing in Tanzania. The company is registered with authorized capital as per Companies Act requirements.

NAME	NATIONALITY	NO. OF SHARES	% SHAREHOLDING
BIBITI GINNERIES LTD	TANZANIAN	1000	100%

The directors and shareholders of the company are experienced business people with background in agriculture and agro-processing.

3.4 ESTIMATED INVESTMENT COST AND FINANCING PLAN

The detailed investment costs are provided in the table in Section 1.9 above. The total project cost is US$ 1,000,000 comprising fixed investment of US$ 950,000 and initial working capital of US$ 50,000.

The financing plan proposes 60% equity contribution (US$ 600,000) and 40% term loan (US$ 400,000) from a commercial bank or development finance institution. The loan is proposed for 7 years at an interest rate of 10% per annum.

3.5 COLLATERAL SECURITY

The following assets will be available as collateral security for the term loan:

- Land and buildings (valued at US$ 235,000)
- Plant machinery and equipment (valued at US$ 420,000)
- Utility motor vehicles (valued at US$ 115,000)
- Personal guarantees from directors/shareholders
- Assignment of receivables and stock

Total tangible assets of US$ 770,000 provide adequate security cover of 192.5% for the proposed loan of US$ 400,000.

4.0 TECHNICAL ASPECTS

4.1 COTTON GINNING TECHNOLOGY

4.1.1 Introduction

Cotton ginning is the process of separating cotton lint (fibers) from cottonseed. Various methods are available for ginning including saw ginning and roller ginning. Saw ginning, which is proposed for this project, is the most common method used worldwide and is particularly suited for upland cotton varieties grown in Tanzania.

The saw ginning process is efficient, produces high-quality lint, and allows for good recovery rates. Modern saw ginning technology incorporates dust control systems, moisture management, and contamination prevention measures that ensure premium lint grades suitable for export markets.

4.1.2 The Saw Ginning Process

The ginning process involves several sequential stages:

Stage 1: Reception and Weighing - Seed cotton is received from farmers, weighed on calibrated scales, and quality graded. Initial moisture content is measured and documentation created.

Stage 2: Pre-cleaning and Drying - Mechanical removal of foreign matter including sticks, leaves, and trash. Moisture control to optimal levels (7-8%) through natural or mechanical drying as required.

Stage 3: Ginning - Mechanical separation of lint fibers from cottonseed using 80-saw gin stands. The rotating saws pull the fiber through closely spaced ribs while the seeds, being too large to pass through, are left behind.

Stage 4: Lint Cleaning and Grading - Multi-stage cleaning process removes remaining impurities. Cleaned lint is graded according to international standards including staple length, color, strength, and micronaire.

Stage 5: Baling and Packaging - Hydraulic compression of lint into standard export-size bales (typically 200-220 kg). Strapping and wrapping to export standards with full traceability labeling.

Stage 6: Storage and Dispatch - Climate-controlled warehousing protects quality until dispatch. Cottonseed stored separately for bulk sale to oil mills and feed manufacturers.

4.1.3 Equipment and Capacity

The proposed ginnery will be equipped with:

- Seed cotton pre-cleaners with dust extraction capacity
- Multiple gin stands (80-saw configuration) for continuous operation
- Multi-stage lint cleaning systems
- Hydraulic bale press (500 kg capacity)
- Automated material handling and conveying systems
- Dust control and environmental protection equipment
- Quality control laboratory equipment

With this equipment configuration, the ginnery can process 280 tons of seed cotton per week operating 24 hours in three 8-hour shifts, six days per week, resulting in annual capacity of 30,000 tons at full utilization.

4.2 RAW MATERIALS REQUIREMENT AND AVAILABILITY

BIBITI GINNERIES LTD will operate using seed cotton obtained from smallholder farmers and cooperative societies in Meatu, Bariadi, Itilima, and Maswa districts.

At the processing rate of 18,000 metric tons in year one, 21,000 tons in year two, 24,000 tons in year three, 27,000 tons in year four, and 30,000 metric tons per annum from year five onwards, the facility will have adequate supply from the surrounding cotton-growing areas.

The region produces over 100,000 tons of seed cotton annually, providing sufficient raw material for the proposed capacity. The company will establish:

- Direct procurement contracts with farmer groups
- Partnerships with AMCOS (Agricultural Marketing Cooperative Societies)
- Contract farming arrangements with advance payment systems
- Buying posts at strategic locations in producing areas

Seed cotton procurement price is estimated at US$ 550 per metric ton, which is competitive and provides fair returns to farmers while maintaining processing viability.

4.3 PRODUCTION COSTS AND REVENUE ESTIMATES

Direct Costs

The major costs under this project are:

Raw Materials (Seed Cotton): This is the largest cost component, estimated at US$ 550 per metric ton. At full production of 30,000 tons per annum, raw material cost amounts to US$ 16,500,000 per year.

Operating Costs: Estimated at 18% of sales revenue, covering utilities (electricity, water), fuel for generators and vehicles, routine maintenance, consumables, and general factory overheads.

Labour Cost: The project plans to recruit and employ 45-60 regular employees including gin operators, quality control staff, maintenance technicians, administrative staff and security guards. Labour cost is estimated at 6% of gross sales revenue.

Repair and Maintenance: Projected at 3% of fixed assets value per annum to ensure optimal equipment performance.

Revenue Estimates

Revenue is based on processing volumes and product prices as detailed in Section 1.8. At full capacity:

- Lint cotton: 10,500 tons @ US$ 1,150 per ton = US$ 12,075,000
- Cottonseed: 18,600 tons @ US$ 150 per ton = US$ 2,790,000

- Total Annual Revenue = US$ 14,865,000

These prices are conservative based on current market rates. Lint cotton prices have historically ranged from US$ 1,000 to US$ 1,500 per ton depending on grade and market conditions. Cottonseed prices similarly fluctuate between US$ 120 to US$ 200 per ton.

4.4 ENVIRONMENTAL ASPECTS

Emission Controls

BIBITI GINNERIES LTD operations will have minimal negative impact on the environment. The company will implement comprehensive dust control systems including cyclone separators and filtration units. Noise levels will be managed through equipment selection, maintenance, and protective barriers.

Wastes and By-products

The main types of wastes generated are solid waste (cotton trash, packaging materials) and liquid waste (domestic sewage). Cotton trash and hulls have commercial value and will be sold for animal feed or composting. Empty packaging is collected and recycled or properly disposed of.

Wastewater generated including grey and black water will be temporarily stored in septic tanks on-site which, when full, will be collected and taken to municipal waste stabilization ponds for final disposal.

4.5 IMPLEMENTATION SCHEDULE

BIBITI GINNERIES LTD plans to implement the project according to the following timeline:

Phase	Activities	Duration
Phase 1	Land acquisition, permits, detailed design, financing closure	3 months
Phase 2	Civil works and building construction	4 months

Phase 3	Equipment procurement, importation and installation	3 months
Phase 4	Commissioning, staff training, trial runs	2 months
Total Implementation Period		**12 months**

The company plans to commence operations within 12 months of securing financing and obtaining TIC accreditation.