
Name of Project: Region 2 Community Forestry Group Sawmilling Facility

Name of Developer: Guyana Forestry Commission

Project Address: Tract 6 being portion of Plot 2, Section 'A' Anna Regina, Essequibo Coast

Contact Details: 226-7271-4 Ext 255, 231

Project Type: Sawmill

Projected Initial Capital Investment: Thirty (30) million GYD

Date Prepared: 22nd January 2025

Prepared By: Guyana Forestry Commission

PROJECT DESCRIPTION

Project Location

The sawmill site comprises of a total of 0.3 hectares (66.6 feet by 177 feet) that is located at Tract 6 being portion of Plot 2, Section 'A' Anna Regina, Essequibo Coast, Region 2 which is located in the industrial site. The main access point to the area is the Industrial Site Road from the Wastern direction. The site is surrounded by industrial businesses - lumber yard and sawmill. The GPS point of the location is 21 N 0335315 UTM 0803315. Currently, the land is bare characterized by natural vegetation - grass.

The selection of an industrial zone for this sawmill location is a key factor in its overall environmental and social profile. The prevailing land use in the surrounding area is, as expected, dominated by a variety of existing sawmilling operations and a number of associated ancillary businesses, creating a cohesive industrial landscape. A comprehensive environmental and social screening of the area by the developers has specifically identified the absence of several critical features that often pose challenges for such developments. This includes, but is not limited to, sensitive ecosystems, legally protected areas, or major natural watercourses. Critically, no threatened or endangered flora and fauna have been identified in the vicinity. Furthermore, the area is deliberately sited away from human settlements and key public infrastructure, ensuring no residences, places of worship, schools, hospitals, river or sea defense structures are situated nearby, thereby minimizing potential community and environmental impacts.

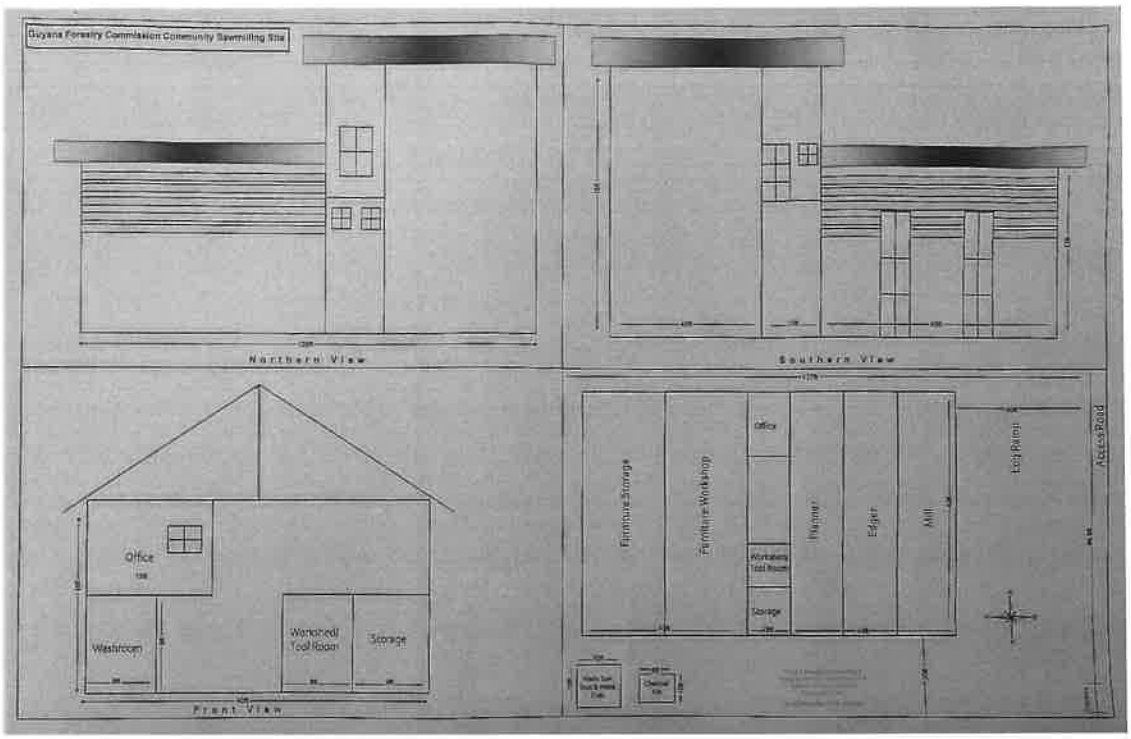

Figure 1 – Proposed Site Plan

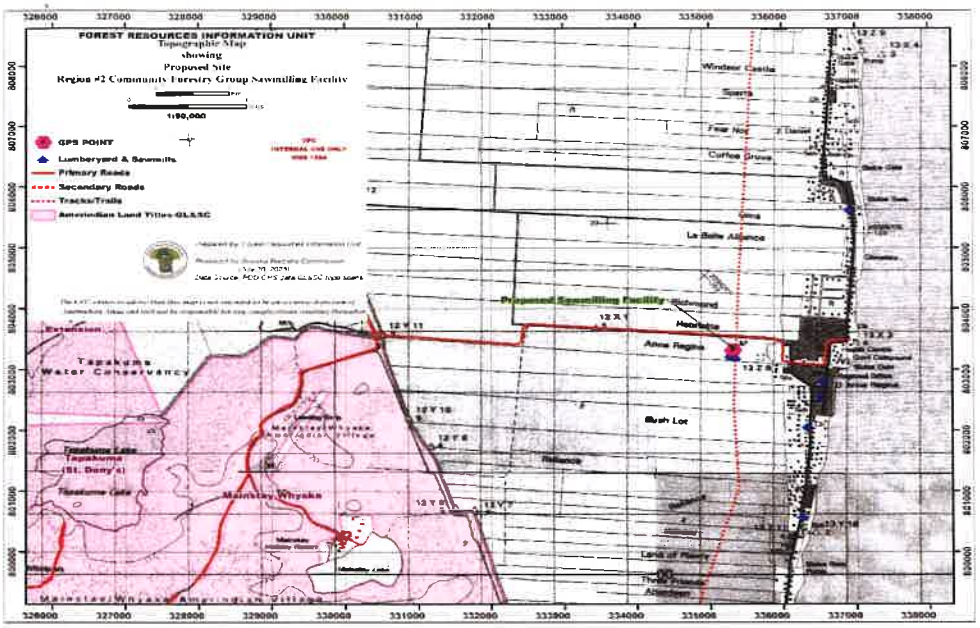

Figure 2 - Site Map with Surrounding Area

Project Overview

The proposed project entails the establishment and operation of a small-scale sawmill facility strategically designed to meet the growing demand for high-value timber products locally and regionally. This facility will specialize in converting locally sourced logs into high-quality sawn wood, catering to a diverse range of applications. Further to lumber production, the facility will also produce specialty wood products such as furniture, cabinetry, and craft applications. An important element of this project is demonstration and application of wood waste management principles. In this regard, a charcoal kiln retort will be erected to utilize which will utilize more than 75% of the wood waste (wood chips, sawdust, etc.). Various technologies will be involved, including portable sawmill to process logs to lumber, auxiliary processing machinery to improve efficiency and recovery rates, produce furniture, and charcoal.

This initiative is made possible through strategic financial support from the European Union through it Sustainable Forest Livelihood programme, a critical effort aimed at

promoting eco-conscious forestry practices and enhancing socio-economic conditions in forest-dependent communities. Therefore, this sawmilling facility is not only a local asset but is part of a broader movement toward sustainable resource use.

In this context, oversight and regulatory guidance will be provided by the Guyana Forestry Commission ensuring that all operations comply with national forestry laws, environmental standards, and forest management principles. The GFC will also play an integral role in providing technical guidance in all phases of the sawmilling operation. The day-to-day operation and strategic direction of the facility will be entrusted to the local communities allowing for localized decision making, inclusive participation, and equitable benefit sharing mechanisms.

A fundamental principle guiding this project is a steadfast commitment to sustainable practices, ensuring that its operations are conducted with minimal environmental impact. Furthermore, the facility will adhere rigorously to all relevant environmental compliance standards, and its operations are specifically structured to generate tangible community benefits, contributing positively to the local economy and workforce.

Project Objectives

- To support small-scale producers by providing accessible processing services for community members and small business who rely on timber.
- To create local employment and skills building opportunities in wood processing, carpentry, machinery operation, and maintenance.
- To assist forest-dependent communities with generating revenue through the production and sale of milled lumber, furniture, and other timber products locally and regionally.
- To demonstrate efficient timber waste management techniques through improved technologies in log processing, repurposing of offcuts, wood chips, and sawdust.

Product Line

The operational objective of this sawmill is to produce finished lumber products across a broad spectrum of specifications, designed to directly address the material needs of a diverse clientele. This includes, but is not limited to, individual homeowners and property

owners undertaking renovations or new constructions, professional builders and contractors requiring reliable timber for large-scale developments, specialized joiners seeking high-quality wood for intricate work, and various other industrial and retail consumers.

The facility's production capabilities will yield a wide array of essential timber components, such as exterior sidings, structural pilings, resilient pier decking, interior flooring, decorative paneling, and versatile timber squares. Each product will be crafted to industry standards, ensuring suitability for its intended application.

A cornerstone of our production strategy is the utilization of a carefully selected range of local timber species, encompassing both softwoods and hardwoods. Key species to be processed include the naturally durable Walaba, Silverballi, Greenheart, Mora, Purpleheart, among others that are locally available in the region.

Rate/Quantity of Production

From an output perspective, the sawmill will be designed for substantial productivity. Initial projections indicate that the facility will process a minimum of ***6,000 board meters of lumber per month***, demonstrating a significant capacity to contribute to the local and regional timber supply chain.

Infrastructure

The propose land area for the sawmill will be levelled and graded, where the sawmilling facilities and accompanying structure will be built.

Power & Other Utilities

For the operational needs of the sawmilling facility, electricity will be sourced from the Guyana Power and Light (GPL) service. This is a straightforward process, as the necessary power lines are already fully established and operational within the industrial zone where the facility will be established. Similarly, the supply of water will be sourced through the Guyana Water Incorporated (GWI), benefiting from the fact that all essential water lines were pre-existing in specific area.

Waste Management

To manage human waste effectively, a septic tank will be built. When this tank becomes full, its contents will be disposed of by professional waste disposal services that operate within Region 2. Additionally, specialized equipment, including dust collectors and a containment structure, will be put in place. These will serve to gather all sawdust and any leftover wood ends generated during operations. Once collected, these materials will then be transported to a kiln to be transformed into charcoal.

Capital Investment

The entire operation is expected to come on stream within 6 months and an investment of GYD 30 million is expected to be made.

Employment

The operation of the sawmill will need a full employment count of twelve (12) daily workers working during operation schedule of Monday to Saturday, 8:00 AM to 5:00 PM

Life of the Project

The project is expected to last for at least 20 years

PROJECT DESIGN - STAGES OF DEVELOPMENT

Construction Phase

Primary Sawmill Facility Details

Description: The structure will be supported by wooden posts, frames and walls with aluminum zinc roofing

Total Size: 45 ft. (width) x 85 ft. (length)

Duration of Construction: Approximately three months (subject to weather conditions)

Labor Force: 10 person

OPERATIONAL PHASE

Equipment to be Installed: The sawmill will utilize energy-efficient equipment, they include (*Refer to Appendix 1 for layout of sawmill & image of equipment*);

1. LT 70 Mill
2. Edger
3. Band Saw
4. Wood Lethe

Electrical Support: electrical equipment will be installed by a certified electrician with electricity from the GPL grid

Sawmill Capacity: LT 70 which will produce approximately 7 cubic meter per day

Storage: a temporary shed will be built for lumber storage until a lumber storage bond is built during the second year of operation. Lumber racks and dunnage will be used for log storage.

Production: the sawmill is projected to produce lumber at a rate of 6,000 BM on a monthly basis

Utilities:

- Electricity: electricity from the Guyana Powder & Light
- Water: supply from Guyana Water Incorporated

Work Force:

- Employees - 12 daily workers

- Hours of Operation - Monday to Saturday, 8:00 AM to 5:00 PM
- Safety Equipment – workers will be provided with PPEs including gloves, visibility vests, helmets, goggles, and steel-tip boots.

Health & Safety Measurers

- A First Aid Kit will be available on site, it will be checked and refilled on a weekly basis
- A vehicle is on standby for emergencies
- Fires extinguishers and sand baskets are strategically place onsite and "No Smoking" signs are prominently displayed

Duration of Project: The project is expected to last for at least 20 years

ENVIRONMENTAL IMPACT AND MITIGATION MEASURERS

Impacts on Land/Soil

The only impact to soil will be in the initial phase during the levelling of the land which will entail that the vegetation will be removed.

Mitigation: None Required

Impacts to Air

Impact to air can be in the form sawdust and exhaust fumes from machinery

Mitigation: Air Quality Control

- Dust and emissions will be minimized using dust collectors/ containment bins and well-ventilated workspaces.
- Sawdust will be removed regularly and floors are periodically wetted to control dust
- Sawdust and wood ends will be processed in a charcoal kiln what will be placed on the site to produce charcoal
- Wood waste such as sawdust and shavings will be distributed locally to poultry and cash crop farmers while offcuts will be distributed to the community for revetment and small building projects

Noise and Vibrations

Noise will be produced from the machinery and equipment operated on the sawmill, However, this is expected to be insignificant and localized as well as below the EPA limit for industrial operations of 100 dB.

Mitigation: Noise Control

- Equipment will be maintained to minimize noise pollution, and operations will be restricted to daylight hours. Servicing of equipment will comply with the Guyana National Bureau of Standards (GNBS) guidelines for noise emission.
- Personal Protective Equipment will be provided to employee
- Equipment and machinery will be equipped with the requisite muffler devices

Impact on Water

There will be no impact to water

Waste Management

Solid Waste

Mitigation:

- Non-wood waste will be properly segregated and disposed of per local regulations (Town Council & RDC).
- Wood waste will be repurposed into furniture, craft, and charcoal.

Effluent Management

Mitigation: Graywater and sewage are treated in a septic tank that will be emptied as needed by a disposal service.

Hazardous Waste

***Mitigation*:** Waste oil from machinery maintenance will be stored and distributed to chainsaw operators along the Essequibo Coast.

Fire Risks

Mitigation Measure

- Fire extinguishers and sand buckets are readily available
- Staff are trained in fire safety and extinguisher use
- Regular inspections of the electrical systems will reduce fire risks.

SOCIAL AND ECONOMIC BENEFITS

- The sawmill will create approximately 200 jobs in the local communities, both directly and indirectly.
- The project will contribute to the regional economy by supplying locally produced wood products.
- Supply byproducts such as saw dust and offcuts to the communities on the Essequibo Coast
- Support the advancement of operations for Community Forestry Groups on the Essequibo Coast through value adding

COMPLIANCE AND PERMITS

The project will adhere to all environmental, safety, and forest regulations required by the licensing agency. Key permits to be obtained include:

- Environmental Authorization & Permit - EPA
- No objection from the Anna Regina Town Council
- Approval letter from Central Housing and Planning Authority
- Permit to Erect – GFC
- Sawmilling License - GFC

CONCLUSION

This small-scale sawmill project has been designed with sustainability and environmental responsibility as key priorities. By following best practices in timber sourcing, waste management, and operational efficiency, the facility aims to minimize its environmental footprint while contributing positively to the local communities and Community Forestry Groups in Region 2.

APPENDIX 1

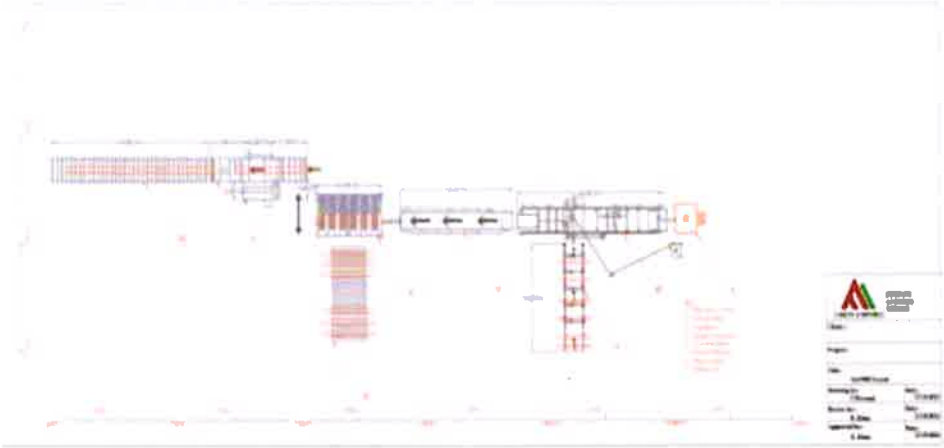

Figure 1 - Layout of Mill

Value Added Equipment Provided Under the Project


Hand Plane


Circle Table Saw


Edger


Set Square

Measuring Tape (linear)


Drill Press – Klutch


Hash Clamp


Circle Saw Blade Sharpener


Sleeve 10"Jointer


Micro - Saw (Miter Saw)


Band-Saw


Wood - Lathe

Value Added Equipment Provided Under the Project


Planner Jointer

Cross-cut Saw


Router


Palm Sander


Rip-Saw


Hand Battery


Jig -Saw


Power Drill


Angle Grinder


Belt Sander


Router Bits (1/2")


Air Compressor (60 Gallons)

Figure 1, 2, 3 & 4 – Sawmill Equipment