

# Trans- Amazon Trading (TAT) Project Summary Application for an Environmental Authorization





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## FOREWORD

Trans -Amazon Trading (TAT) will be investing approximately one (1) million USD to establish a state-of-the-art wood processing facility to include sawn lumber and value-added production such as: furniture manufacturing, charcoal and briquette production and packaging, the use of NTFP for furniture production, prefab homes, wooden toys, ornaments, axes, hammer handle and other associate wooded products for multiple purposes.

This project will grasp the opportunity provided by 5.6 acres (approximately 2.6 ha) of industrial land to create a major positive impact on the forestry sector.

Trans -Amazon Trading (TAT) is currently engaged with local and foreign expertise businesses to introduce state of the art technology in wood processing and value added for the forestry sector.

This project is testimony to Trans- Amazon Trading, that the forest industry will (re) emerge as a major economic sector within a few years to the extent that Trans -Amazon will directly contribute to the enhancement of forest products through processing, manufacturing, or improved management, resulting in higher market value, more jobs, and better economic returns by December 2026.









## ACRONYMS

AoI	Area of Influence
CH&PA	Central Housing and Planning Authority
VoC	Volatile organic Compounds
EPA	Environmental Protection Agency
FTCI	Forestry Training Centre Inc
FLEGT	Forest law Enforcement, Governance and Trade
GFC	Guyana Forestry Commission
GSA	Guyana School of Agriculture
ISO	International Standard Organization
LC	Large Concession
NDC	National Democratic Council
PM	Particulate Matter
SFA	State Forest Authorisation
TAT	Trans -Amazon Trading
UG	University of Guyana







## **INTRODUCTION**

### **1.1 Corporate profile**

#### **1.1.1 Business location and contact details**

Trans -Amazon Trading (TAT) has been involved in harvesting and processing of wood products for local and export sales for the past there (3) decades and has a wealth of knowledge of the business and investment environment, hence, the establishment of this company.

The registered address and other contact details for the enterprise are as follows:

- a) Registered Office, HQ: Lot 35 Silver City, Linden, Region 10
- b) Factory Office: Tract TAT, Yarrowkabra Linden Soesdyke Highway
- c) Telephone Office: 592-691-9754 and 592-618-0647
- d) Email: alwynbwood@yahoo.com

#### **1.1.2 Staffing**

The Company is managed by the Managing Director/CEO Mr. Alwyn Bynoe supported by experienced personnel in production management and Finance. Below is a listing of the key management personnel.

**Table 1: Management team at Trans -Amazon Trading (TAT)**

<b>Name</b>	<b>Designation</b>
<b>Alwyn Bynoe</b>	Managing Director/CEO
<b>Abiola Bynoe Smith</b>	Finance / Admin Manager
<b>Hakeem &amp; Elijah Bynoe</b>	Chief Factory Engineer/ Manager
<b>Mohsin Khan</b>	Sales/Marketing Manager

The key management team has competent working experience in the related field of operations, especially in Guyana. In support of the operations, the company is going to employ additional experienced Guyanese personnel for all phases of operation and provide requisite training where required.

Trans -Amazon Trading (TAT) will employ Initially 30 workers. 5 Expat, 25 Local in its wood processing operations. Trans -Amazon Trading (TAT) plans to routinely engage other wood processing operators to share ideas about production, processing and





marketing, locally and overseas. No contractors are currently hired by Trans -Amazon Trading (TAT).

### **1.1.3 Business objectives**

The business objectives of Trans -Amazon Trading (TAT) includes:

#### **GENERAL OBJECTIVE**

Its general objective is to established a state-of-the-art wood processing facility in Guyana operating in consonance with the all the regulating agencies guidelines and regulations, consolidating the Company as a corporate socially, environmentally and economically responsible entity, one that demonstrates the highest standards of meeting agreed deliverables, product diversity and quality, accountability, efficiency and professionalism.

#### **SPECIFIC OBJECTIVES**

- a) Ensure legal access to adequate timber resources enabling it to establish downstream processing facilities and value-added manufacturing capabilities to produce high quality timber and timber products for the domestic, regional and international markets.
- b) As practicable possible, maintain a staff compliment of about 95% Guyanese, prioritizing senior management recruitment are locally sourced.
- c) Dedicated towards the continued investing in downstream value-added processing and manufacturing activities in Guyana for the domestic and export markets.
- d) Target local, regional and international markets whilst promoting Guyana forest produce.

### **1.1.4 Harvesting and Wood Processing Experience**

Trans -Amazon Trading (TAT) is a legally registered company in Guyana under the Company's Act CH: 89:01 with its director being Mr. Alwyn Bynoe who has extensive operational experiences in the field of marketing and sales and also developed distinguished collaborations with very reputable companies internationally and in Guyana. This company has officially confirmed their interest in providing all equipment, finances, technical expertise etc. regarding the establishing and operationalization of a wood processing and other associated facilities within the Yarrowkabra area under the name Trans -Amazon Trading (TAT).

Trans -Amazon Trading (TAT) is a registered harvesting and wood processing company in Guyana since 1995 and has committed to supply the raw materials for said facility from its state forest concessions. TAT has in excess of 30,000 acres or 12,140 hectares of forest under its stewardship, which potentially has the ability and capacity to sustainably supply the raw materials needed for the downstream facility.



Noteworthy, the positive economic growth, the transformational developmental projects, the housing boom etc., the Government and People of Guyana is presently experiencing, the forestry sector, especially, has and will always be, a key sectorial partner to satisfy the growing needs of that developmental trajectory presently being realized and are strategically placed to capitalize on said opportunities having forested area of Guyana, the exclusive market distribution channel and the technical and financial capacity to lend to further growth and development for the sector and the country at large.

Predominantly, log sales, both locally and export forms the basis of the operational line, however, intentional and committed decisions has been finalized in establishing a state-of-the-art downstream processing facility, which includes but not limited to, Sawmills, Furniture Factory , Kiln Drying facility, charcoal and briquette production and packaging, the use of NTFP for furniture production, prefab homes, wooden toys, ornaments, axes, hammer handle and other associate wooded products for multiple purposes so as to maximize on the enormous existing opportunities, whilst increasing profitability and ultimately be the leading competitor in the forestry sector.

#### 1.1.5 Assets

**Table 2-4. Equipment to be Utilized by TAT tentatively and can be subjected to changes**

#### 1. Primary Wood Processing (Log Conversion & Sawmilling)

This stage focuses on turning raw logs into sawn timber or basic wood materials.

Process	Equipment Used	Purpose
<b>Log handling</b>	Log loaders, forklifts, cranes	Move logs from storage to processing areas
<b>Debarking</b>	Drum debarker, ring debarker	Remove bark before sawing
<b>Sawing</b>	Band saw, circular saw, headrig	Cut logs into boards, planks, or slabs
<b>Edging &amp; Trimming</b>	Edger, trimmer saw	Straighten and size lumber pieces
<b>Chipping &amp; Shredding</b>	Chipper, hammer mill	Turn wood waste into chips for pulp or energy
<b>Drying</b>	Kiln dryer, air-drying racks	Reduce moisture content to prevent warping
<b>Planing</b>	Planer, jointer	Smooth wood surfaces for further use



## 2. Secondary Wood Processing (Value-Added Manufacturing)

This stage refines sawn timber into semi-finished or finished products.

Process	Equipment Used	Purpose
<b>Gluing &amp; assembly</b>	Glue spreader, clamps, press	Assemble furniture, panels, or doors
<b>Sanding &amp; finishing</b>	Sanding machine, spray booth	Smooth and apply coatings, paint, or varnish
<b>Boring &amp; drilling</b>	Drill press, boring machine	Create holes or joinery features

## 3. Tertiary Processing (Final Product & Finishing)

Used in making consumer-ready products such as furniture, flooring, and crafts.

Process	Equipment Used	Purpose
<b>Furniture production</b>	Table saw, biscuit joiner, mortiser	Join and assemble parts
<b>Surface finishing</b>	Spray gun, polishing buffer	Apply paint, stain, or protective finish
<b>Quality control &amp; packaging</b>	Moisture meter, measuring tools, wrapping machine	Ensure quality and prepare for shipment

## 4. Charcoal Production

<b>Retort kiln / Carbonization furnace (2)</b>	<b>Modern, closed system that recycles gases; higher efficiency and less smoke</b>	
<b>(a) Cooling and Discharge</b>	<b>Cooling chamber or storage bin</b>	Allows charcoal to cool safely before handling
<b>(b) Crushing and Screening</b>	<b>Charcoal crusher / grinder</b>	Breaks large charcoal chunks into smaller, uniform pieces
	<b>Vibrating screen</b>	Sorts charcoal by size for different uses
<b>© Briquetting (Value Addition)</b>	<b>Briquette press machine</b>	Compresses charcoal powder or dust into solid briquettes
	<b>Mixing machine</b>	Mixes charcoal powder with binders (e.g., starch, molasses) before pressing
<b>(d) Packaging</b>	<b>Weighing and sealing machine</b>	Packages charcoal for sale or export



## Supporting Equipment

- ❖ Dust collection system – removes sawdust and maintains air quality
- ❖ Conveyor systems – move materials between processing stages
- ❖ Generators or boilers – provide power and heat (especially for kiln drying)
- ❖ Air blower or fan – controls airflow in modern kilns
- ❖ Smoke condenser – captures and converts smoke into by-products (e.g., wood vinegar or tar)
- ❖ Control panel / sensors – used in automatic or retort systems for temperature and pressure regulation

## Future Complementary Machine

- ❖ Mop stick making machine - To produce the wooden (or sometimes metal) handles / sticks for mops, brooms, cleaning tools.
- ❖ Fire wood Splitting Machine - To split logs (rounds) of wood into fire-wood pieces, reducing manual labour and increasing throughput

### 1.1.6 Corporate Social Responsibility

In keeping with the Government of Guyana Local Content Act which aims to ensure that companies operating in the country hire a certain percentage of local workers and use a certain percentage of local goods and services. TAT as practicable as possible will maintain a staff complement of about 95% Guyanese, prioritizing senior management recruitment are locally sourced (see specific objective b).

The company is dedicated to contributing to the well-being and development of the communities within its area of influence and outside of those areas. As part of our social responsibility commitment, some of **the company's annual net profit will be allocated to charitable causes.**

These contributions will focus on supporting:

- **Vulnerable communities and villages** within our operational areas and outside as well;
- **Homes for the elderly** and initiatives that improve their quality of life;
- **Community development projects**, including **infrastructure improvements, bridge reconstruction, and other local development initiatives**; and
- **Victims of domestic abuse, violence and fire survivors through** recognized support organizations and programs.

***This policy underscores our belief that business success should go hand in hand with compassion, social equity, and sustainable community growth both local and international***





The company also intends to give priority employment to the community within its downstream facility just like with the forest operation, where for skilled and non-skilled workers and employed and provided the requisite training.

Staff from the Human Resources Department will go to communities and present the opportunities that are available and detail the conditions of applying and conditions of employment. Formal contracts will be issued to successful applicants who respond to job applications. Staff contracts will be determined to allow persons to visit their families at least once monthly.

Local staff will also get relevant training sessions and capacity building to improve their knowledge and effectiveness; incentives will also be offered for high performers. New employees will be trained on the job.

TAT is going to comply with the policy as practicable as possible, of limiting expatriate employment to 5 % maximum. At the professional, technical and vocational levels-the company commits to employ local workers, both experienced and new Graduates from the University of Guyana (UG), the Guyana School of Agriculture (GSA) and the Forestry Training Centre Inc. (FTCI).

The company in the course of its operation will co-ordinate with the FTCI for practical and theoretical training on relevant aspects to improve the operation and management techniques.

### **1.2.1. Geographic area and access**

This wood processing facility is strategically located on 5.6 acres of land situated at Tract TAT Yarrowkabra Linden Soesdyke Highway the area can be access from the Linden Soesdyke Highway which is the only main road leading to the project site and is located on the eastern side of the site, to the southern side there is an empty lot and no residential dwelling is in close proximity to project site.

### **1.2.2 Site features and land use**

The terrain is generally flat, and there is a high drainage density. There is no vegetation on the immediate site area since it has already been cleared and have existing infrastructures. There are no residential areas close by and secondary forest/shrubs surrounds the project site.



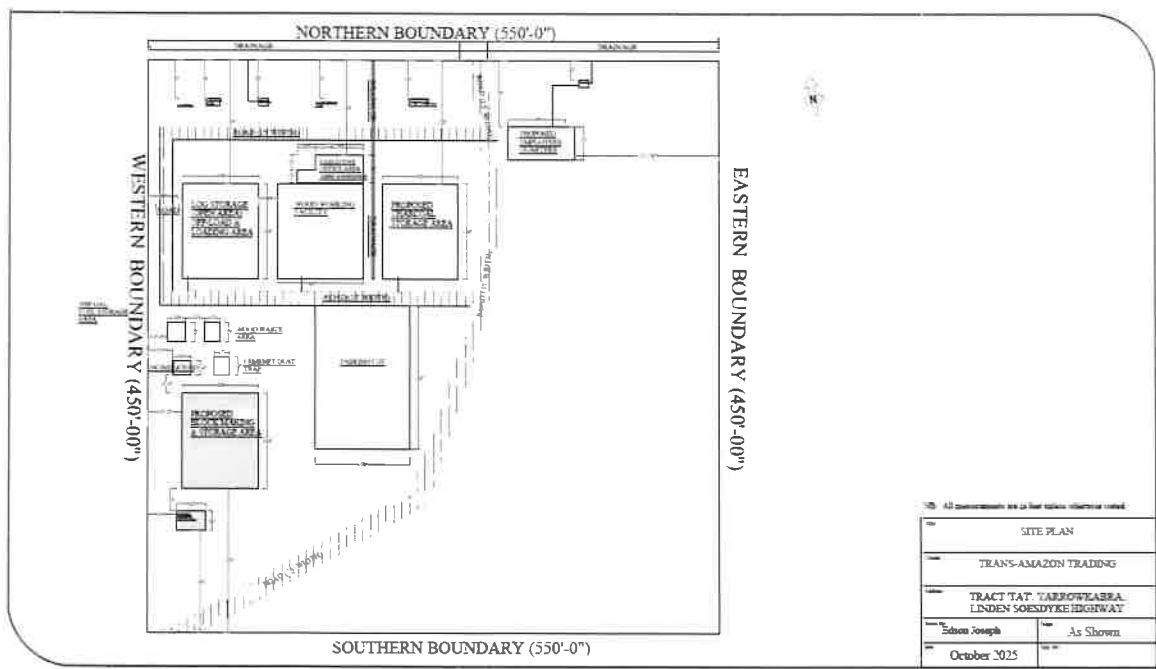
## 2.0 THE PROJECT

### 2.1 Overview

TAT intends to process multiple value-added products from 23,000m<sup>3</sup> logs source mainly from their forest concessions and other small / large scale concessions. To ensure standard operation procedures areas will be set up as follows:

- Raw Material Storage Yard (Log Pond):** A designated open yard for the storage of timber logs, with provisions for runoff control and dust suppression.
- Primary Processing Zone** – sawmill, cutting, or chipping.
- Secondary Processing Zone** – planing, shaping, drying, or value-added products.
- Waste Collection Area** – sawdust, offcuts, bark, etc.
- Product Storage & Dispatch** – packing, labeling, and shipping.
- Water Supply and Effluent Management:** Water is sourced from [Guyana Water Inc.] and used for processing and utilities. Wastewater generated from the process and domestic sources will be treated, reused or discharged in an approve manner.

**Diagram 1:** Representation of the Processing Factory to be Established at Yarrowkabra





## 2.2 Preparatory work

**Table 3: Matrix of work activity and progress**

WORK DESCRIPTION	TIME LINE
Seek requisite approval and licenses – GFC, EPA, NDC, CH&PA etc.	Presently engaging all agencies.
Land clearing and leveling, site preparation, demarcation,	Have commenced, will be completed by the 31 <sup>th</sup> January 2026,
Procure and assemble construction materials, equipment and workers to commence foundation	- Contractor already confirmed, - worker is being recruited, - Materials are being shuttled to the site.
Completion of foundation for factory	Generally Completed
Completion of Factory shed to house equipment	To be completed by end of January 2026.
Instillation and testing of equipment	To be completed by mid-March 2026
Operationalization of the facility	By the end of January 2026.

TAT has already carried out the following preparatory tasks:

- a) Land clearing and Development – removal of shrubs and unwanted materials. in Preparation of the land for building structures, log storage areas. There is the furniture factory and intended office and resident ( See Appendix 3 &4)
- b) Environmental Sensitivity:
  - Identified Water Bodies: Rivers, lakes, and groundwater sources that could be affected by sawmill operations (e.g., pollution, runoff, or water usage)
  - Air Quality Concerns: Locations where sawdust, emissions, or noise pollution could impact the surrounding environment.

## 2.3 Wood Processing Activities and Value added - Furniture manufacturing and Charcoal Production

While there is a number value added activities listed in the aforementioned sections of this summary, each activity will evolve over time. The main activity which will be central to the operation involves the following:



1. Log Reception and Preparation- Receiving and inspecting logs for size, quality, and defects, debarking, cross-cutting or trimming – cutting logs to standard length and log sorting and stacking by size, species, or quality

2. Primary Breakdown (Sawmilling)- Log sawing – into boards, planks, or cants using head saws or band saws, Edging – trimming rough edges to make boards uniform. Trimming – cutting to final length and Grading – checking for quality, defects, or size uniformity

3. Secondary Processing (Value-Added Processing)

Drying or seasoning (air or kiln) – removes moisture to prevent warping. Planing – smooths surfaces and makes uniform thickness. Shaping or moulding – forms decorative or functional profiles. Finger-jointing or laminating – joins smaller pieces into larger panels. Chemical or pressure treatment – adds resistance to pests and rot

4. Manufacturing or Fabrication

Cutting and assembly into furniture etc. Sanding and finishing – smooths surfaces for painting or varnishing. Gluing or nailing – to assemble final pieces. Quality control and packaging

5. Waste and By-Product Management

Activities include: Collection of sawdust, bark, and offcuts. Conversion of wood waste into charcoal, pellets, briquettes, or compost. Wastewater treatment (if log washing or wet processing is used) proper storage, treatment and disposal of unusable waste (See Annex 1 &2).

6. Storage, Packaging, and Dispatch

Stacking and labeling finished products. Protecting against moisture and pest loading for delivery to customers or distributors

7. Support Activities

Maintenance of equipment, energy and water management, worker safety and training and Record-keeping and quality assurance.

Thirty (30) persons will be employed to function at different stages of the operation with an end result of producing quality plywood to support local and international markets. ***The stages of operation are as follows:***





### 3.0 Environmental Aspects Potential Impacts and Mitigation Measures

Table 5

Environment Type	Project Activities	Project Phase	Potential Environmental Impact	Main Mitigation Measure	Impact Significance after Mitigation
<b>Physical Environment (Land/Soil)</b>	Clearing of lands for the construction of mechanical workshop, office, additional sheds, log pond	Construction	<ul style="list-style-type: none"> <li>Removal of specific site vegetation to facilitate the construction of project facilities has the potential to expose the soil to erosion,</li> <li>Scarification of soil surface and sub-soil, soil compaction.</li> </ul>	<ul style="list-style-type: none"> <li>Minimize removal of vegetation and encourages the re-vegetation of site impacted by clearance.</li> <li>Installation of drainage system to accommodate surge in storm water.</li> </ul>	Lo,Rev, St Av, M, In, Lp-
	Operation of Machineries	Construction /Operation	<ul style="list-style-type: none"> <li>Soil compaction from multiple passes of heavy vehicles over soil surface.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid the use of heavy vehicles during periods of heavy rainfall.</li> <li>Design specific routes for heavy vehicles and equipment to use.</li> </ul>	Lo,Rev, St Av, M, In, Lp-
	Waste Disposal (solid and liquid waste)	Operations	<ul style="list-style-type: none"> <li>May result in soil contamination from indiscriminate disposal of liquid, solid and hazardous waste</li> <li>Contamination of water in proximity to disposal, modifications in water temperature, turbidity, ph. Pollution with oil</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of a sound waste management system to include a waste disposal system at the location of operation and</li> <li>Avoid the dumping of waste in waterways</li> <li>Wood waste is minimized through optimization.</li> </ul>	Lo,Rev, St Av, M, In, Lp-



	Fuel and Oil transportation, handling, and storage	Operations	<ul style="list-style-type: none"> <li>• Pollution from fuel and oil because of a spill during transportation, handling, or storage.</li> <li>• Contamination of water in proximity to disposal, modifications in water temperature, turbidity, ph.</li> <li>• Pollution with oil</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that fuel, oils, and hazardous liquids are stored in a bunded area that has an impervious surface.</li> <li>• Due care will be applied to prevent spillage whilst handling fuel, oils, and potential hazardous liquids.</li> <li>• All fuel, oils and hazardous liquids will be stored away from streams and creeks.</li> </ul>	Lo,Rev, St Av, M, In, Lp
<b>Physical Environment (Air)</b>	Operation of processing machinery, vehicles	Operation	<ul style="list-style-type: none"> <li>• Noise, dust, PM and smoke generated from the operation of the various machinery and movement of vehicle</li> <li>• Changes in microclimate.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that all operative working in proximity to mills and saws be provided with personal protective gear: Earplugs, earmuffs, or noise-canceling headphones, dust mask</li> <li>• Implementation of dust control systems : baghouse / dust collectors, cyclone separators, wet scrubbers, Local Exhaust Ventilation (LEV) Systems</li> </ul>	Lo,Rev, St Av, M, In, Lp
	Operation of heavy-duty vehicles and equipment	Operation	<ul style="list-style-type: none"> <li>• Noise generated for the operation of the various pieces of equipment and machinery</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure that all operative working on and in proximity to are provided with personal protective gear</li> </ul>	Lo,Rev, St Av, M, In, Lp



			<ul style="list-style-type: none"> <li>Noise control system : Sound-Absorbing Panels (Acoustic Baffles), Vibration Isolation Systems, Quiet Equipment and Maintenance ,barriers and partitions , noise level maintained 90-105dB</li> </ul>	
Debarking, log soaking and drying, gluing	Operation	<ul style="list-style-type: none"> <li>Dust from bark and wood particles can become airborne without proper dust control.</li> <li>large dryers (often fueled by natural gas, wood waste, or oil) and emits particulate matter (PM), formaldehyde, and VOCs from drying resinous wood.</li> <li>Use of urea-formaldehyde or phenol-formaldehyde resins releases VOCs and formaldehyde gas.</li> </ul>	<ul style="list-style-type: none"> <li>All employees working in dusty environs will be provided with dust masks.</li> <li>Implementation of dust control systems, and Local Exhaust Ventilation (LEV) Systems</li> <li>Use of low-formaldehyde or bio-based resins</li> </ul>	Lo,Rev, St Un, M, In, Hp
Operation of heavy-duty vehicles and equipment.	Operation	<ul style="list-style-type: none"> <li>Dust and particulate matter resulting from the operations of chainsaws and movement of vehicles.</li> </ul>	<ul style="list-style-type: none"> <li>All employees working in dusty environs will be provided with dust masks.</li> </ul>	Lo,Rev, St Un, M, In, Hp
Disposal of wood Waste	Operation	<ul style="list-style-type: none"> <li>Improper disposal of domestic waste from workers and generated from wood processing activities</li> </ul>	<ul style="list-style-type: none"> <li>Green disposal and utilisation method implemented such as: mulching, landscaping, landfilling, composite, MDF and a daily reliable</li> </ul>	Lo,Rev, St Un, M, In, Hp



	All construction and Operation activities	Construction/Operation	<ul style="list-style-type: none"> <li>Risk of accidents from the used of the various equipment onsite</li> </ul>	<ul style="list-style-type: none"> <li>All employees will be educated about the Company's OSH practices.</li> <li>All working environments will be presented with First Aid kits.</li> <li>Appropriate signage will be posted around all working areas.</li> <li>Relevant and appropriate safe gear will be provided to all employees.</li> </ul>	disposable service Lo: R: St: Av: M: In: Lp
<b>Physical Environment (Water resources)</b>	Clearing of lands for the construction of base camps, roads, log markets and mechanical workshops	Construction/Operation	<ul style="list-style-type: none"> <li>Potential increase in sediment loads and turbid streams due to surface run off and erosion. Removal of vegetation</li> </ul>	<ul style="list-style-type: none"> <li>Collect and treat all process wastewater (from log washing, equipment cleaning, etc.) before discharge.</li> </ul>	Ex: Ir: Lt: Un: M: Sig: Hp
	Construction of bridges and the installation of culverts		<ul style="list-style-type: none"> <li>Potential reduction/obstruction of stream flow from the installation of bridges and culverts</li> </ul>	<ul style="list-style-type: none"> <li>stop clean rainwater from mixing with contaminated process water.</li> </ul>	Ex: Ir: Lt: Un: M: Sig: Hp
	Waste Disposal (solid and liquid waste)				
	Fuel and Oil transportation, handling, and storage		<ul style="list-style-type: none"> <li>Contamination of water in proximity to disposal sites, modifications in water temperature, turbidity, ph.</li> <li>Pollution with oil</li> </ul>	<ul style="list-style-type: none"> <li>Construct drainage systems that separate clean and contaminated runoff.</li> <li>Build sediment</li> </ul>	Ex: Ir: Lt: Un: M: Sig: Hp





**Socio-economic  
Environment  
(Occupational  
Health & Safety)**

- Contamination of water in proximity to storage sites, modifications in water temperature, turbidity, pH.
- Pollution with oil

traps or oil-water separators at discharge points.

Conflict results from shared workers resources	Construction /Operation	<ul style="list-style-type: none"> <li>• Restriction of access, alienation of rights, unplanned changes in lifestyle</li> </ul>	<ul style="list-style-type: none"> <li>• All employees will be educated on how to defuse conflicts.</li> </ul>	Lo: Rev: St: Av: M: In: Lp
Increase in workforce	Construction /Operation	<ul style="list-style-type: none"> <li>• Increase in the incidences of crime, increase in the use of illicit drugs and alcohol, socially unacceptable behaviour and inappropriate with members of close-by communities.</li> </ul>	<ul style="list-style-type: none"> <li>• Illicit drugs and alcohol will not be allowed at operation site</li> <li>• All employees will be trained at a minimal level on how to engage with members of close-by communities.</li> </ul>	Lo: Rev: St: Av: M: Sig: Hp
Hiring of Workforce	Construction /Operation	<ul style="list-style-type: none"> <li>• Skills transfer, Training opportunities job creation, increase incomes and cash flows</li> </ul>	<ul style="list-style-type: none"> <li>• Members of close-by communities will be sought after.</li> </ul>	Lo: Rev: St: Av: M: Sig: Hp
Regional Development	Construction /Operation	<ul style="list-style-type: none"> <li>• Improvement of infrastructure.</li> <li>• Crime; use of alcohol; health risks, disagreeable behaviour</li> </ul>	All staff will be trained in-house on OSH and security	

**Impact Significance (parameters):** Lo-localized, Ex-Extensive/ Rev-Reversible, Ir-reversible; / St-short term, Lt-long term/ Av-Avoidable, Un-Unavoidable. M-Mitigable, Im-Immitigable/ Sig-Significant, In- Insignificant/ Hp-High probability, Lp-Low probability



#### **4.0 Project Duration and Conclusion**

TAT looks forward to the challenges and the opportunity to make a tangible contribution to the development of the forestry sector. With an intended lifespan of over 10 years, TAT will be implementing measures to ensure that forest resources conservation and best environmental practices be given adequate attention

#### **5.0 List of Appendices**

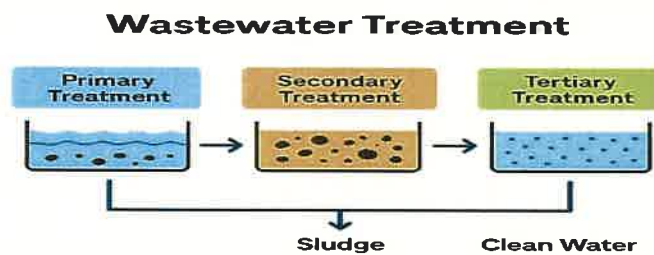
##### **Appendix 1 - Main Mitigation Measures for Water Resources**

**Table 5**

<b>Impact Area</b>	<b>Main Mitigation Measures</b>	<b>Expected Result</b>
<b>Wastewater</b>	Collect, treat, and reuse	Clean discharge
<b>Stormwater</b>	Drainage & sediment traps	Reduced runoff pollution
<b>Water use</b>	Reuse & efficiency	Less water consumption
<b>Chemicals</b>	Safe storage & spill control	No contamination
<b>Solid waste</b>	Containment & reuse	Clean drainage
<b>Erosion</b>	Grading & vegetation	Protected waterways

##### **Appendix 2**

##### **Diagram 2**





### **Appendix 3 – Envisioned Furniture Factory**



### **Appendix 4 – Office Building and Residential Suites**





## 6.0 Annex 1

### WASTE MANAGEMENT PLAN FOR THE WOOD PROCESSING AND VALUE ADDED

This Waste Management Plan (WMP) which is subjected to change outlines measures for the effective management of all waste streams generated by wood processing operations. The goal is to minimize waste generation, ensure safe handling, promote recycling and reuse, and prevent environmental contamination of soil, water, and air.

Type of Waste	Source/Process	Description
Wood Residues	Sawing, trimming, sanding	Sawdust, wood chips, bark, offcuts
Wastewater	Log washing, equipment cleaning	Contains suspended solids, resins, oils
Chemical Waste	Preservation, painting, gluing	Solvents, adhesives, preservatives
Solid Non-Wood Waste	Packaging, office waste	Plastic wrap, paper, cardboard
Hazardous Waste	Maintenance activities	Waste oil, filters, lubricants, batteries
Air Emissions	Burning, drying	Dust, smoke, volatile organic compounds

**Waste Minimization** – TAT will use optimized cutting patterns to reduce offcuts, maintain equipment to reduce rejects and use efficient kiln drying to prevent over-drying and product loss.

**Reuse and Recycling** Conversion of sawdust and wood chips into **briquettes, pellets, or compost**. Reuse offcuts for **firewood or secondary products (mop sticks, handles)** and recycle cardboard and plastic packaging materials.

**Treatment and Disposal- Wastewater:** Treat through **screening, sedimentation, and biological treatment** before discharge.

**Hazardous waste:** Store in labeled containers and dispose through **licensed hazardous waste handlers**.

**General waste:** Dispose at **approved landfill or municipal collection site**.

**Air emissions:** Install dust collectors and maintain filters on chimneys.

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**Waste Storage and Handling** will comprise of :

- ❖ Designate **separate collection bins** for different waste types.





- ❖ Provide **impermeable floors** in waste storage areas.
- ❖ Store hazardous materials in **bunded areas** with secondary containment.
- ❖ Maintain **records** of waste quantities and disposal methods.

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### **Roles and Responsibilities**

- ❖ **Supervisors** ensuring segregation and safe handling at workstations
- ❖ **Workers** Are expected to ensure Proper disposal and reporting of spills or leaks

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### **Monitoring and Reporting**

- ❖ Conducting monthly **inspections** of waste storage and treatment areas.
- ❖ Keep **waste tracking logs** (type, quantity, destination).
- ❖ Submit **annual waste management reports/ Annual Report** to EPA for approval and monitoring obligations

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### **Emergency and Spill Response**

- ❖ Keep **spill kits** at chemical and fuel storage areas.
- ❖ Train workers in **emergency response procedures**.
- ❖ Report any major spill to environmental authorities immediately.

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### **Training and Awareness**

- ❖ Conduct **regular training sessions** on waste segregation, reuse, and safety.
- ❖ Display **signage** for waste bins and disposal points.

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### **Review and Continuous Improvement**

- ❖ Set **targets** for waste reduction and resource recovery.
- ❖ Incorporate feedback from workers and regulatory agencies.



