

# **FOREST SECTOR INFORMATION REPORT**

## **Annual Review**

**2022**



**GUYANA FORESTRY COMMISSION**

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## Abbreviations

CARICOM	Caribbean Community
CFO	Community Forestry Organisation
CITES	Convention on International Trade of Endangered Species
COCA	Community Owned Conservation Area
ECLAC	Economic Commission for Latin America and the Caribbean
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FCMS	Forest Carbon Monitoring System
FCPF	Forest Carbon Partnership Facility
FDI	Foreign Direct Investment
FLEGT	(European Union) Forest Law Enforcement, Governance and Trade
FoB	Free on Board Price
FPA	Forest Products Association
FPDMC	Forest Products Development and Marketing Council Inc.
FTCI	Forestry Training Centre Inc.
GDP	Gross Domestic Product
GFC	Guyana Forestry Commission
IEMI	Brazilian Market Intelligence Institute
IMF	International Monetary Fund
ITTO	International Tropical Timber Organisation
LCDS	Low Carbon Development Strategy
LUS	Lesser Utilized Species
MNRE	Ministry of Natural Resources and the Environment
MRVS	Monitoring Reporting and Verification System for REDD+
NGO	Non-Governmental Organisation
NTWG	National Technical Working Group for EU FLEGT
OPEC	Organization of the Petroleum Exporting Countries
PES	Payment for Environmental Services
REDD+	Reducing Emissions from Deforestation and Forest Degradation Plus
RL	Reference Level
SDMS	Space Data Management System
SFEP	State Forest Exploratory Permit
SFM	Sustainable Forest Management
SFP	State Forest Permission
TSA	Timber Sales Agreement
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
VPA	Voluntary Partnership Agreement
WCL	Wood Cutting Lease
WEO	World Economic Outlook
WTO	World Trade Organisation

## Glossary of Terms

<b>GLOSSARY OF TERMS</b>	
Dressed Lumber	Wood sawn lengthways from Logs, further processed by use of planes, etc.
Firewood	Includes parts of trees made up into bundles or loads, or cut in a manner in which it is usual to cut wood for burning, and all refuse wood generally, but does not include straight logs or poles of any kind.
Fuelwood	Wood in the rough, from trunks and branches of trees, to be used as fuel for purposes such as cooking, heating and power production. Categories of Fuelwood are converted to Charcoal.
Non-timber Forest Products	All biological material, other than timber products, that may be extracted from natural ecosystems, either for commercial purposes, for use within the household or for social, cultural or religious purposes. Also known as Non-wood Forest Products.
Piles	Long straight pieces usually destined to be driven into the ground by impact, or pressed with mechanical pressure.
Poles	Straight pieces of 5m or more in length taken from tree trunks. They are used principally to support telephone, telegraph and electrical transmission lines and for scaffolding.
Posts	Round, hewn, squared or split wood, usually less than 3m in length, but possibly up to 5m, used for fencing, guard rails and the like.
Primary Lumber	This includes Chainsawn Lumber and Lumber emanating from Portable Mills converted in the forest and declared at first point of declaration as Primary Lumber.
Round Logs	A bole or a large branch after felling. Under the ITTO definition it is referred to as Industrial Roundwood.
Roundwood	Wood in its natural state as felled or otherwise harvested, with or without bark, round, split, roughly squared or in other forms. Roundwood includes spars, posts, poles (Wallaba) and piles (Greenheart, Kakaralli and Mora).
Sawnwood	Dressed lumber, undressed lumber, sleepers and pallets.
Shingles	Squares of usually Wallaba ( <i>Eperuafalcata</i> ) wood used to construct roofs and for panelling purposes.
Spars	Saplings 15-25cm in diameter.
Splitwood	Comprises Paling and Vat Staves and Shingles.
Timber	Includes a tree or any ligneous part of a tree whether standing, fallen or felled, and all wood, whether or not sawn, split, hewn or otherwise cut up or fashioned.
Undressed Lumber	Wood in the rough, sawn lengthways from Logs.
Wattles	Saplings less than 8cm in diameter.

## 1. Introduction

The Forest Sector Information report focuses on the performance of Guyana's Forestry Sector in 2022, with a comparison to 2021. The production and export of various forest products are assessed using Guyana Forestry Commission (GFC) data and compared to the previous year's performance. The Report also compares summary averages of domestic and export prices, as well as employment levels in various sectors.

Furthermore, the report includes a summary of State Forest lands allocation across concession classes (with areas classified according to GFC designated use/size categories) for 2022, as well as the Forest Sector's contribution (as traditionally measured in official national statistics) to Guyana's real GDP over the previous four (4) years, using the new rebased and re-benchmarked series to the year 2012.

A qualitative background summary covering the changes/features and outlook in the local and global economies is given before discussing the performance of the forest sector. With a focus on the Latin American and Caribbean region, this section covers developments in the global tropical timber market.

Data on forest production is compared in the core report between 2022 and 2021 by product and species categories (where applicable) and across the Regions (as designated for GFC purposes, corresponding to the three counties of Demerara, Berbice, and Essequibo) by their respective subdivisions known as Forest Stations.

Furthermore, export data is examined for a variety of product categories in terms of both volume and value. Along with international market prices, detailed analyses of Guyana forest product destinational markets are provided.

The FSIR concludes by including an Annex containing a number of tables that enable additional interpretation of the data provided in the report's production and export section.

## 2. Executive Summary

A total of 447,246 m<sup>3</sup> of forest products, including logs, Sawnwood, Roundwood, Splitwood, fuelwood, and plywood, were produced in 2022. In 2022, logs accounted for 352,248 m<sup>3</sup>, Roundwood for 24,149 m<sup>3</sup>, Sawnwood for 41,249 m<sup>3</sup>, Fuelwood for 16,070 m<sup>3</sup>, and Plywood for 13,515 m<sup>3</sup>. The year also saw the harvest of other forest products, such as Wattles, and Manicole Palm. Compared to the total production of 324,787m<sup>3</sup> for 2021, the total production for 2022 increased by 47.39%.

The production of logs increased by 15.72% in 2022 compared to 2021. Except for Purpleheart and Other Special Category logs, which showed declines of 28.19% and 3.75%, respectively, all other log categories showed growth. However, the increase in Greenheart log production results in a 5.18% increase in Special Category Logs.

In 2022, primary lumber production increased by 6.26% over the same period in 2021. This increase is the result of higher Class 1 and Class 2 lumber production as well as higher Special Category production, totalling 35,926 m<sup>3</sup> of production.

Additionally, compared to the same period in 2021, Class 1 and Class 2 lumber increased by 40% and 53%, respectively. Due to the high production of greenheart and Purpleheart lumber, there is also an increase in the production of special category lumber. On the other hand, compared to 2021, the production of lumber in the Other Special Category decreased by 3%.

Plywood production in 2022 increased to 13,515m<sup>3</sup>, a 9% increase over the 12,407m<sup>3</sup> produced in 2021.

Roundwood production increased by 8.81% in 2022 compared to 2021. This category grew because of increased output of Greenheart Piles. In 2021, the remaining products in this category Poles, Post, and Spars saw a decrease relative to their product kind. The total amount of Roundwood produced in 2022 was 24,149 m<sup>3</sup>. The most manufactured product in this category was piles, which were mostly composed of greenheart and a small amount of Kakaralli.

The total export value of forest products in 2022 was US\$33.78 million, an 8.89% increase from US\$31.02 million which was recorded for 2021.

Log exports saw a volume decrease of 20.36% and a value decrease of 19.10% from 2022 to 2021.

On the other hand, Sawnwood exports rose in value and volume by 23.02% and 18.57%,

respectively. Both dressed and undressed Sawnwood in the Sawnwood category see an increase in volume and value.

Roundwood exports saw a drop in volume but an increase in value of 2.74% and 13.68%, respectively, over 2021. Greenheart Piles exports in this category fell in volume but ride in value. Moreover, the volume and value of Poles exports recorded increased.

In 2022, the value and volume of plywood exports fell by 96.71% and 97.33%, respectively. The five main markets for Guyana's forest products in 2022 were North America, Asia Pacific, Latin America and the Caribbean, Europe, and Africa.



## 3. Economic Environment

### 3.1 The International Economy

#### 3.2 Economic Growth

According to the World Bank's Global Economic Outlook Report 2023, the world GDP growth rate for 2022 was 3.08%, down 2.94% from 2021. According to additional projections, global growth would drop to 3.0 percent in 2023. Economic activity is still negatively impacted by the increase in central bank policy rates intended to combat inflation. The issues of inflation and bleak growth prospects still plague the world economy. Although GDP growth in 2023 has exceeded expectations thus far, it is now slowing down due to tighter financial conditions, sluggish trade growth, and declining consumer and business confidence. The world economy is still struggling with issues like low growth potential and ongoing inflation. Although GDP growth in 2023 has exceeded expectations thus far, it is now slowing down as the effects of tighter financial regulations, slowing trade growth, and declining consumer and business confidence become more apparent. Financial conditions are tight, and real interest rates have generally increased in the past few months. Interest-sensitive industries, like the housing market, and bank-dependent economies, like those in Europe, have seen a slowdown in activity. In addition, rising geopolitical tensions are raising doubts about the near-term prospects once more. While core inflation is still relatively high, headline inflation has decreased in practically all economies, relieving pressure on household incomes.

Global GDP growth is anticipated to slow down from 2.9% for 2023 to 2.7% in 2024, then gradually increase to 3% in 2025 as real income growth picks up and policy interest rates begin to decline. In the near future, there will likely be a continued growing divergence between the economies, with growth in emerging-market economies typically holding up better than in advanced economies and relatively muted growth in Europe in comparison to North America and the major Asian economies. As cost pressures lessen, annual consumer price inflation in the G20 economies is expected to continue to gradually decline, from 6.2% in 2023 to 5.8% and 3.8% in 2024 and 2025, respectively. Inflation is expected to return to target by 2025.<sup>1</sup>

The short-term global outlook is still fraught with risk. Increased geopolitical tensions brought on by the conflict that followed Russia Ukraine war are a major short-term worry, especially if the conflict were to get worse. This might cause considerable disruptions to trade routes and the energy markets, as well as more risk repricing in the financial markets, which would slow growth and raise inflation. A major cause for concern given the significance of trade for productivity and

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<sup>1</sup> OECD Economic Outlook, Volume 2023 Issue 2

development is the uncertain outlook for global trade, which is exacerbated by headwinds from growing trade restrictions, inward-looking policies, and the restructuring of global value chains. Central banks may be forced to hold policy rates higher for longer than anticipated due to ongoing cost pressures, resurgent increases in the prices of food and energy, or indications of an upward drift in inflation expectations. This could lead to further stress in the financial markets. On the other hand, the effects of higher interest rates and stricter credit requirements might be more pronounced than expected, which would cause a more severe slowdown in spending, an increase in unemployment, and a rise in bankruptcies.

Unexpectedly tighter global financial conditions would also increase pressure on lower-income nations to service their debt, as well as increase financial vulnerabilities, particularly in emerging-market and developing economies. Positively, the world economy and financial markets have shown themselves to be comparatively resilient to monetary policy tightening thus far, and inflation may reach its target level without a significant slowdown in growth or a sharp increase in unemployment. If this trend holds true, 2024 growth will likely be stronger than anticipated while inflation declines. If households were willing to spend the excess savings they had amassed during the pandemic, growth would also be stronger, but inflation persistence might also be prolonged.

In light of this, ensuring that inflation is permanently decreased, addressing the growing fiscal strain, and enhancing the medium-term prospects for inclusive and sustainable growth are the top policy priorities.<sup>2</sup>

1. Until there are convincing indications that the underlying inflationary pressures are permanently reduced, inflation expectations need to continue to moderate, and supply and demand in the labour and product markets need to be balanced, monetary policy must remain tight. In most developed economies, policy rates seem to have peaked or are almost there, but if underlying inflationary pressures continue, more rate increases might be required.

2. High debt loads and increased spending on defence, the climate transition, and aging populations put governments under increasing fiscal strain. As low-yielding debt matures and is replaced by new issuance, debt service costs are also rising. Future debt loads are likely to increase dramatically if nothing is done. A critical step is to ensure that fiscal support measures, including remaining energy support schemes, are either eliminated or better targeted toward those in greatest need. Credible medium-term fiscal frameworks, with clear spending and tax plans that address

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<sup>2</sup> OECD Economic Outlook, Volume 2023 Issue 2

future fiscal pressures while preserving investment for long-term growth and the climate transition, are also required to ensure sustainability and provide flexibility in responding to future shocks.

3. To revive global trade, enhanced multilateral cooperation is required. In today's interconnected world, open and well-functioning international markets underpinned by a rules-based global trading system are critical sources of long-term prosperity for both advanced and emerging market economies. A key policy challenge is to strike a balance between the need for increased resilience in global value chains and the benefits of increased efficiency, as well as the potential income gains from lower trade barriers, particularly in the service sector.

4. Given the long-term decline in economic growth and the pressing challenges posed by ageing populations, climate change, and digitalization, ambitious structural reforms are required to reenergize growth and improve its quality. As emphasized in the 2023 edition of the OECD Going for Growth report, renewed efforts to reduce constraints in product and labour markets, strengthen investment and labour force participation, and improve skills development would improve productivity prospects and maximize the benefits of the digital transformation. Faster progress toward decarbonisation is also required. Policy action priorities include increasing green and digital infrastructure investment and support for innovation, strengthening standards to enable emission reductions, and expanding the scope and level of carbon pricing.

## 4. Flows to Developing Countries

Global foreign direct investment (FDI) fell by 12% in 2022, to \$1.3 trillion. The decline was primarily due to lower levels of financial flows and transactions in developed countries. Real investment trends were more positive, with an increase in new project announcements across most regions and industries. FDI in developing countries increased marginally, but the growth was concentrated in a few large emerging economies. Smaller developing countries experienced stagnant inflows, while FDI to LDCs declined.<sup>3</sup>

Following a sharp drop in 2020 and a strong rebound in 2021, global foreign direct investment (FDI) fell by 12% in 2022, to \$1.3 trillion. The slowdown was triggered by the global polycrisis, which included the war in Ukraine, high food and energy prices, and debt pressures. Tighter financing conditions, rising interest rates, and capital market uncertainty have had a significant impact on international project finance and cross-border mergers and acquisitions (M&As). In 2022, the value of international project finance deals fell by 25%, while cross-border M&A sales were down 4%.

It is anticipated that in 2023, the international business and cross-border investment environment will continue to be difficult. The economic challenges influencing investment trends in 2022 have not vanished, despite a slight decrease. The state of geopolitics is still tense. Investor uncertainty has increased due to recent turmoil in the financial sector. UNCTAD anticipates that in 2023, the downward pressure on global FDI will persist. Weak trends in international project finance and M&As are indicated by early indicators for the first quarter of 2023.

There was an uneven distribution of the growth in FDI in developing nations. It was mostly centered in a small number of sizable emerging economies. Many smaller developing nations saw a stagnation in inflows.

- FDI in Africa returned to the \$45 billion level in 2019 following abnormally high levels in 2021; however, announcements of new greenfield projects and foreign project financing increased.
- FDI into developing Asia remained constant at \$662 billion, accounting for over half of all FDI worldwide.
- The amount of money flowing to the Americas rose by 51% to \$208 billion, the highest amount ever noted.

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<sup>3</sup> IMF” World Investment Report” 2023

- There was a decrease in FDI flows to small, vulnerable, and structurally weak economies. FDI in the 46 least developed countries (LDCs) decreased to \$22 billion, a 16% decline. less than 2% of FDI worldwide.

Small island developing states (SIDS) and landlocked developing countries (LLDCs) experienced modest increases in FDI. The United States of America continued to be the country that welcomed foreign project finance deals, greenfield projects, and FDI the most. India, the United Arab Emirates, the United Kingdom of Great Britain and Northern Ireland followed.

## 5. International Forestry Environment

### 5.1. International Tropical Timber Market Summary

Global trade prospects, particularly for tropical timber, are being affected by political unrest and economic uncertainty, according to ITTO. Rather than emphasizing the process of "building back better" following the COVID-19 pandemic and intensifying climate action in response to concerning global temperature records, numerous nations are grappling with challenges such as ongoing inflation, elevated interest rates, and the aftermath of the conflict in Ukraine and the Middle East. However, there are ways to make people and communities more resilient to shocks natural or man-made. Part of the answer for the millions of people who depend on tropical forests for jobs and income is to make global supply chains more transparent and sustainable.

According to ITTO's 2022–2026 Strategic Action Plan, establishing sustainable and lawful supply chains (LSSCs) is essential to enhancing governance, increasing funding for the preservation of tropical forests, and expanding the use of tropical timber. ITTO is helping tropical timber-producing nations, operators, and communities that depend on forests to obtain the laws, resources, and funding required to carry out this goal through a special LSSC program.

According to reports from Asia, Japan's government began acquiring wood whose legality had been confirmed in 2006. A bill that became the Act on Promotion of Distribution and Use of Legally Harvested Wood and Wood Products was passed by parliament ten years after talks on encouraging the broader use of legal wood had taken place. The law, which is more widely known as the Clean Wood Act, was passed in May of 2017. The law has now been modified by the Japanese government to improve its efficacy.

Illegal logging and the sale of wood that has been illegally harvested pose a threat to Japan's legal wood product trade and the many purposes that forests serve, one of which is to mitigate global warming. In recent decades, the need to combat illegal logging has gained significant international momentum, leading to the adoption of relevant legislation in several nations, and it continues to be a top priority on the global agenda.

Reports out of Indonesia contends that there is a lack of energy supplies in Indonesia, particularly electricity. Numerous areas have thus been unable to see the economic growth they had hoped for. This is especially true for isolated small islands, remote areas, and rural areas. Furthermore, a large portion of the nation's power plants burn fossil fuels, particularly coal, which is not environmentally friendly. As a result, subsidies are required to maintain the cost of electricity at a level that is affordable for regular consumers. The Indonesian government wants to increase the

share of renewable energy in the country's power generation from 7% to 15% by 2025 in order to help meet its energy needs. It is anticipated that the forestry industry will assist this endeavor by effectively utilizing the forest resources at its disposal.

According to a Mongabay report, an Ecuadorian program is using cacao agroforestry to help preserve and restore a portion of the endangered Jama-Coaque Reserve. A US-Ecuadorian nonprofit organization oversees the program, which assists farmers in Ecuador's Pacific Forest in switching to cacao grown in shade under native tree species and opens up premium markets for their produce. The organization also wants to establish a 43-kilometer wildlife corridor that connects Cerro Pata de Pájaro and the Jama-Coaque Reserve through land purchases, agroforestry, and reforestation. These are two of the biggest remaining portions of the forest, which is estimated to be only 51 000 ha, or 2.2%, intact.

According to the Associated Press, Brazil's government has started evicting thousands of non-natives from two native Amazonian territories in an effort to slow down deforestation. According to the report, the goal of the authorities is to prevent further damage to the forest and return the Apyterewa and Trincheira Bacaja lands in Para state to their original inhabitants. There were roughly 1600 families residing there illegally. For four years in a row, the Apyterewa territory in Brazil had the highest rate of deforestation of any Indigenous land.

According to reports from North America, the US government has developed a new strategy to prevent carbon emissions and forest fires that threaten communities. According to Science Daily, researchers have identified priority areas for wildfire mitigation efforts by combining maps of vulnerable human communities with spatial data on the risk of forest fires. The method, which was used in the western United States of America, can help plan interventions that lessen the loss of carbon stores in forests, thereby mitigating the effects of climate change and safeguarding human health. The method could be used by land management organizations to determine the best locations for preventive actions like prescribed fires, cultural burning, and forest thinning in order to safeguard resources like water sources, parks, and wildlife habitat.

## 6. Guyana Forest Sector

In general, the forest sector in Guyana saw a positive transition in 2022. The Guyana government's budgetary injections have created new avenues for opportunity that could result in substantial growth and development for the industry and its stakeholders. The non-oil sector contributed 8.3% of Guyana's 36.4% GDP growth in 2022. In particular, the 13.4% growth in the forestry sector was ascribed to the general uptick in the production of forest products in all its forms. A strong rise in infrastructure development combined with favorable local prices has been the primary driver of this growth.

### **State Land Allocation Increase in 2022**

Additionally, 2022 saw the greatest number of active large concessions in the previous five years, with figures from 2021 showing increases of 33% in the Annual Allowable Cut (m<sup>3</sup>) and 35% in the Area (ha). Simultaneously, about 2.3 million hectares of state forest were granted to small State Forest Authorizations; these represent 551 small-scale SFA concessions, of which 129 are CFMAs. Furthermore, an additional 12,429.70 hectares are covered by one (1) mining lease and thirteen (13) agricultural leases.

### **National Forest Inventory**

The Work Schedule for Phase II Year 3 of the National Forest Inventory (NFI) was initiated in April 2022. This activity commenced following the conclusion of the previous year's activities and was dependent on the release of financial tranches from the Ministries of Natural Resources and the Ministry of Finance. In 2021, the target region was shifted from Region 9 to Region 7 as a result of significant constraints like COVID-19 and Hinterland flooding that had an adverse effect on forest areas.

By December 31, 2022, about 68% of the NFI Data Collection above the 4th parallel has been successfully completed. Phase II will last until 2023, during which fieldwork is planned in Region 8, Region 9, and Region 1.

### **REDD Secretariat**

### **Guyana's Monitoring Reporting and Verification System (MRVS)**



The main tool for comparing Guyana's performance to the agreed-upon indicators in the Guyana-Norway Agreement is the Monitoring Reporting and Verification System (MRVS) for REDD+. Guyana received the first TREES credits ever issued by the Architecture for REDD+ Transactions (ART) on December 1, 2022. This is historic because it's the first time a nation has received carbon credits created especially for the voluntary and compliance carbon markets in exchange for effectively halting the loss and degradation of forests.

Guyana will receive 33.47 million TREES credits from ART for the five-year period between 2016 and 2020 after ART Board of Directors approved the project and it concluded an independent validation and verification process. Buyers on the global carbon market can purchase these serialized credits, which are listed on ART's public registry. Airlines can use these credits to fulfill their voluntary corporate climate commitments and to comply with the International Civil Aviation Organization's CORSIA global emission reduction program.

On December 1, 2022, the Government of Guyana entered into an agreement with Hess Corporation for the sale of these credits for a minimum of \$750 million between 2022 and 2032, following the announcement by ART on the issuance of 33.47 million TREES credits to Guyana for the five-year period from 2016 to 2020.

#### Advancing a Market-Based Mechanism for Forest Carbon Services in Guyana (MRVS Phase 3)

Guyana's long-term vision is for the payments for forest services to be funded through a market-based or other mechanism agreed upon within the UNFCCC. Until then, Guyana may enter into voluntary agreements with bilateral partners or voluntary markets that are compatible with REDD+. The precursor to such a mechanism was an agreement with the Government of Norway; the two countries signed an MOU in 2009 where Norway committed to paying Guyana up to US\$250 million in payments-for-performance, and the two countries agreed to work together on issues 'related to the fights against climate change, the protection of biodiversity and the enhancement of sustainable development'.

Guyana's Monitoring Reporting and Verification System (MRVS) for REDD+ was developed as the primary mechanism to measure Guyana's performance against the agreed indicators as set out in the Guyana-Norway Agreement. It is a combined GIS-based and field-based monitoring system developed to track national-level forest change of deforestation and forest degradation. The goal is for the MRVS to provide the basis for measuring verifiable changes in Guyana's forest cover

and resultant carbon emissions from Guyana's forests, which will underpin results-based REDD+ compensation in the long term, based on international guidance and best practice.

Following 10 years of developing and operationalizing an MRVS mechanism for REDD+, Guyana is ready to access voluntary (or compliance) markets for forest carbon services. This integration with a market mechanism will build on the successes and lessons learned from the MRVS and REDD+ implementation over the past decade through the bilateral cooperation agreement between Guyana and Norway on climate and forests. The next steps in this development will see Phase 3 targeted at market integration and building a framework towards Phase 4 for a fully implemented market mechanism.

This project aims to contribute to the realization of Guyana's domestic commitments within the forest sector, to the global efforts to combat climate change as is detailed in the Nationally Determined Contributions to the UNFCCC including preparing for entry into market-based actions.

This project will support

- MRVS and Capability for Forest Carbon Market Integration
- REDD+ and Forestry Governance
- Forest Sector Development in REDD+ (forestry certification and accreditation, added value development, Intact Forest Landscapes, and Sustainable Forest Management).

This project will see at the end of 3 years: 1) the national MRVS continue and become market ready for a forest carbon market; 2) Guyana successfully developing the Programme for Endorsement of Forest Certification (PEFC); 3) GFC advancing efforts to becoming Green Climate Fund (GCF) accredited; and 4) Guyana fulfilling relevant reporting requirements on national forest programs, REDD+ safeguards reporting, SDG goals, and reference levels. Further at the programmatic level, this project will advance efforts on Guyana's NDC commitments including in EU FLEGT and actions to reduce emissions in the Forests Sector.

The project will deliver the following Outcomes:

1. Outcome 1 – Guyana's MRVS is expanded and capable of accessing a forest carbon-based market mechanism.
2. Outcome 2 – Implementation and Reporting Capability on Guyana's Forest Sector International Commitments is improved.

3. Outcome 3 – Core REDD+ forestry governance programmes are supported.
4. Outcome 4 – REDD+ Enabling Activities in the forest sector are strengthened.
5. Outcome 5 – Forest Sector Accreditation Schemes to support REDD+ Programmes are developed.
6. Outcome 6 – Forest Sector Implementation of Emissions Reductions are strengthened.

Technical implementation of the Project commenced in January 2022. The activities implemented are detailed in the table below:

Outcome 1 Expand Guyana's MRVS and capabilities to access a forest carbon-based market mechanism.	Output 1.1 Conduct Reporting on Forest Carbon Emissions and Removals for Year 2022
	Output 1.2 Implement independent verification of MRVS for Years (2021, 2022, 2023)
	Output 1.3 Support Development and Implementation of a Forest Carbon Registry
	Output 1.4 Execute Capacity Building and Institutional Strengthening to Report on Payment for a Forest Carbon Services Mechanism
Outcome 2- Strengthen Implementation and Reporting Capability on Guyana's Forest Sector International Commitments	Output 2.1 Support development of a Safeguards Information System
	Output 2.2 Support Annual Reporting on Status of Forest Sector Safeguards under REDD+
	Output 2.3 Support Annual Monitoring and Reporting on forest sector NDC areas
	Output 2.4 Contribute to UNFCCC reporting requirements (including BUR (REDD Technical Annex) and GHG Inventory) for REDD+ on FREL and related areas.
Outcome 3- Support core REDD+ forestry governance programmes	Output 3.1 Develop capability to implement Guyana's forest sector NDC programme areas on SFM
	Output 3.2 Support EU FLEGT Implementation of the Joint Implementation Framework (JIF)
	Output 3.3 Develop the EU FLEGT Licensing Capabilities and Institutional Structure
	Output 3.4 Support monitoring of export of forest produce in keeping with GFC EU FLEGT requirements.
	Output 4.1 Update REDD+ Implementation Plan

Outcome 4- Strengthening REDD+ Enabling Activities in the forest sector	Output 4.2 Support implementation of the Benefits Sharing Mechanism for REDD+
	Output 4.3 Engage with Stakeholders at National and International Levels and build alliances
	Output 4.4 Produce Annual Report on forest sector commitments under SDG 13 and 15
Outcome 5- Develop Forest Sector Accreditation Schemes to support REDD+ Programmes	Output 5.1 Develop processes, systems and documentation for GFC's application to PEFC
	Output 5.2 Conduct scoping for the Guyana Forestry Commission's accreditation to the Green Climate Fund (GCF)
	Output 5.3 Develop local capacities to manage and audit PEFC certified areas
	Output 5.4 Implement Guyana's national process for forest certification (PEFC)
Outcome 6- Strengthen Forest Sector Implementation of Emissions Reductions	Output 6.1 Support to Reduced Impact Logging and forest sector capacity building.
	Output 6.2 Provide capacity support to small-scale forest operators to expand RIL techniques
	Output 6.3 Enhance Forest Carbon Storage in Long Term Wood Products through the strengthening of the value chain.

Some of the key activities completed to date include:

a) Project safeguards

With the inclusion of forest governance measures (EUFLEGT, PEFC, RIL), the GFC was required to prepare the following four Safeguards Plans to guide the implementation of project activities:

i. Stakeholder Engagement Plan- outlines the measures that the Project Team will implement to ensure the effective participation of key project stakeholders, including men and women and those identified as disadvantaged or vulnerable stakeholders. The level of detail in the SEP will vary according to the scope of the project, number of stakeholders involved, and potential risks and impacts present.

ii. Gender Mainstreaming Plan- An overarching element to the activities to mainstream gender in the MRVS project will be the GFC's communications campaign. To raise awareness of the importance of forests and the development and operation of the MRVS, key focus will also be

placed on the target audience. The campaign will provide the space and communication tools for men and women to understand and give feedback on aspects of the project by communicating it in an easily understandable and culturally appropriate way.

iii. **Accountability and Grievance Mechanism-** the project must have an Accountability and Grievance Mechanism in place so that project-affected communities, individuals, and other stakeholders may raise a grievance at any time to the Project Team, CI, or the donor on non-compliance with the CI-ESMF

iv. **Environmental and Social Management Plan-** is a tool for managing and mitigating the environmental and social risks and impacts associated with implementing a project. It informs and guides activity design and adaptive management decisions, suggesting possible modifications in the project design to avoid risks and impacts. It describes how negative environmental and social impacts will be managed and mitigated during the preparation, design, implementation, and monitoring of a project.

These plans were drafted by the GFC with guidance from CI, and will guide the implementation of the Project and reporting. A number of working sessions were held between the GFC and CI to finalise these plans.

Following the finalisation of the Plans, staff of the GFC was targeted for training, both virtually and in-person, to build their capacities in overseeing the implementation of the various aspects of the Project.

### **Guyana- EU FLEGT VPA**

In November 2018, following six years of negotiations, the EU and Guyana signed the Guyana-EU FLEGT VPA. Following the principle agreement on the Agreement, a legal review was conducted in order to prepare it for ratification and eventual legal binding between Guyana and the EU. The VPA was signed at the COP 15-on Biodiversity in Montreal, Canada in December 2022.

Guyana has formed the National Implementation Working Group (NIWG) to oversee and keep an eye on the tasks assigned to be completed during the pre-implementation phase, which is currently underway.

### **Community Forest**

The year 2022 was a highly productive year for the GFC. One hundred percent (100%) of the

planned target was achieved, despite the challenges posed. The GFC was able to strengthen CFOs and Amerindian villages by implementing initiatives geared at fostering sustainable forest management practices. Towards this end, emphasis was placed on compliance with the rule of law, community mobilization, community participation, and promotion of alternative livelihood options. Projects were made possible through close collaboration and support from sister agencies, NGOs and cooperation of the communities.

A notable achievement for the GFC, was the fostering of new relationships with other interest bodies which support the vision of the GFC in advancing the forest sector. Some outcomes of these engagements included sector-based research, community outreaches, and development of stakeholder engagement guidelines.

During 2023, the Unit will continue its work in promoting community resilience through capacity building programmes, agro forestry, reforestation, value added timber production (milling and furniture manufacturing, and non-timber forest products. These activities would be developed and implemented through detailed planning using a community participatory and visioning processes.

#### General Information on Community Forestry Organizations

##### a. Profiling of CFOs

Seventy-two (72) Community Forestry Organizations are registered with GFC; however, 92% of them had active logging operations during 2022 representing an increase by 3% from 2021. Altogether CFOs have 126 Community Forest Management Agreements occupying 1,353,923 acres (548,147 hectares) of State Forests. The overall membership among these groups is 1226; providing employment for approximately 6130 persons.

Gender equality is of paramount importance among CFOs; women are given similar opportunities to manage, participate in decision-making, and have access to the forest resources similar to that of men. This is evident in the number of women overseeing the management of Community Forestry operations (6) and are employed (78) through the CFOs. Approximately fifty (50) women are directly involved in logging and charcoal production while another ten (10) function as clerks.

Figure 5: Showing the Percentage of CFO Membership by Region

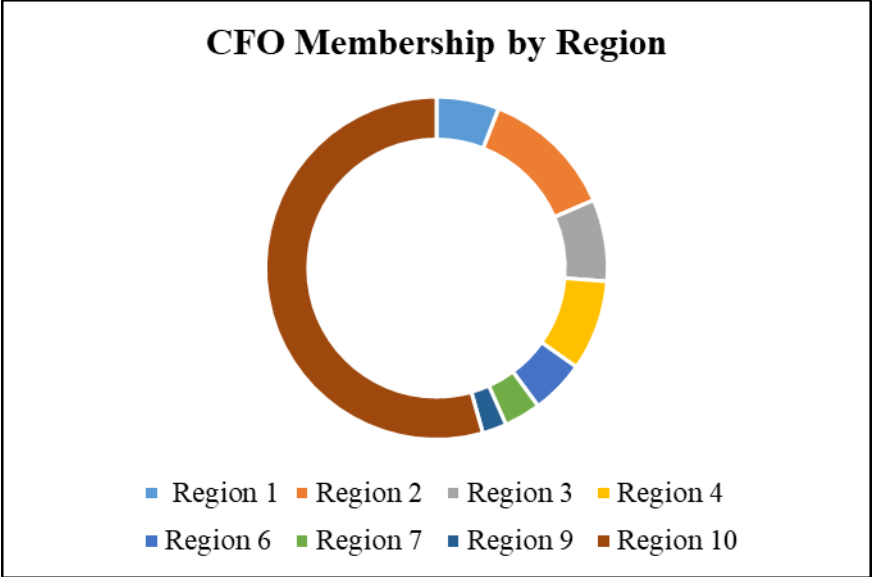
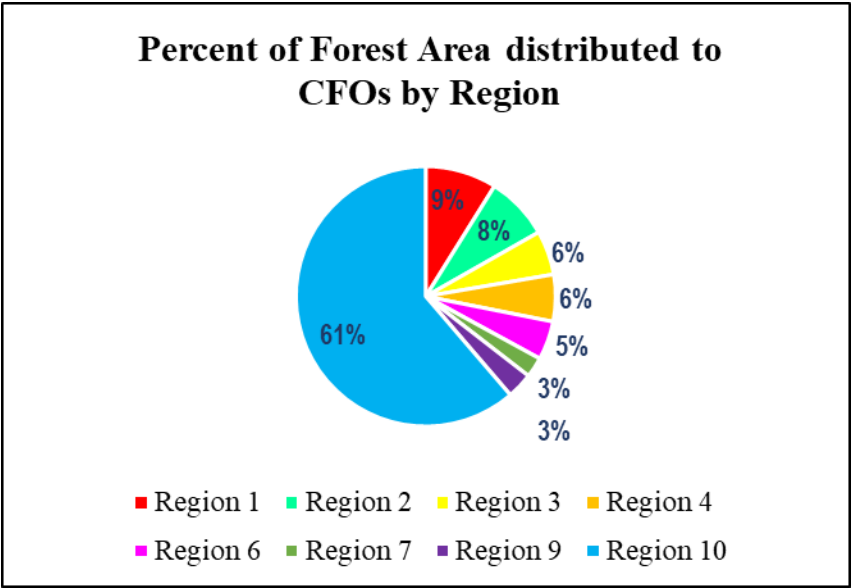


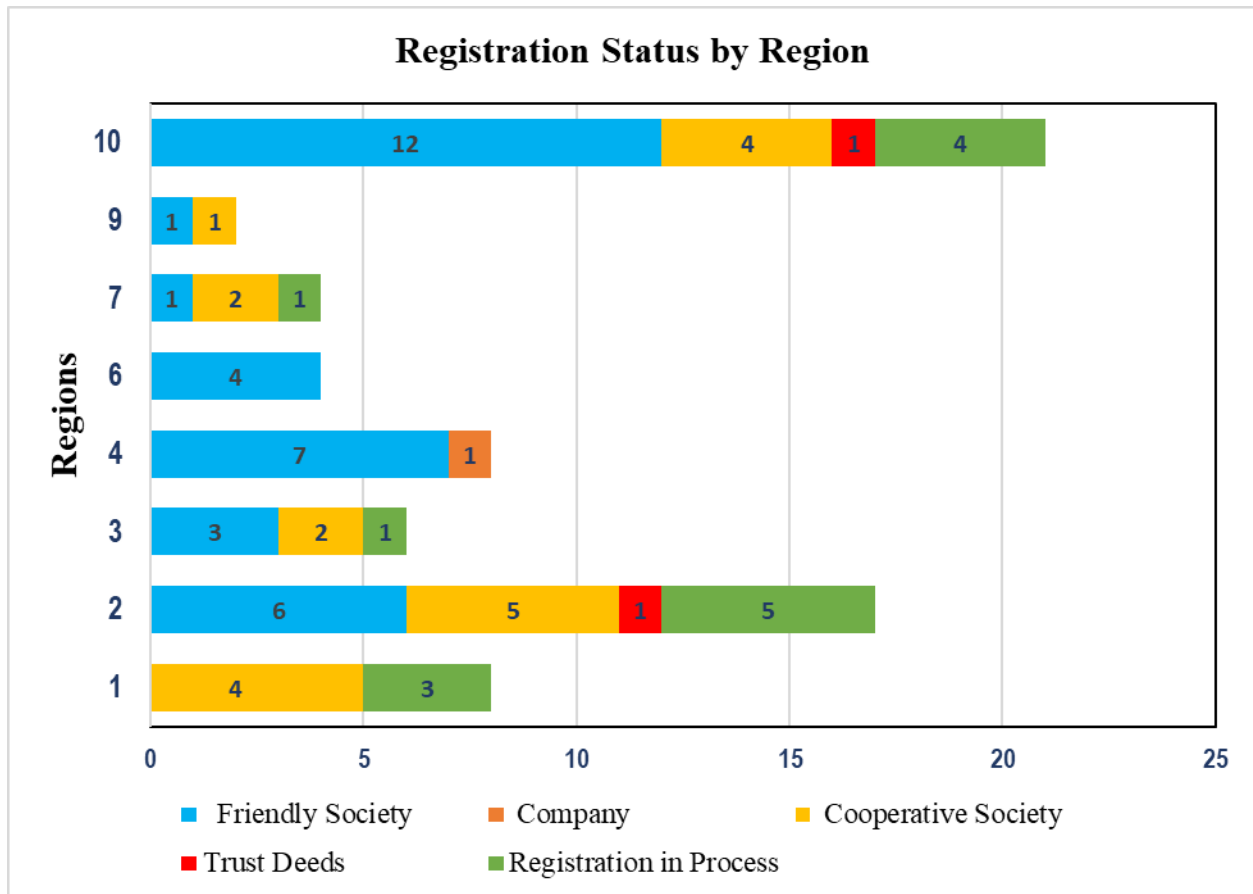
Figure 6: Showing Percentage of Forest Area Allocated to CFOs by Region



b. Registration of CFOs

Twenty- percent (26%) of the CFOs are registered Co-operative Societies, 51.5% are registered Friendly Societies, 4.5% are Companies or Trust Deed, and 17% are in the process of registering as Co-ops. Six (6) of the groups that are registered Friendly Societies have also submitted applications to be registered as Co-ops; however, this is not captured in 17% mentioned previously. As a result of changes in the management of the Cooperative/Friendly Societies Department, the registering of new groups has slowed significantly. To this effect, no group was registered in 2022.

Figure 7: Showing CFOs' Form/Status of Registration by Region



### Capacity Building at the Community Level

At the beginning of the year, CFOs and indigenous communities involved in logging are encouraged to submit their interest in training for the current year. This information is used to determine what training the Community Development Unit and FTCI would offer to CFOs and Amerindian Villages. Availability of funding is critical for the implementation of any training activity, for this reason, the majority of funding is sourced externally. Only critical cases such as new groups being formed or Amerindian villages first time engaging in commercial logging are offered training funded by GFC.

#### c. Training with GFC

Training offered to forest-dependent communities during 2022 was made possible through collaboration with World Resource Institute, European Forest Institute Technical Assistance Project (EFITAP), Forestry Training Centre Inc. (FTCI), and the Forest Monitoring Division.



The categories of training engaged 1,004 participants from 93 Amerindian communities, 67 Community Forestry Organizations, and other Forest Sector Operators at 43 sessions across the country. The objectives of those sessions included: improving compliance with Income Tax, Social Security and Labour Regulations, record keeping, community participation, improving business management, market access and opportunities; improving sustainable forest management practices. One hundred percent (100%) of active Community Forestry Organizations attended these sessions in addition to 100% of Amerindian villages that have active commercial logging operations.

## 7. Contribution to GDP

In 2010, the Bureau of Statistics introduced a new series of Gross Domestic Product rebased and re-benchmarked to year 2006, replacing the series based in 1988. The table below shows the trend of GDP over the past 9 years. This statistic is taken as a measure of primary production of Logs, Sawnwood, Roundwood and Splitwood. As such, total forest sector contribution that included added value forest products, (including plywood, furniture, and building components, etc.) tally to a higher percentage contribution. This additional aspect of forest sector contribution is recorded under the Manufacturing sector.

Year	GDP	Agriculture Sector	Forestry Sub Sector	GDP	Agriculture Sector
2011	788,711	203,938	18,835	2.33%	9.00%
2012	830,326	211,234	17,554	2.11%	8.31%
2013	860,661	219,803	18,517	2.15%	8.42%
2014	875,176	236,671	21,473	2.45%	9.70%
2015	881,192	244,364	19,060	2.16%	7.80%
2016	914,743	217,221	14,040	1.53%	6.46%
2017	948,904	244,734	15,224	1.60%	6.22%
2018	991,044	260,963	15,430	1.56%	5.91%
2019	1,044,093	259,670	14,821	1.42%	5.71%
2020	1,498,061	270,445	13,614	0.90%	5.03%
2021	1,797,786	245,915	15,149	0.84%	6.16%
2022	2,918,870	275,104	17,179	0.58%	6.24%

## 8. Forestry Sector Structure

### 8.1. Land Allocation Breakdown

Small Concessions commonly referred to as State Forest Permissions (SFPs) operations were extended from 2 years to 3 years for an area no more than 8,097 ha; Large Concessions (usually referred to as Timber Sales Agreements (TSAs) are granted for a period up to 30 years for an area in excess of 8,097 ha. All leases are renewable subject to compliance with the terms of the agreement. State Forest Exploratory Permits (SFEPs) are granted for 3 years and is the precursor to a TSA and WCL

CLASSIFICATIONS	COUNT	Area (Hectares)	% Allocation	Sustainable Annual harvest (m3)
<b>PRODUCTION LANDS ending December 2022</b>				
Small concessions	551	2,360,716.00	43.7%	637,393.32
AL and ML	14	12,429.70	0.2%	NA
State Exploratory Permits (SFEP)	2	134,850.38	2.5%	NA
Large Concessions	22	2,878,442.43	53.3%	597,658.31
Total Production Area Allocated	589	5,386,438.51	100.0	1,235,051.63
<b>PERMANENT RESEARCH AND RESERVES</b>				
GFC Forest Reserves	12	17,924.92		
Total Forest Allocated		5,404,363.430		
Unallocated State Forest		7,161,636.57		
<b>Total State Forest</b>		<b>12,566,000</b>		
Iwokrama	1	371,681.00		
Kaieteur National Park	1	61,091.34		
Other (Shell Beach, Kanuku)	2	730,300		
<b>Total area size of Protected Area</b>		<b>1,163,072.34</b>		

## 9. Other Forest Sector License

Sector activity licences are valid for one (1) calendar year only; continued activity at these operations requires annual renewals.

❖ License Type	Comparison of Year 2022 & 2021 License					Total
	Year	Division				
		Demerara	Berbice	Essequibo	North West	
Timber Dealer Export	2022	24	11	1		36
	2021	35	19	5	0	59
Import	2022	18	2			20
	2021	15	2	0	0	17
Consolidated Log Export	2022	15	4	1	1	21
	2021	14	1	1	0	16
Lumber Yard	2022	81	36	25	3	145
	2021	84	34	24	3	145
Timber Dealer No Storage	2022	4	2	5	1	12
	2021	4	4	6	1	15
Sawpit License	2022	48	48	95	24	215
	2021	54	45	101	20	220
Sawmill License	2022	95	35	59	3	192
	2021	98	35	71	2	206
Firewood License	2022	3	4	5		12
	2021	4	4	5	0	13
Charcoal License	2022	41	2	1		44
	2021	38	3	1	3	45
Timber Depot	2022	22	22	7		51
	2021	24	27	6	0	57
Timber Path	2022		2			2
	2021	0	3	2	0	5
Permit to Erect	2022	20	3	4	1	28
	2021	22	4	9	0	35
Total	2022	371	171	203	33	778
	2021	392	181	231	29	833

## 10. Production

The Production Table below compares the production levels of several forest products for the 2022 review period to their levels in 2021. An overview of the volume of timber product production is given in this section. A total of 478,696m<sup>3</sup> of timber (including plywood) were produced in 2022, an increase of 16% over the 377,838m<sup>3</sup> reported for that year of 2021.

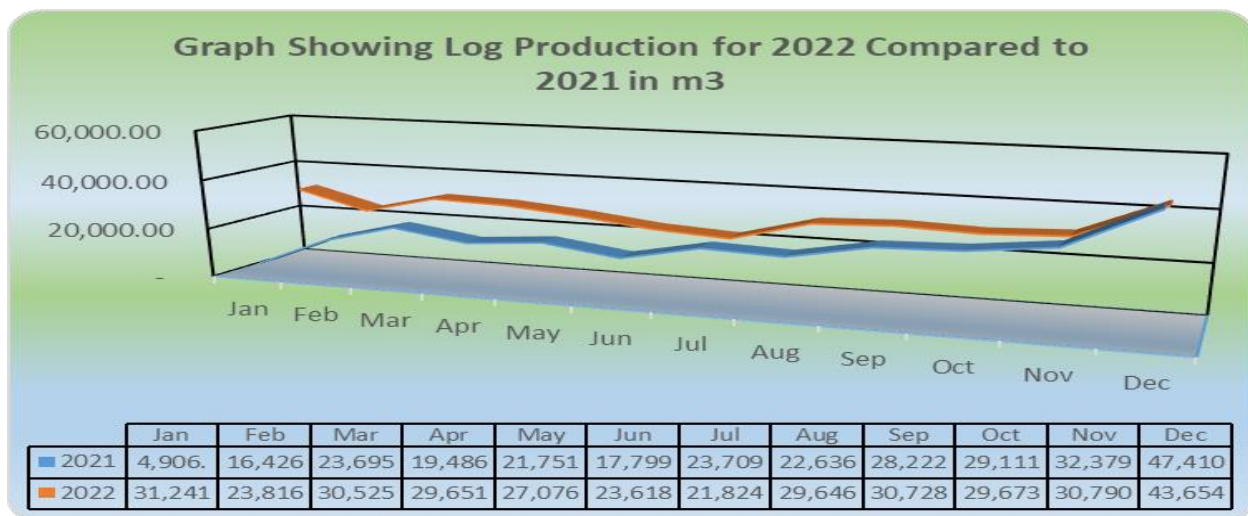
GUYANA FORESTRY COMMISSION								
Table 1: Total Production for December 2022 Compared to December 2021								
PRODUCTS	Unit	Dec 2022 Total	Dec 2021 Total	<sup>1</sup> % Change over Dec '21	Jan-Dec 2022 Total	Jan-Dec 2021 Total	<sup>1</sup> % Change over Jan-Dec '21	
<b>TIMBER PRODUCTS</b>								
<b>Logs</b>								
Special Category								
Greenheart		8,211.58	13,450.73	(38.95)	56,028.64	48,910.49	14.55	
Purpleheart		1,269.62	4,287.80	(70.39)	8,697.55	12,112.38	(28.19)	
Others		1,046.54	746.74	40.15	5,852.03	6,080.31	(3.75)	
<b>Total Special Category Logs</b>		<b>10,527.74</b>	<b>18,485.28</b>	<b>(43.05)</b>	<b>70,578.22</b>	<b>67,103.18</b>	<b>5.18</b>	
Class 1		15,934.07	22,480.43	(29.12)	143,983.88	129,671.59	11.04	
Class 2		11,237.36	10,225.54	9.89	80,755.69	68,178.08	18.45	
Class 3		5,954.89	6,219.43	(4.25)	56,930.24	39,441.35	44.34	
<b>Total Other Class Logs</b>		<b>33,126.32</b>	<b>38,925.41</b>	<b>(14.90)</b>	<b>281,669.81</b>	<b>237,291.02</b>	<b>18.70</b>	
<b>Total Logs</b>		<b>43,654.06</b>	<b>57,410.68</b>	<b>(23.96)</b>	<b>352,248.04</b>	<b>304,394.21</b>	<b>15.72</b>	
<b>Roundwood</b>								
Special Category								
Greenheart Piles		2,697.27	1,309.53	105.97	17,497.73	14,240.36	22.87	
Kakaralli Piles		168.83	55.32	205.17	1,354.28	1,441.63	(6.06)	
Wallaba Poles		380.46	411.29	(7.50)	3,585.78	4,078.31	(12.08)	
Posts		146.65	66.70	119.87	1,627.66	2,303.53	(29.34)	
Spars		0.48	11.42	(95.81)	84.12	129.91	(35.25)	
<b>Total Roundwood</b>		<b>3,393.68</b>	<b>1,854.26</b>	<b>83.02</b>	<b>24,149.56</b>	<b>22,193.75</b>	<b>8.81</b>	
<b>Primary (Chainsaw) Lumber</b>								
Special Category								
Greenheart		669.01	505.34	32.39	4,514.59	3,227.93	39.86	
Purpleheart		304.26	150.19	102.58	1,662.24	1,089.51	52.57	
Others		374.26	360.86	3.71	3,100.51	3,201.34	(3.15)	
<b>Total Special Cat. Lumber</b>		<b>1,347.53</b>	<b>1,016.39</b>	<b>32.58</b>	<b>9,277.34</b>	<b>7,518.78</b>	<b>23.39</b>	
Class 1		1,740.32	2,389.48	(27.17)	17,621.21	17,167.15	2.64	
Class 2		1,075.09	1,103.20	(2.55)	9,028.30	8,712.35	3.63	
Class 3		598.96	698.50	(14.25)	5,312.41	5,412.17	(1.84)	
<b>Total Other Class Lumber</b>		<b>3,414.37</b>	<b>4,191.18</b>	<b>(18.53)</b>	<b>31,961.92</b>	<b>31,291.67</b>	<b>2.14</b>	
<b>Total Primary Lumber</b>		<b>4,761.90</b>	<b>5,207.57</b>	<b>(8.56)</b>	<b>41,239.26</b>	<b>38,810.45</b>	<b>6.26</b>	
<b>Splitwood</b>								
Special Category								
Paling Staves		1.60	3.28	(51.04)	23.95	33.01	(27.46)	
Vat Staves					-	-	-	
Shingles					-	-	-	
<b>Total Splitwood</b>		<b>1.60</b>	<b>3.28</b>	<b>(51.04)</b>	<b>23.95</b>	<b>33.01</b>	<b>(27.46)</b>	
<b>Fuelwood</b>								
Charcoal		225.42	1,157.65	(80.53)	7,822.41	7,831.82	(0.12)	
Firewood		959.30	784.52	22.28	8,248.01	9,925.66	(16.90)	
<b>Total Fuelwood</b>		<b>1,184.72</b>	<b>1,942.17</b>	<b>(39.00)</b>	<b>16,070.43</b>	<b>17,757.48</b>	<b>(9.50)</b>	
<b>Plywood</b>		<b>856.20</b>	<b>692.33</b>	<b>23.67</b>	<b>13,515.04</b>	<b>12,407.12</b>	<b>8.93</b>	
<b>NON - TIMBER FOREST PRODUCTS</b>								
Special Category								
Wattles	pieces	57,390.00	52,917.00	8.45	477,624.00	440,711.00	8.38	
Manicole Palm	pieces	622,733.00	250,296.00	148.80	3,945,254.00	2,899,118.00	36.08	

## 10.1 Production Volumes

Table 4 presents production volumes for various primary Timber and Non-Timber forest products, together with Plywood, for the Year 2022 compared to 2021.

### 10.1.1 Log Production

The graph below shows the production of monthly logs for the years 2022 and 2021. The amount of logs produced increased by 15.72% to 352,248m<sup>3</sup> during the same period in 2022, compared to an output of 304,394m<sup>3</sup> produced in 2021.



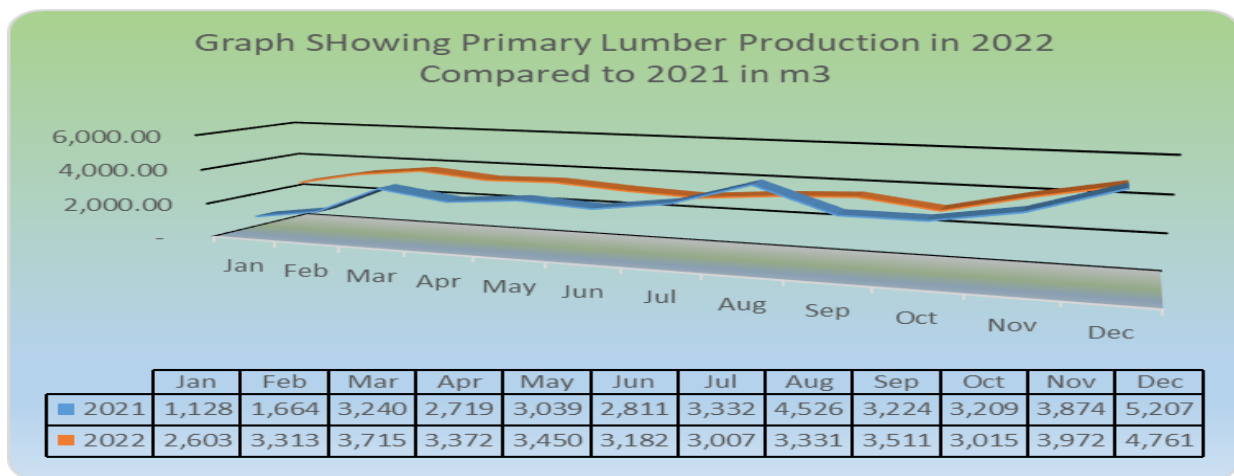
In contrast to 2021, every category of logs displayed an increase in volume. The average annual production of logs in 2022 was 28,054 m<sup>3</sup>. More than 30,000 m<sup>3</sup> of production were recorded for almost half of 2022. This increase was caused by a high production of logs in the Class 1, Class 2, and Special Category categories.

### 10.1.2. Log Production by GFC Reporting Division and Forest Station

With a production of 140,020 m<sup>3</sup>, Demerara County recorded the highest State Forest log production. Berbice produced 70,712 m<sup>3</sup> and Essequibo 62,636 m<sup>3</sup>, respectively, after that. The three largest producing stations in the county of Demerara were Linden (60,877 m<sup>3</sup>), Soesdyke (51,035 m<sup>3</sup>), and Georgetown (13,438 m<sup>3</sup>). The stations with the highest production in Berbice were Kwakwani (33,803 m<sup>3</sup>), Unamco Road (12,008 m<sup>3</sup>), and Springlands (10,308 m<sup>3</sup>). The three highest producing stations in Essequibo were Parika (23,996 m<sup>3</sup>), Manaka (8,786 m<sup>3</sup>), and Winiperu (6,994 m<sup>3</sup>).

## 10.2. Lumber Production

In 2022, 41,239m<sup>3</sup> of primary lumber were produced. This indicates a 6% increase in production over 2021. This increase was caused by high production, especially in the second and last quarters of the year. The average production of primary lumber in 2022 was 3,436 m<sup>3</sup>, with the three months with the highest production being December (4,761 m<sup>3</sup>), November (3,972 m<sup>3</sup>), and March (3,715 m<sup>3</sup>). In 2022, Kabukalli, Wallaba, Greenheart, Tauroniro, Bulletwood, Simarupa, Mora, Kereti, Purpleheart, and Shibadan were the principal species utilized in the production of primary lumber.



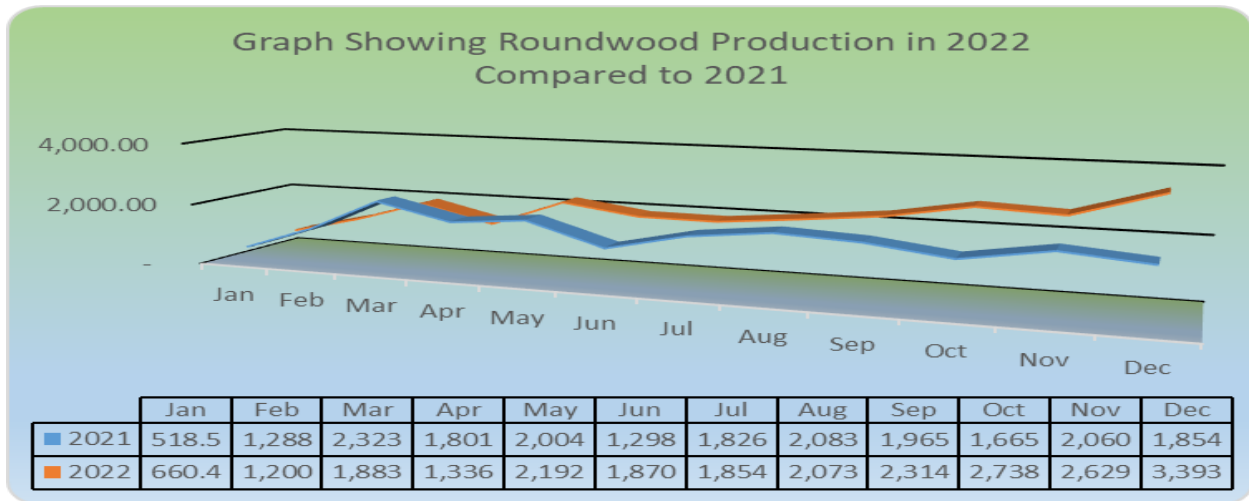
### 10.2.1 Primary Lumber Production by GFC Reporting Division and Forest Station

The three reporting counties in Guyana produced 41,239m<sup>3</sup> of primary lumber in 2022. Out of the total amount of lumber, 22,517m<sup>3</sup> came from state forest operations, with the remaining 18,720m<sup>3</sup> coming from private properties and Amerindian Reservations. With 22,504 m<sup>3</sup>, or 55% of the nation's total primary timber volume, GFC Demerara stations reported the most primary lumber; Essequibo and Berbice came in second and third, respectively, with 14,926 m<sup>3</sup> and 3,807 m<sup>3</sup>. In 2022, the stations with the highest production were Soesdyke, Georgetown, and Linden in Demerara; Supenaam, Charity, and St Monica in Essequibo; and Springlands, Canje, and Orealla in Berbice.

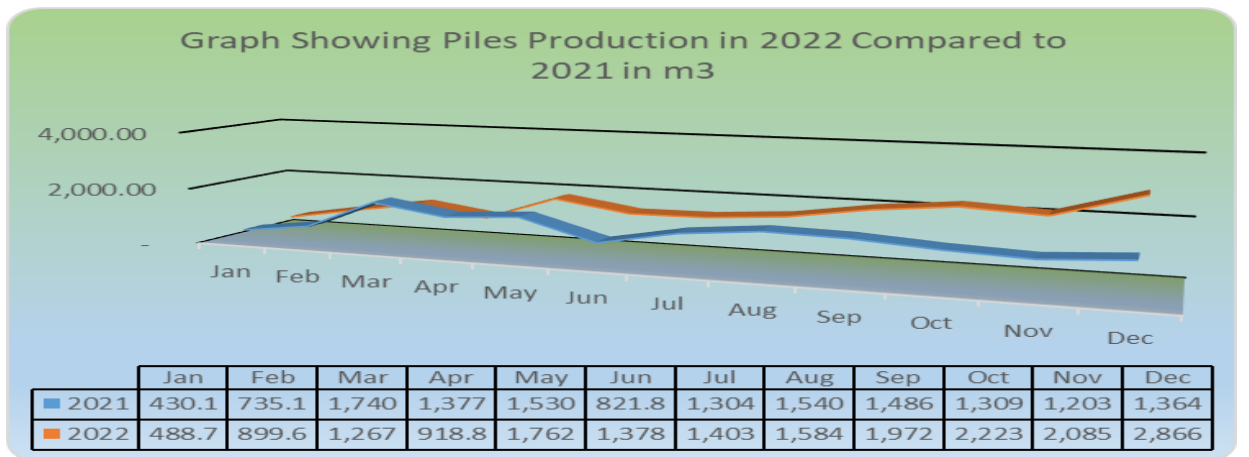
## 10.3 Roundwood Production

Roundwood products consist of piles, poles, posts, and spars. The majority of the piles produced were Greenheart species, with a few Kakaralli. The poles, posts, and spars produced were derived

from the Wallaba species.



The line graph compares the production of Roundwood in 2022 and 2021. The total amount of Roundwood produced during the observation period showed encouraging growth, indicating strong domestic market demand, a competitive export market, and a general level of price. Roundwood production in 2022 was 24,149 m<sup>3</sup>, a 9 percent increase from 22,193 m<sup>3</sup> in 2021. The primary driver of the increase in roundwood production overall was the production of Greenheart Piles, which rose from 14,240 m<sup>3</sup> in 2021 to 17,497 m<sup>3</sup> in 2022. The production of all other roundwood products decreased in 2022.



The graph on the overleaf depicts the trends in Greenheart Pile production. During the 2022 review period, Greenheart's Piles production remained above that of 2021. The piles were produced at an average rate of 1,571 m<sup>3</sup>. Greenheart Piles make up the majority of the Roundwood category. In

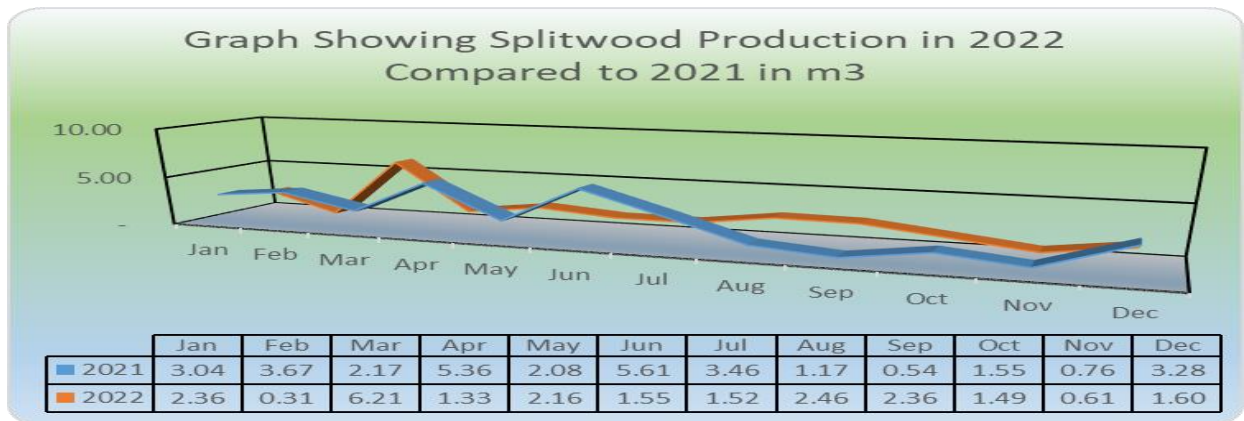


2022, these piles accounted for roughly 78% of all roundwood produced, indicating that this product had a significant impact on production trends.

#### 10.4 Splitwood Production

Splitwood includes both Vat and Paling staves as well as non-machine made shingles, which are typically made from Wallabalogs.

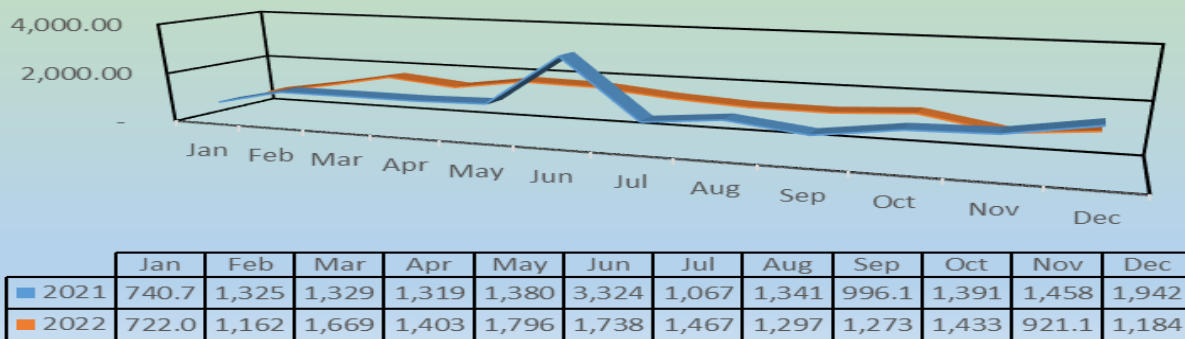
Splitwood primary production in 2022 was 23.95 m<sup>3</sup>, down from 33.01 m<sup>3</sup> in 2021; this represents a 27% decline in production. Paling Staves was the only product in this category that recorded production.



#### 10.5 Fuelwood Production

Fuelwood comprised of both Charcoal and Firewood. During the review period, the production of fuelwood fell by 9.5% in comparison to the volume produced in 2021. The primary cause of this is the decline in firewood demand. The graph on the overleaf illustrates how the total amount of firewood produced in 2022 was 16.9% less than that of 2021. In 2022, the total amount of firewood produced was 8,248 m<sup>3</sup>, compared to 9,925 m<sup>3</sup> in 2021.

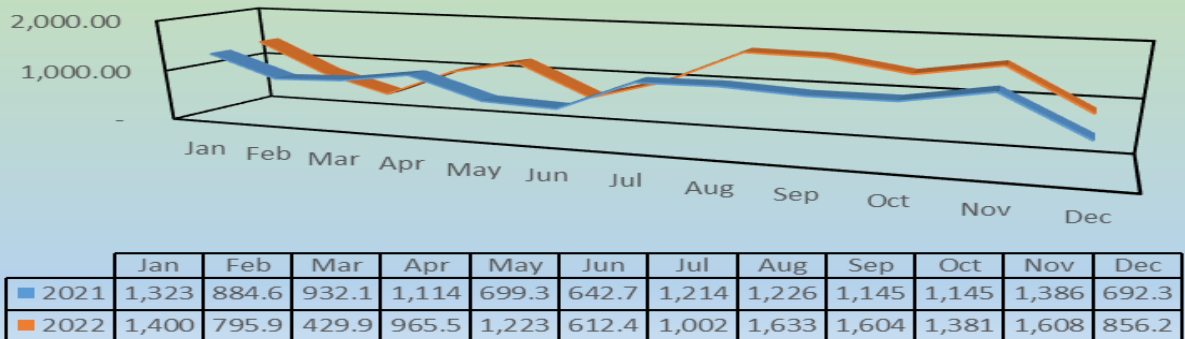
Graph Showing Fuelwood Production in 2022 Compared to 2021 in m3



### 10.6 Plywood Production

Plywood panels are fabricated from multiple layers or plies of softwood veneer glued together with the grain direction of each layer of veneer perpendicular to that of the adjacent layers. In Guyana, Plywood is manufactured by the Barama Company Limited.

Graph Showing Plywood Production in 2022 Compared to 2021 in m3



Compared to the same period in 2021, plywood production increased by 8.93% in 2022. With the exception of a weak output in the first quarter of 2022, plywood production increased over the observed period.

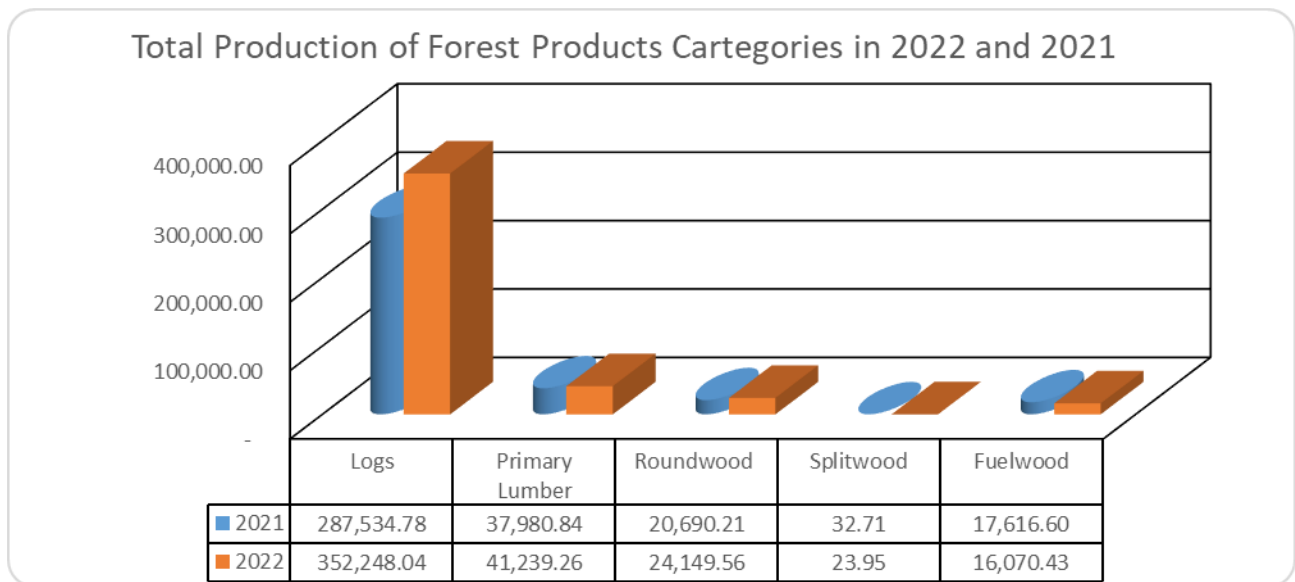
### 10.7 Non Timber Forest Product

Non-timber forest products (NTFPs) refer to a range of products other than primary and secondary wood products derived from forest resources. These include Wattles, Manicole Palm, Mangrove Bark, Palms and Latex (Balata).

Manicole Palma (Heart of the Palm) production in 2022 was 3,945,254 pieces, up more than 36% from 2,899,118 in 2021. Wattles were also produced in 2022, totaling 477,624 pieces, an 8.38 percent increase over 2021's production of 440,711 pieces.

## 11. Comparative Production Volume Analysis

The graph below shows the total trend in forest production by product type. From 2021 to the present, the volume of all goods increased except for Splitwood and Fuelwood, which decreased.



## 12. Employment and Domestic Prices

Activity	2021	2022	% Change
Logs	10,913	10,103	<b>(7.42)</b>
Sawmilling	4,286	4,311	<b>0.58</b>
Timber Dealership (Lumberyards)	1,448	1,469	<b>1.45</b>
Plywood	250	296	<b>18.40</b>
Manicole Palm	238	241	<b>1.26</b>
Others*	2,784	2,796	<b>0.43</b>
<b>Total</b>	<b>19,919</b>	<b>19,216</b>	<b>(3.53)</b>

The forestry industry saw a 3.53% decline in employment between January and December of 2022. Out of the six forest sector industries, the logging category showed a decline in employment. Further investigation indicates that there has been a labor scarcity in the logging industry. This is

a result of the oil and gas industry's strong labor demand. The number of jobs in the forest sector decreased to 19,216 in 2022 from 19,919 in 2021.

### 13. Domestic Prices

Products	Year									
	2018		2019		2020		2021		2022	
	GY\$	US\$	GY\$	US\$	GY\$	US\$	GY\$	US\$		
Logs	35,910	171	35,280	168	37,590	179	35,070	167	31,148	148
Sawnwood*	135,030	643	149,520	712	207,900	990	230,077	967	207,760	989
Dressed	156,660	746	164,640	784	220,080	1048	240,464	1145	243,198	1158
Undressed	110,040	524	114,870	547	169,050	805	165,690	789	172,321	821
Roundwood	96,600	460	101,220	482	111,930	533	109,200	520	113,510	541
Splitwood	57,750	275	60,060	286	78,120	372	78,750	375	79,006	376
Fuelwood	8,820	42	7,560	36	10,080	48	8,820	42	8,716	42
Sawnwood * is the combined average for Dressed and Undressed Sawnwood										
2022 Exchange Rate GY\$210 =1US\$										

The table above shows domestic prices for major forest products. Log prices have fallen to US\$148 and are expected to remain there through 2023. Lumber prices are still higher than they were in 2021.

Because of the high demand for Roundwood, the prices of all Roundwood products rose in tandem. Average sawnwood prices rise above 2021 levels, while fuelwood and splitwood prices remain relatively stable.

## 14. Export

### 14.1. Export Summary

This section examines the various categories of forest products exported and presents an analysis of their impact on the forest sector in 2022. The table on the overleaf compares export performances in 2022 against their relative 2021 levels, categorized by product and category, where applicable.

The total export value for 2022 was US\$33.78 million, an 8.89% increase over the export level for forest products in 2021, which was US\$31.02 million. Sawn Lumber generated the most revenue of any forest product in 2022, earning US\$17.17 million. Log Exported followed with earnings of \$7.4 million. Splitwood has been the most improved export product, with a volume of 5,675m<sup>3</sup> and earnings of \$5.57 million.

Between 2021 and 2022, the volume of log exports dropped from 53,929 m<sup>3</sup> to 42,949 m<sup>3</sup>. As a result, the volume exported fell by 20.36 percent.

Sawnwood exports increase in both volume and value in 2022. A total volume of 15,619m<sup>3</sup> worth US\$17.17 million was exported. During the review period, both Dressed and Undressed Sawnwood showed an increase, resulting in an overall increase for this product.

Roundwood export volume decreased by 2.74%, but value increased by 13.68%. Roundwood exports in 2022 totaled 5,878m<sup>3</sup>, compared to 6,044m<sup>3</sup> in 2021. Compared to the value of US\$2.67 million recorded in 2021, the total value earned in 2022 was US\$3.04 million.

Paling Splitwood is made up of staves and shingles. Shingles were the only item in this category exported during the review period. This product's export volume increased by 34.55 percent in 2022, while its value increased by 37.11 percent.

Plywood exports fell by 97.33% in volume and 96.71% in value during the review period, compared to 2021 totals.

Fuelwood exports increased in volume by 10.34% and in value by 0.3%. When compared to 2021 levels, the value of Other Non-Timber Forest Products fell by 47.58%, while the value of Other Value-Added Products rose by 45.61%.

**GUYANA FORESTRY COMMISSION**

*Table 2: Export Volumes and Values by Product for the period December 2022*

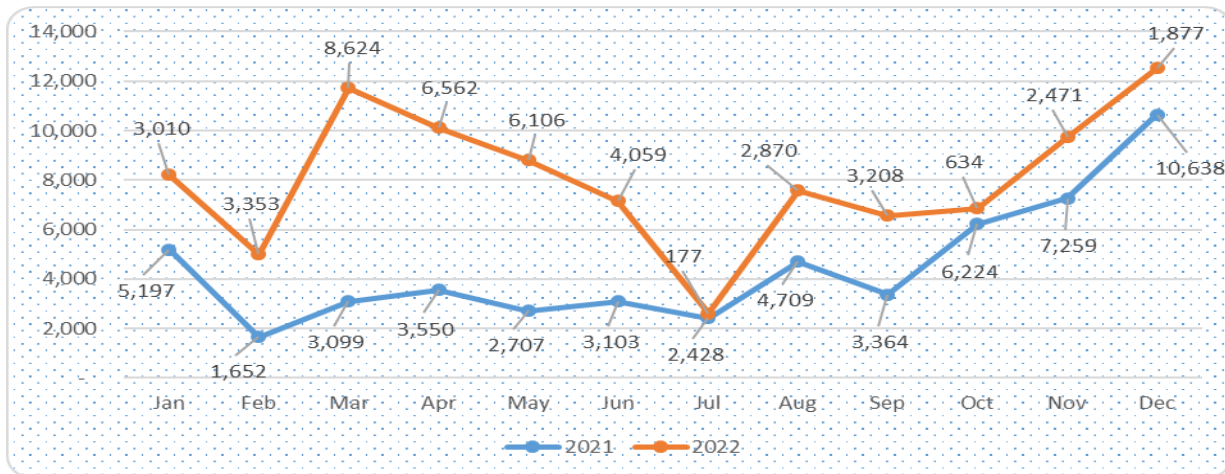
PRODUCT	Jan-Dec 2022		Jan-Dec 2021		% Change Over	
	Volume	Value	Volume	Value	Jan-Dec 2021	
	m <sup>3</sup>	US\$	m <sup>3</sup>	US\$	% Vol	% Val
<b>Logs</b>	42,949.32	7,401,108.10	53,929.48	9,147,981.80	(20.36)	(19.10)
<b>Sawnwood</b>	15,619.54	17,171,648.41	13,172.99	13,958,310.15	18.57	23.02
<i>Dressed</i>	6,135.53	8,938,360.61	5,071.09	6,723,310.66	20.99	32.95
<i>Undressed</i>	9,484.01	8,233,287.80	8,101.90	7,234,999.49	17.06	13.80
<b>Roundwood</b>	5,878.43	3,041,952.57	6,044.15	2,675,847.01	(2.74)	13.68
Greenheart Piles	5,495.30	2,766,701.65	5,635.24	2,401,729.03	(2.48)	15.20
Kakaralli Piles	-	-	-	-	-	-
Other Piles	-	-	-	-	-	-
Poles	301.60	239,739.97	282.47	216,737.00	6.77	10.61
Posts	81.53	35,510.95	126.44	57,380.98	(35.52)	(38.11)
Spars	-	-	-	-	-	-
<b>Splitwood</b>	5,675.42	5,574,732.83	4,217.94	4,066,017.81	34.55	37.11
Paling Staves	-	-	-	-	-	-
Shingles	5,675.42	5,574,732.83	4,217.94	4,066,017.81	34.55	37.11
<b>Plywood</b>	35.72	22,999.97	1,339.97	699,165.45	(97.33)	(96.71)
<b>TOTAL TIMBER &amp; PLYWOOD</b>	<b>70,158.43</b>	<b>33,212,441.88</b>	<b>78,704.54</b>	<b>30,547,322.22</b>	<b>(10.86)</b>	<b>8.72</b>
<b>Furniture</b> (pcs)	<b>68.00</b>	<b>35,823.62</b>	-	<b>117,865.58</b>		<b>(69.61)</b>
Indoor Furniture	85.00	34,323.62	608.00	103,060.58	(86.02)	(66.70)
Outdoor/Garden Furniture	6.00	1,500.00	661.00	14,805.00		
<b>Building Componentry</b> (pcs)	<b>1,223.30</b>	<b>110,736.97</b>	-	<b>61,362.28</b>		<b>80.46</b>
Doors	338.00	82,256.02	200.00	34,930.06	69.00	135.49
Door Components	51.00	11,293.90	1.00	75.00	5,000.00	14,958.53
Windows	86.00	11,265.75	28.00	22,398.22		
Other Builder's Joinery (pcs)	102.00	4,005.00	51.00	3,515.00	100.00	13.94
(m <sup>3</sup> )	-	-	-	-	-	-
Rails (pcs)	5.00	325.00	4.00	300.00	25.00	8.33
Wattles	10,839.30	1,591.30	-	-		
Spindles (pcs)	-	-	9.00	144.00	-	-
<b>Mouldings</b> (m)	<b>19,234.70</b>	<b>54,988.74</b>	<b>3,534.77</b>	<b>9,907.88</b>	<b>444.16</b>	<b>455.00</b>
<b>Pre-Fabricated Houses</b> (pcs)	<b>4.00</b>	<b>80,400.00</b>	<b>1.00</b>	<b>4,500.00</b>	<b>300.00</b>	<b>1,686.67</b>
<b>OTHER (than Plywood) VALUE ADDED</b>	<b>2,654.54</b>	<b>281,949.33</b>	-	<b>193,635.74</b>		<b>45.61</b>
<b>Fuelwood</b> (m <sup>3</sup> )	<b>7,599.12</b>	<b>282,340.59</b>	<b>6,886.71</b>	<b>281,502.94</b>	<b>10.34</b>	<b>0.30</b>
Charcoal	7,566.50	280,252.59	7,803.37	281,214.94	(3.04)	(0.34)
Firewood	32.63	2,088.00	21.74	288.00	50.07	625.00
<b>Other</b> (pcs)	<b>406.00</b>	<b>3,386.80</b>	-	<b>2,600.00</b>		<b>30.26</b>
Wooden Ornaments & Utensils	606.00	2,390.90	204.00	700.00		
Craft	259.00	995.90	15.00	1,900.00	1,626.67	(47.58)
<b>Non - Timber Forest Products</b> (pcs)	<b>140.00</b>	<b>8,498.00</b>	<b>48.00</b>	<b>4,610.00</b>		
<b>OTHER PRODUCTS</b>	-	294,225.39	-	288,712.94	-	1.91
<b>TOTAL EXPORT VALUE</b>		<b>33,788,616.60</b>	<b>0</b>	<b>31,029,670.90</b>		<b>8.89</b>

## 14.2. Log Export

The various aspects of forest product exports in 2022 are described in detail in this section.

The log export volume from January to December 2022 was 42,949 m<sup>3</sup>, with a value of \$7.4 million. When compared to the 2021 total of 53,929 m<sup>3</sup> and US\$9.14 million, this represents an 18.57 percent and 23.02 percent decrease in volume, respectively.

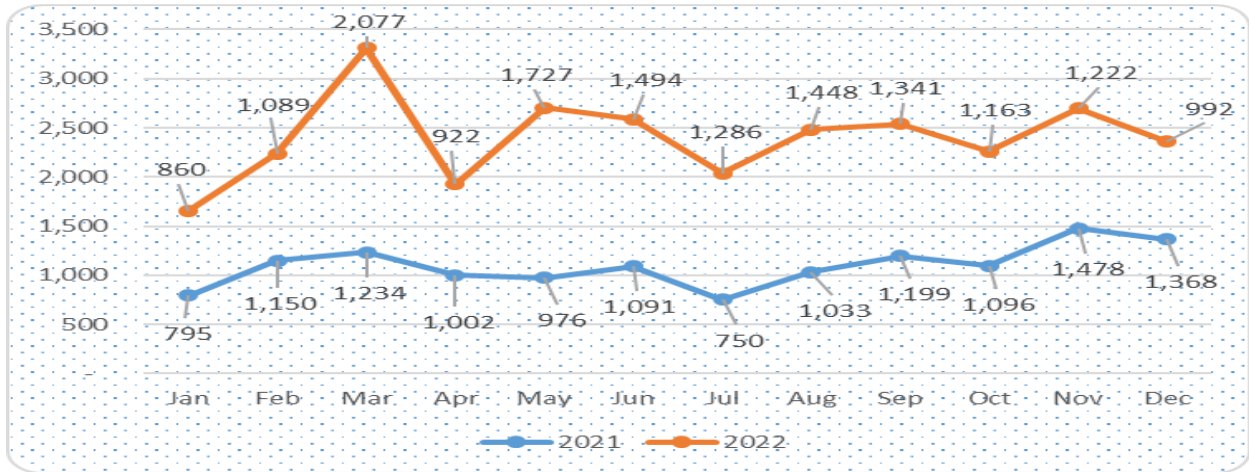
### Log Export Volume 2022 and Comparative 2021



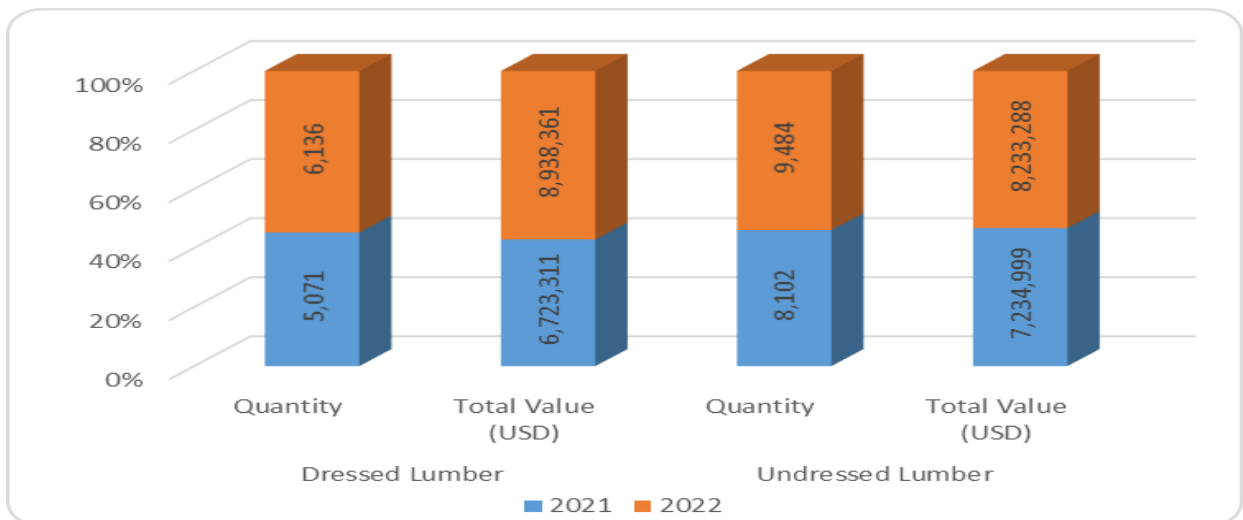
The above line chart depicts the log export volume pattern for 2022. March 2022 saw the highest export level, while July 2022 had the lowest export level.

## 14.3. Sawnwood Export

In 2022, sawnwood exports accounted for 15,619 m<sup>3</sup> and brought in US\$17.17 million. In contrast to the previous year's volume of 15,172 m<sup>3</sup> and value of US\$13.95M. Both export volume and value grew by 23.02% and 18.57%, respectively.



The graph below depicts the percentage of Sawnwood exports in various categories, as well as their contribution to total product volume.

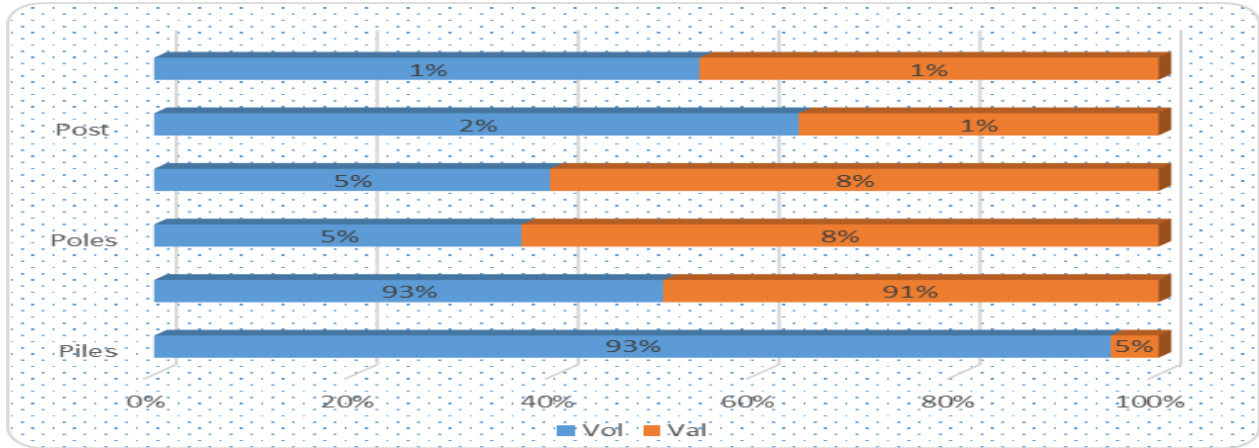


Sawnwood's revenue increased in 2022 as a result of higher Dressed and Undressed lumber export volumes. Sawnwood's primary export markets remain North America and Latin America/the Caribbean, with exports to Europe expected to increase in 2023.

#### 14.4. Roundwood Export

Roundwood exports decreased in volume but increased in value in 2022 compared to 2021. During the review period, three subproducts in the Roundwood category were exported: piles, poles, and posts.

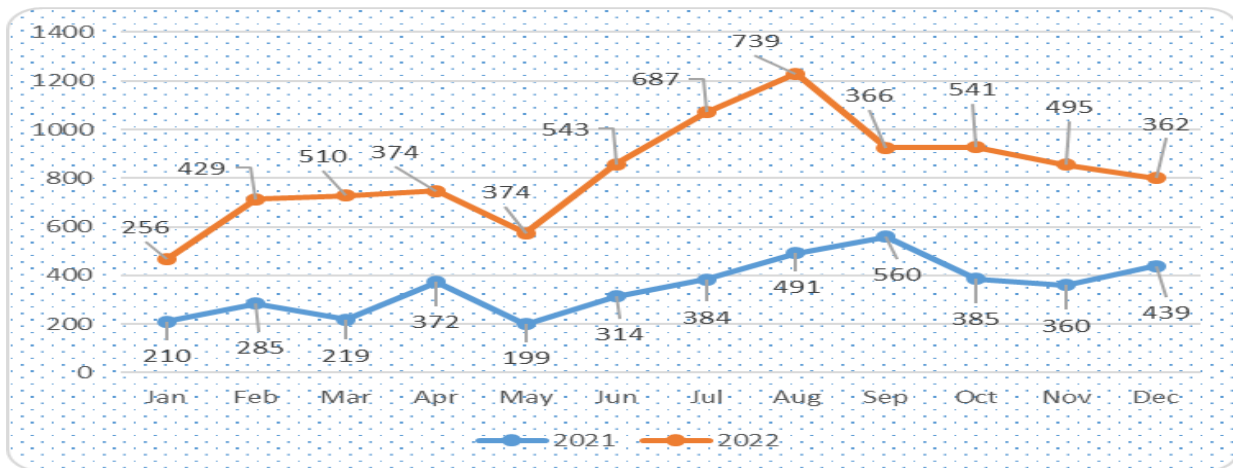




Piles account for the largest percentage share of all roundwood products, accounting for 93% volumetric export and 91% revenue from total roundwood export. Pole exports accounted for 5% of roundwood exports and 8% of total roundwood export revenue. In 2022, export prices for products in this category increased on average.

#### 14.5. Splitwood Export

Two products are exported under the Splitwood category. These are Shingles and Paling Staves. In 2022, only shingles were exported in the Splitwood category.



Splitwood export volume and value increased significantly (34.55% and 37.11%, respectively), with Shingles being the only type exported. The higher percentage of value gained from Shingles reflects the steady increase in prices earned for this product. Shingles exports totaled 5,657m³ in 2022, earning US\$5.57 million, while 4,217m³ of Splitwood was exported in 2021, earning US\$4.06 million.

## 14.6. Plywood Export

Plywood exports for 2022 totaled 35.72m<sup>3</sup> at a value of US\$0.22 million. When compared to 2021, Plywood had lower volume and value, indicating lower production. Barama Company Limited, which manufactures plywood in Guyana, stated that a decision was made to suspend all exports in order to meet local demand.

## 14.7. Other Value Added Products and Other Non-Timber Forest Products

Export revenue from Other Value-Added Products (value-added items other than plywood) increased by 45.61% in 2022 (from US\$193,635 to US\$281,949) over the same period in 2021. This increase was driven by the export of Furniture, Building Componentry, Mouldings, and Pre-Fabricated Houses. Other products were exported under this category, but in smaller quantities compared to 2021.

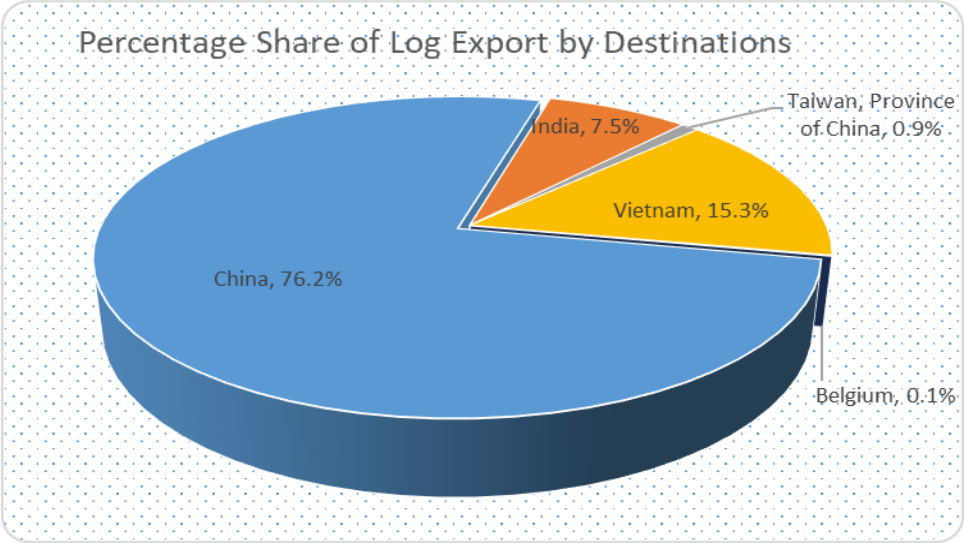
The total export revenue from Other Non-Timber Forest Products was US\$294,225. When compared to 2021, exports of these products increased by 1.91%. This was due to an increase in the export of firewood.

## 14.8. Export by Regions and Destinations

This section examines timber product exports, which include logs, sawnwood, roundwood, splitwood, and plywood, by export destination in the international regions of Asia/Pacific, Europe, Latin America/Caribbean, North America, South America, and Africa.

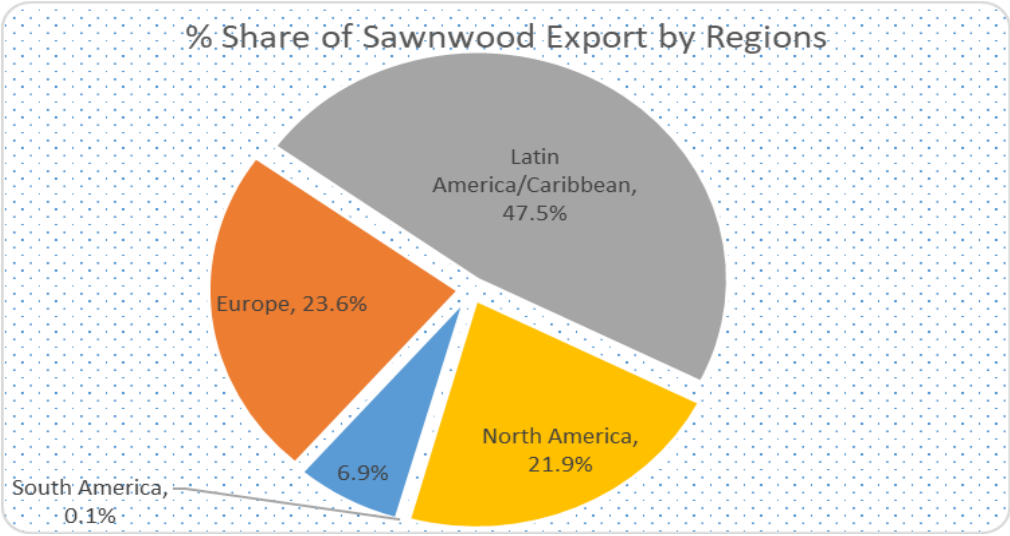
### 14.8.1. Log Export by Destinations

In 2022, the log market remained exclusive to the Asian Pacific region, with only a small amount exported to Europe. The main destinational markets in the Asian Pacific region were China, India, Taiwan, and Vietnam, accounting for 99% of the total market share. Exports to Belgium in Europe accounted for the remaining 1% of the market share. Exports to China totaled \$5.64 million, or 76.2% of total market share.



14.8.2.Sawnwood Export by Regions

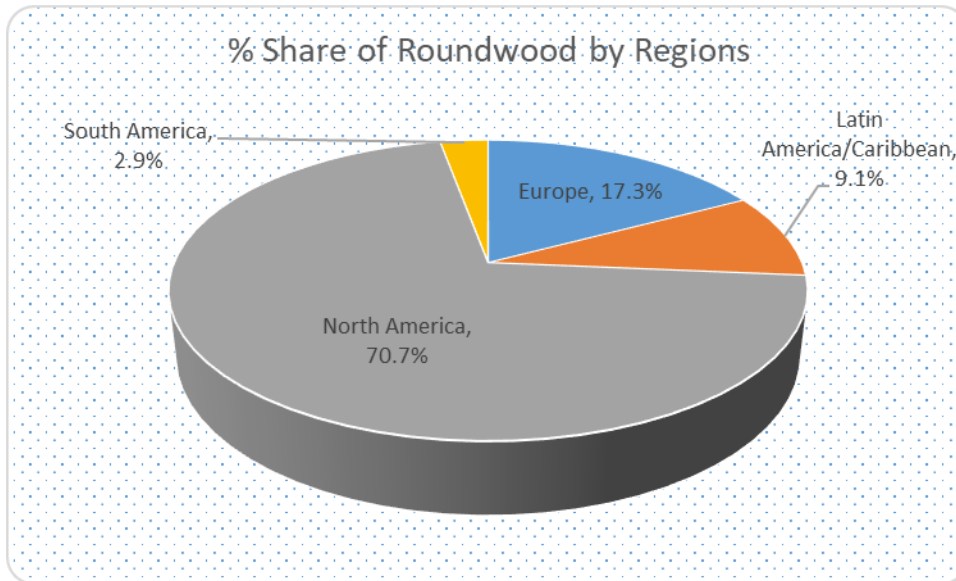
The Latin America/Caribbean (LAC) region remains the primary destination for Guyana's sawnwood, consuming 7,397m3 at a market value of US\$8.15 million and accounting for 48% of total sawnwood exports. The lumber exported was divided into two categories: 9,484m3 of dressed lumber valued at \$8.23 million and 6,135m3 of undressed lumber worth \$8.93 million.



Sawnwood was exported to 17 destinations in the LAC region, with Barbados, Dominica, Jamaica, Trinidad and Tobago, St Kitts and Nevis, and Grenada being the five main destinations. Smaller quantities went to the remaining destinations. Exports of both dressed and undressed sawnwood to Europe and North America increased in 2022.

### 14.8.3.Roundwood Export by Regions

The region with the highest consumption of Roundwood 4,096m<sup>3</sup> has been North America. With 70% of total roundwood market share, the United States continues to be the only market for Guyana's roundwood in the North America region.

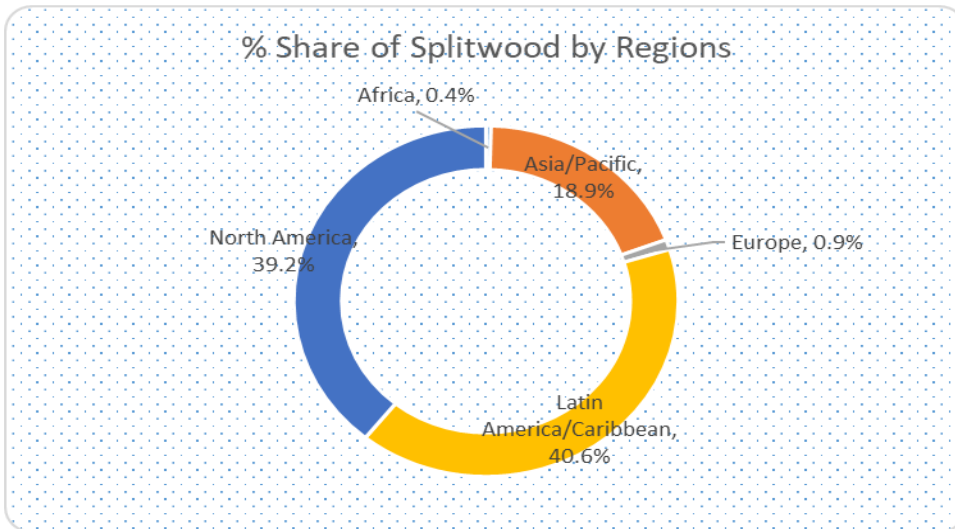


Other notable European markets included the Netherlands, Italy, and Denmark, which together accounted for 1,291 m<sup>3</sup>. There were eight markets in the LAC region, with the Bahamas, Saint Kitts and Nevis, and Trinidad and Tobago being the three largest. The only market in South America was in Suriname.

### 14.8.4.Splitwood Export by Regions

In 2022, shingles was the only product exported under the Splitwood category. During the review period, 5,675m<sup>3</sup> of shingles worth US\$5.57M were exported.

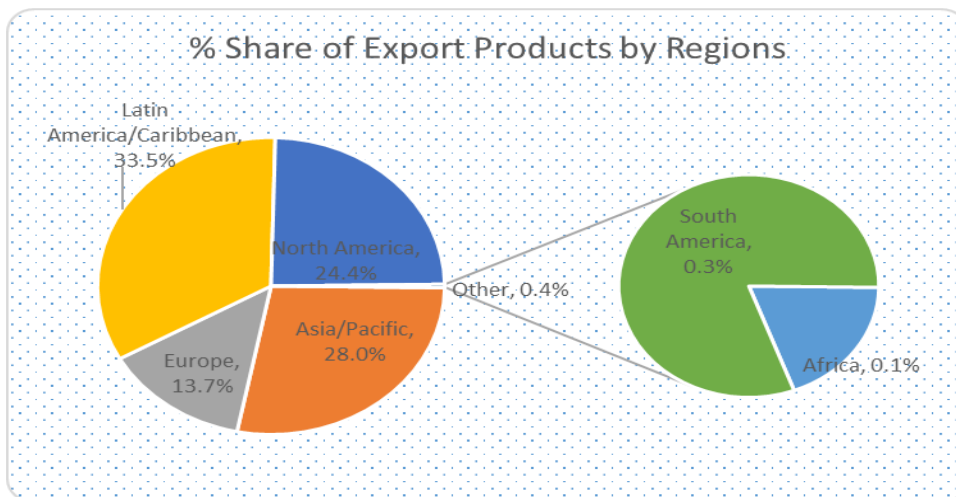
North America and the LAC area accounted for the majority of Guyana's splitwood product consumption in 2022. In total, 2,302 m<sup>3</sup> and 2,224 m<sup>3</sup> of volume were exported to these two regions



The principal markets in the LAC region were those of Jamaica, the Bahamas, the French West Indies, and Barbados. Canada and the United States of America were the two major markets in North America. There were 2,302 m<sup>3</sup> of total exports to the LAC region and 2,224 m<sup>3</sup> to North America.

#### 14.8.5. Forest Sector Earnings by Regions

The LAC region has been the largest market for Guyana's forest products accounting for 34% of total export earnings in 2022 with a value totaling US\$11.32M. Export to the Asia Pacific followed with 28%. Noteworthy, there has been a gradual decline in export to this market as a result of a decline of log export. However there has been opposite increase in export to markets in North America and Europe.



In 2022, the United States, China, Barbados, the United Kingdom, and Jamaica were the top destination markets for Guyana forest products.

Regions	2018	2019	2020	2021	2022
Africa	1%	1%	1%	0.30%	0.07%
Asia/Pacific	40%	38%	36%	39%	28%
Europe	8%	10%	15%	12%	14%
Latin America/Caribbean	33%	29%	27%	25%	34%
North America	18%	22%	21%	24%	24%
South America	0.10%	0.10%	0.10%		0.31%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

## 15. Export Prices

With the exception of logs, roundwood, and splitwood, which saw decreases in export prices over the 2021 price level, all other product categories saw increases. The greatest increase in average prices was observed for fuelwood and dressed lumber.

Products	2021/m3	2022/m3	% Change over 2021
Logs	187	177	(0.05)
Sawnwood	1,215	1,251	0.03
Dressed	1,347	1,574	0.17
Undressed	903	927	0.03
Roundwood	648	498	(0.23)
Splitwood	1,011	901	(0.11)
Fuelwood	56	69	0.23
Plywood	540		

\*\* Rows indicates a combined average of Dressed and Undressed Sawnwood

\*\*\* Splitwood Export prices refers to Mill produced Splitwood mainly Shingles

## 16. Reference

1. Guyana Forestry Commission, *Forest Sector Information Report (2021)*, Georgetown
2. OECD Economic Outlook, Volume 2023 Issue 2
3. IMF” World Investment Report” 2023
4. UNCTAD. (2022). Investment Trend Monitor. Geneva: United Nation
5. International Tropical Timber Report December 2022

## 17. Appendix

### Major Timber Species and their Uses

Classification	Species (Local Names)	Species (Scientific Names)	Major Uses
Special Category	Greenheart	<i>Chlorocardium rodiei</i>	Boat building, marine work, piling, general heavy construction, flooring, heavy furniture, turnery and finishing rods.
	Purpleheart	<i>Peltogyne venosa</i>	Building construction, flooring, bridging, boat building – keels, transoms, canoes, coach building, furniture, turnery, inlay, tool handles, sticks, bows, and veneer.
	Brown Silverballi	<i>Licaria cannella</i>	Boat building, canoes, furniture, interior work, and general carpentry.
	Red Cedar	<i>Cedrela odorata</i>	Furniture, cabinet work, panelling, boats, coffins and cigar boxes.
	Letterwood	<i>Brosimum guianense</i>	Inlay, turnery, sticks, tool handles and bows for archery.
	Bulletwood	<i>Manilkara bidentata</i>	General heavy construction, house framing, sleepers, mill rollers, wheel spokes, fencing, axe and tool handles, turnery.
Class 1	Crabwood	<i>Carapa guianensis</i>	General construction, interior work, carpentry, furniture, and turnery, plywood and veneer.
	Yellow Silverballi	<i>Aniba hypoglauca</i>	Boat planking, canoes, furniture, cabinet work, and interior construction.
	Itikiboraballi	<i>Swartzia xanthopetala</i>	Inlay turnery, cabinet work, walking sticks, bag-pipes and tool handles.
	Locust	<i>Hymenaea courbaril</i>	Ship-building, general construction, carriage buildings, tool handles, furniture and croquet mallets.
	Tatabu	<i>Diplotropis purpurea</i>	Boat-building, house framing, and flooring, furniture and turnery, interior work, carriage-building, tool handles, and sleepers.
	Determa	<i>Ocotea rubra</i>	Boat and carriage building, masts, furniture, carving, interior work, and general carpentry.
	Wamara	<i>Eperua grandiflora</i>	Furniture, cabinet work, parquet flooring, turnery, inlay, tool handles, walking sticks, and bows for archery.
	Kabukalli	<i>Goupia glabra</i>	Heavy construction, house framing, flooring, decking, punt bottoms, canoes, railway sleepers, paving blocks, furniture and decorative plywood.
	Shibadan	<i>Aspidosperma album</i>	Fuel and Plywood.
	Tauroniro	<i>Humiria balsamifera</i>	Heavy construction, piling, bridges, house framing, flooring, wheelwright work, furniture, sleepers, counters, work bench tops.
	Manniballi	<i>Moronobea coccinea</i>	Heavy construction house sills, machinery frames, flooring, furniture and sheet piling.
	Washiba	<i>Tabebuia sp.</i>	Bridges, house framing, sleepers, tool handles, rollers' walking sticks, and fishing rods.



	Hakia	<i>Tabebuia serratifolia</i>	Bridges, house framing, sleepers, tool handles, rollers' walking sticks, and fishing rods.
	Dalli	<i>Virola spp.</i>	Match boxes, coffins, inside boarding, carpentry, packing cases, plywood, slack cooperage chip board and concrete shuttering.
	Suya	<i>Pouteria speciosa</i>	Interior boarding, carpentry, and plywood.
	Ulu	<i>Trattinickia demerarae</i>	Inside boarding, cupboard linings, canoes and plywood.
	Simarupa	<i>Quassia simarouba</i>	Interior construction, furniture, shelves, drawer linings, shoe heels, plywood, paper pulp, toys.
	Aromata	<i>Clathrotropis branchypetala</i>	Furniture, house framing, boat building, flooring and sleepers.
	Mora	<i>Mora excelsa</i>	Building construction especially flooring, framing and siding, boat building especially ribs, stems, knees, transoms, and decking, sleepers, furniture, turnery, wagon building; wheelwright-work, naves and felloes, croquet mallets.
	Morabukea	<i>Mora gonggrijpii</i>	Heavy construction, sleepers, flooring and siding, heavy furniture, boat timbers, truck bodies.
	Hububalli	<i>Loxopterygium sagotii</i>	Panelling, furniture and cabinet work.
Class 2	Baromalli	<i>Catostemma commune</i>	Dry cooperage, interior work, paper pulp, and plywood.
	Dukalli	<i>Parahancornia fasciculata</i>	Carpentry, interior work, furniture, door and window stock, concrete shuttering, match boxes and plywood.
	Kereti Silverballi	<i>Lauraceae spp</i>	Shuttering, temporary buildings, box making, and plywood.
	Kurahara	<i>Calophyllum lucidum</i>	Boat planking, canoes, punt mast and furniture.
	Wabaima	<i>Licaria cannella</i>	Heavy construction, flooring, furniture, boat building (planking), bridge decking, musical instruments.
	Karohoro	<i>Schefflera decaphylla</i>	Match splints, drums, canoes, interior construction and plywood.
	Baradan	<i>Ocotea tomentella</i>	Canoes, concrete shuttering and plywood.
	Ubudi	<i>Anarcadium giganteum</i>	Interior work and plywood.
	Kirikua	<i>Iryanthera macrophylla</i>	Oars, interior construction, utility plywood, slack cooperage and concrete shuttering.
	Kurokai	<i>Protium decandrum</i>	Masts, spars, house framing and plywood.
	Maporokan	<i>Inga alba</i>	Interior work, fuel and cheap plywood.
	Monkey Pot	<i>Lecythis zabucajo</i>	General construction, furniture, turnery and wheel spokes.
	Manni	<i>Symphonia globulifera</i>	Utility wood, paper, pulp, plywood, cooperage, railway sleepers, sheet piling, packing cases, general carpentry, flooring, furniture and fuel.

	Pakuri	<i>Platonia insignis</i>	Piling, boat building, furniture, turnery, house framing, flooring, panelling, tight cooperage and general carpentry.
	Yaruru (Yarula)	<i>Aspidosperma excelsum</i>	Paddles, axe and tool handles, walking sticks, fishing rods and fuel.
	Muneridian	<i>Siparuna spp.</i>	
	Wallaba	<i>Eperua falcata</i> <i>Eperua grandiflora</i>	Pillar trees, roundwood framing, fence posts, transmission poles, sleepers, paling and vat staves, shingles, charcoal, particle board and firewood.
Class 3	Burada	<i>Parinari campestris</i>	Heavy construction, flooring.
	Duka	<i>Tapirira marchandi</i>	Interior construction, furniture, and plywood.
	Dukuria	<i>Sacoglottis cydonioides</i>	Heavy construction.
	Fukadi	<i>Terminalia amazonia</i>	House framing, framing, constructional work, railway sleepers and plywood.
	Inyak	<i>Antonia ovata</i>	Interior work, furniture and boxes.
	Limonaballi	<i>Chrysophyllum pomiferum</i>	Heavy construction and fuel.
	Suradan	<i>Hyeronima alchorneoides</i>	Boat-framing, railway sleepers, heavy construction, truck building, wheel spokes, furniture, plywood and gun stocks.
	White Cedar	<i>Tabebuia insignis</i>	Paddles, shovel handles, and interior work, packing cases and cheap furniture.
	Futui	<i>Jacaranda copaia</i>	Coffins, matches, concrete shuttering and interior construction.
	Halchiballi	<i>Pera schomburgkiana</i>	Fuel and utility plywood.
	Haiariballi	<i>Alexa imperatricis</i>	Interior construction, packing cases and plywood.
	Huruasa	<i>Abarema jupunba</i>	Fuel and plywood.
	Iteballi	<i>Vochysia schomburgkii</i>	Carpentry and furniture.
	Kakaralli	<i>Eschweilera alata</i>	Piling, house framing, mine lagging, posts and sleepers.
	Kauta	<i>Licania laxiflora</i>	Light gauge railway sleepers, roof shingles, mine timbering, fuel and charcoal.

### State Forest Production by Counties 2022

Product	Category	UoM	BER	DEM	ESS	Grand Total
Logs	Special Category Log	m3	19,480.37	74,215.40	95,610.06	189,305.83
	Class 1 Log		111,012.52	170,993.93	35,868.97	317,875.42
	Class 2 Log		32,710.90	81,947.73	57,281.35	171,939.98
	Class 3 Log		31,174.70	57,302.78	16,947.89	105,425.37
<b>Logs Total</b>		<b>m3</b>	<b>194,378.49</b>	<b>384,459.84</b>	<b>205,708.27</b>	<b>784,546.60</b>
Primary Lumber	Special Category Lumber	m3	362.83	11,196.29	5,869.58	17,428.70
	Class 1 Lumber		2,180.76	17,488.50	7,272.40	26,941.66
	Class 2 Lumber		1,842.92	9,830.86	3,303.08	14,976.86
	Class 3 Lumber		658.62	3,372.10	2,879.12	6,909.84
<b>Primary Lumber Total</b>		<b>m3</b>	<b>5,045.13</b>	<b>41,887.75</b>	<b>19,324.18</b>	<b>66,257.06</b>
Roundwood	Piles	m3	4,188.10	33,477.19	7,202.82	44,868.10
	Poles		1,166.05	8,536.99	594.15	10,297.20
	Posts		165.21	3.65	93.88	262.74
	Spars		0.91	19.41	-	20.32
<b>Roundwood Total</b>		<b>m3</b>	<b>5,520.28</b>	<b>42,037.23</b>	<b>7,890.85</b>	<b>55,448.36</b>
Splitwood	Paling Staves	m3	6.51	-	9.22	15.72
	Shingles		-	-	-	-
<b>Splitwood Total</b>		<b>m3</b>	<b>6.51</b>	<b>-</b>	<b>9.22</b>	<b>15.72</b>
Fuelwood	Charcoal	m3	1,551.32	2,849.97	-	4,401.29
	Firewood		-	16,424.13	116.00	16,540.13
<b>Fuelwood Total</b>		<b>m3</b>	<b>1,551.32</b>	<b>19,274.10</b>	<b>116.00</b>	<b>20,941.42</b>
Wattles	Wattles	pcs	16,225.00	1,312,263.00	19,994.00	1,348,482.00
<b>Wattles Total</b>		<b>pcs</b>	<b>16,225.00</b>	<b>1,312,263.00</b>	<b>19,994.00</b>	<b>1,348,482.00</b>
Manicole Palm Heart	Manicole Palm	pcs	-	-	8,802,754.00	8,802,754.00
<b>Manicole Palm Heart Total</b>		<b>pcs</b>	<b>-</b>	<b>-</b>	<b>8,802,754.00</b>	<b>8,802,754.00</b>

### State Forest Production by Stations in Demerara 2022

Product	Category	UoM	Georgetown	Ituni	Linden	Soesdyke	Grand Total
	Special Category Log	m3	8,624.89	604.40	13,151.08	32,794.42	55,174.79
Logs	Class 1 Log		14,369.81	9,762.01	90,053.04	51,891.09	166,075.95
	Class 2 Log		5,988.71	6,158.81	34,047.07	35,691.22	81,885.81
	Class 3 Log		5,714.56	2,293.79	36,974.62	11,547.19	56,530.15
<b>Logs Total</b>		<b>m3</b>	<b>34,697.97</b>	<b>18,819.01</b>	<b>174,225.81</b>	<b>131,923.92</b>	<b>359,666.70</b>
	Special Category Lumber	m3	2,111.28	364.37	1,607.78	7,106.85	11,190.28
Primary Lumber	Class 1 Lumber		4,133.50	10,086.02	740.73	2,528.25	17,488.50
	Class 2 Lumber		1,150.56	910.45	432.97	7,336.88	9,830.86
	Class 3 Lumber		1,647.40	225.42	210.63	1,288.65	3,372.10
<b>Primary Lumber Total</b>		<b>m3</b>	<b>9,042.74</b>	<b>11,586.26</b>	<b>2,992.11</b>	<b>18,260.63</b>	<b>41,881.74</b>
Roundwood	Piles	m3	4,551.54	844.36	4,338.55	23,653.28	33,387.73
	Poles		1,825.08	-	584.62	6,127.29	8,536.99
	Posts					3.65	3.65
	Spars					19.41	19.41
<b>Roundwood Total</b>		<b>m3</b>	<b>6,376.62</b>	<b>844.36</b>	<b>4,923.17</b>	<b>29,803.62</b>	<b>41,947.77</b>
Fuelwood	Charcoal	m3	16.59		124.27	2,709.11	2,849.97
	Firewood		482.08		434.97	15,507.08	16,424.13
<b>Fuelwood Total</b>		<b>m3</b>	<b>498.67</b>	<b>-</b>	<b>559.24</b>	<b>18,216.19</b>	<b>19,274.10</b>
Wattles	Wattles	pcs	10,315.00		16,098.00	1,285,850.00	1,312,263.00
<b>Wattles Total</b>		<b>pcs</b>	<b>10,315.00</b>	<b>-</b>	<b>16,098.00</b>	<b>1,285,850.00</b>	<b>1,312,263.00</b>

### State Forest Production by Stations in Berbice 2022

Product	Category	UoM	Bamboo Landing	Canje	Hururu	Kwakwani	Orealla	Springlands	Unamco Road	Grand Total
Logs	Special Category Log	m3	7,089.27	1,619.78	66.74	7,165.04	24.36	432.09	3,063.09	19,480.37
	Class 1 Log		3,213.86	16,469.55	3,206.81	58,376.69	719.01	16,244.64	12,781.96	111,012.52
	Class 2 Log		260.27	4,275.81	1,323.40	16,295.71	272.30	8,305.20	1,978.21	32,710.90
	Class 3 Log		555.70	7,184.80	452.89	12,893.14	104.26	5,813.99	4,169.92	31,174.70
<b>Logs Total</b>		<b>m3</b>	<b>11,119.10</b>	<b>29,549.94</b>	<b>5,049.84</b>	<b>94,730.58</b>	<b>1,119.93</b>	<b>30,795.92</b>	<b>22,013.18</b>	<b>194,378.49</b>
Primary Lumber	Special Category Lumber	m3		214.75		94.00	21.04	33.04		362.83
	Class 1 Lumber			1,208.13	9.45	343.78	305.47	313.93		2,180.76
	Class 2 Lumber			144.15	2.51	98.81	197.02	1,400.43		1,842.92
	Class 3 Lumber			421.53	10.90	135.20	52.42	38.57		658.62
<b>Primary Lumber Total</b>		<b>m3</b>	<b>-</b>	<b>1,988.56</b>	<b>22.86</b>	<b>671.79</b>	<b>575.95</b>	<b>1,785.97</b>	<b>-</b>	<b>5,045.13</b>
Roundwood	Piles	m3	1,533.30	307.68	129.06	1,940.72	-	-	277.35	4,188.10
	Poles		-	0.48	81.50	1,074.31	9.76	-	-	1,166.05
	Posts						153.77	11.45		165.21
	Spars			0.41			0.51			0.91
<b>Roundwood Total</b>		<b>m3</b>	<b>1,533.30</b>	<b>308.56</b>	<b>210.55</b>	<b>3,015.03</b>	<b>164.04</b>	<b>11.45</b>	<b>277.35</b>	<b>5,520.28</b>
Splitwood	Paling Staves	m3					1.13	5.38		6.51
	Shingles									
<b>Splitwood total</b>		<b>m3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.13</b>	<b>5.38</b>	<b>-</b>	<b>6.51</b>
Fuelwood	Charcoal	m3		1,551.32						1,551.32
	Firewood									
<b>Fuelwood Total</b>		<b>m3</b>	<b>-</b>	<b>1,551.32</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1,551.32</b>
Wattles	Wattles	pcs		14,125.00				2,100.00		16,225.00
<b>Wattles Total</b>		<b>pcs</b>	<b>-</b>	<b>14,125.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,100.00</b>	<b>-</b>	<b>16,225.00</b>

**State Forest Production by Stations in Essequibo**

Product	Category	UoM	Annai	Arapicao	Bartica	Buckhall	Capoey	Charity	Drumhill	Iteballi	Kwebanna	Lethem	Mabaruma	Manaka	Moruca	Parika	Port Kaituma	Supenaam	Winiperu	Grand Total	
Logs	Special Category Log	m3			1,450.29	5,401.79	12.59	549.26		4,802.54	27.27		474.56	18,790.94	50.10	40,710.97	2,320.76	1,808.27	19,210.72	95,610.06	
	Class 1 Log			127.89	1,339.21	3,029.06	0.62	1,773.34		733.78	56.80	50.00	1,596.00	1,667.66	112.53	19,929.99	2,115.66	732.37	2,604.06	35,868.97	
	Class 2 Log			665.00	1,009.74	10,334.58	1.42	1,534.07		70.92		92.62	440.44	1,626.61		13,268.14	21,897.96	6,023.65	316.20	57,281.35	
	Class 3 Log			48.63	600.50	1,362.76		396.97		801.74	8.11		595.99	217.10		9,786.30	2,015.68	513.54	600.57	16,947.89	
<b>Logs Total</b>		<b>m3</b>	<b>-</b>	<b>841.52</b>	<b>4,399.74</b>	<b>20,128.19</b>	<b>14.63</b>	<b>4,263.64</b>	<b>-</b>	<b>6,408.98</b>	<b>92.18</b>	<b>142.62</b>	<b>3,106.99</b>	<b>22,302.31</b>	<b>162.63</b>	<b>83,695.40</b>	<b>28,350.06</b>	<b>9,077.83</b>	<b>22,731.55</b>	<b>205,708.27</b>	
Primary Lumber	Special Category Lumber	m3	368.01	50.75	181.88		93.34	543.55		912.40	92.44	196.90	272.65		29.55	397.23	72.14	2,658.74		5,869.58	
	Class 1 Lumber		591.39	1,235.53	173.38		42.23	1,035.20		661.69	330.55	254.60	634.03		56.15	417.10	25.67	1,814.88		7,272.40	
	Class 2 Lumber		29.79	108.47	163.31		72.31	131.36		93.96	4.93	35.81	128.56			925.54		1,609.04		3,303.08	
	Class 3 Lumber		437.37	145.19	65.52		73.55	259.68		118.45	20.27	340.34	270.32			341.74	3.77	802.92		2,879.12	
<b>Primary Lumber Total</b>		<b>m3</b>	<b>1,426.56</b>	<b>1,539.94</b>	<b>584.09</b>	<b>-</b>	<b>281.43</b>	<b>1,969.79</b>	<b>-</b>	<b>1,786.50</b>	<b>448.19</b>	<b>827.65</b>	<b>1,305.56</b>	<b>-</b>	<b>85.70</b>	<b>2,081.61</b>	<b>101.58</b>	<b>6,885.58</b>	<b>-</b>	<b>19,324.18</b>	
Splitwood	Paling Staves	m3					8.39	0.83												9.22	
	Shingles																				
<b>Splitwood Total</b>		<b>m3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8.39</b>	<b>0.83</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9.22</b>	
Roundwood	Piles	m3	-	-	411.55	447.95	-	291.03	-	25.10	-	156.47	47.13	-	-	4,553.40	-	1,270.19	-	7,202.82	
	Poles		4.75	-	14.16	7.73	-	329.67	-	23.16	-	-	-	-	-	17.85	-	196.84	-	594.15	
	Posts		79.91					1.99								11.97					93.88
	Spars																				
<b>Roundwood Total</b>		<b>m3</b>	<b>84.66</b>	<b>-</b>	<b>425.70</b>	<b>455.68</b>	<b>-</b>	<b>622.70</b>	<b>-</b>	<b>48.25</b>	<b>-</b>	<b>156.47</b>	<b>47.13</b>	<b>-</b>	<b>-</b>	<b>4,583.22</b>	<b>-</b>	<b>1,467.04</b>	<b>-</b>	<b>7,890.85</b>	
Fuelwood	Firewood	m3						39.87								76.13				116.00	
	Charcoal																				
<b>Fuelwood Total</b>		<b>m3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>39.87</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>76.13</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>116.00</b>	
Wattles	Wattles	pcs			2,212.00											17,782.00				19,994.00	
<b>Wattles Total</b>		<b>pcs</b>	<b>-</b>	<b>-</b>	<b>2,212.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>17,782.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>19,994.00</b>	
Manicole Palm Heart	Manicole Palm	pcs							8,802,754.00											8,802,754.00	
<b>Manicole Palm Heart Total</b>		<b>pcs</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8,802,754.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>8,802,754.00</b>	