

*“Strengthening the performance of the Wood Processing Sector in Guyana, through Building Local Capacity and Enhancing National Systems that promote forest product trade and sustainable utilization of forest resources”*



## **WORKSHOP REPORT**

December 2015

<b>Project Title:</b>	Strengthening the performance of the Wood Processing Sector in Guyana, through Building Local Capacity and Enhancing National Systems that promote forest product trade and sustainable utilization of forest resources
<b>Project Number:</b>	PD 687/13 Rev.1 (I)
<b>Host Government:</b>	Government of Guyana
<b>Implementing Agency:</b>	Guyana Forestry Commission (GFC)
<b>Starting Date:</b>	16 <sup>th</sup> June 2014
<b>Duration (months):</b>	24 months
<b>Project Cost (US\$):</b>	US\$ 348,693

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## **1. INTRODUCTION**

The joint initiative of the GFC and the ITTO under the project *“Strengthening the performance of the Wood Processing Sector in Guyana, through Building Local Capacity and Enhancing National Systems that promote forest product trade and sustainable utilization of forest resources”* has been implemented and several project activities have been realised.

The development objective of this project is to: *To contribute to the enhancement of the efficiency and competitiveness of Guyana's wood processing sector as a means for sustainable utilization of timber resources and national development.*

The specific objective of the project is: *to strengthen the performance of the wood processing sector through building local capacity and enhancing national system that will promote and facilitate efficient trade and utilization of lumber for local and export markets.*

To meet the objectives of the project several activities were identified for execution under the project. One of the project activities is to review Guyana's Timber Grading Rules to align to market conditions, produce a revised more grading rules. The output is expected to be a more user friendly guideline addressing current needs of the sector and with the aim of standardising grading compatible with international standards. The review will include research on various other standards from UK, Canada, Brazil and

The hope is that these changes made to enhance Guyana's grading rules will address some of the challenges faced when grading lumber not only for the export market but also for the domestic market.

In order to review the grading rules several workshops/ consultation sessions were held within each of the three counties (Essequibo, Demerara and Berbice) in Guyana from the 7<sup>th</sup> to the 15<sup>th</sup> October 2015.

## 2. WORKSHOP OVERVIEW

Under the ITTO project for “*Strengthening the performance of the Wood Processing Sector in Guyana, through Building Local Capacity and Enhancing National Systems that promote forest product trade and sustainable utilization of forest resources*” workshop were held in the following locations to capture a wide cross section of stakeholders and to raise awareness of developments with respect to standards and grading for quality timber.

Country	Location	Venue	Date
Berbice	Upper Corentyne	Tej Mohall Building Skeldon	7 <sup>th</sup> October 2015
	Lower Corentyne/New Amsterdam	Church View Hotel New Amsterdam	
Demerara	Georgetown	<b>GFC Multiplex Building Kingston</b>	8 <sup>th</sup> October 2015
Essequibo	Anna Regina	Conference room Arabian Atlantic Hotel	9 <sup>th</sup> October 2015

The workshops were conducted to address standardisation and products quality in the forestry sector at the processing level. The target audience was the construction sector (Contractors, Architects, etc.) and value added sector (Furniture, Windows, Doors, spindles, etc.). One of the main outcomes of these workshops is expected to be the review of the Timber Grading Rules and establishing quality/ dimensional standards for lumber to be used in the construction sector (Aligned to building code). The main output is expected a list of recommendations to be considered in refining the current Grading Rules to better suit the needs of the sector while meeting international standards for timber not only at the international level but at the local level.

### 2.1 Presentations

The workshops were conducted by Mr. Deonarine Ramsaroop, Wood Technologist and consultant under the project. A presentation was made presenting the historical trends in the forestry sector with respect to timber utilisation, grading rules, quality and standards; the current status of timber grading and the developmental needs of the sector to move forward. The workshop was organised into a presentation and discussion segment to allow for feedback and a more interactive sessions. Among the topics discussed several were highlighted to be of interest and were discussed:

### **HISTORY OF MAJOR EVENTS OF WOOD PROCESSING**

- 1669 the species Letter-wood was the first local species harvested on a commercial scale
- 1770, the trade in (hewn) Greenheart was first recorded
- 1800+: Guyana produced matches (the Willems clan?)
- 1958: Guyana produced particle board (Willems clan et al?)
- 1969: GoG and UNDP set up a huge wood processing complex at the Forestry Department, Kingston, Georgetown
- 1977: Guyana National Service produced toothpicks at Konawaruk
- 1980: the Kisooson Group of Companies established a small ply-board mill
- In 1983, Nagasar Sawh Limited established a mill in Bartica for producing Wallaba shingles
- 1992: Barama Company Limited set up a ply-board mill
- 2010: Barama Company Limited set up a veneer plant at Buck Hall.

### **EXAMINATION OF THE CURRENT GRADING RULES**

- GR01: Sawn Baulk (Prime and select)
- GR 02: Hewn Squares (prime)
- GR03: Round Timber piles (Prime, Select and Sound)
- GR04: Sawn timber for building and construction (Prime, Select, Sound, Merchantable)
- GR05: Sawn timber for dressing and furniture manufacturing (Prime, standard, Factory-suited, Mill-run)
- GR06: Dressed products from seasoned timber (Prime and standard)
- GRO7: Railway sleepers/crossings (Select and standard)
- GR08: Round transmission Poles (Prime and Select)
- GRO9: Telegraph and Electric power cross-arms
- GR10: Fencing posts ( Select)
- GR11: Shingles (Prime)
- GR12: Fence staves ( Prime)
- GR 13: Hard wood logs (First peeler Quality, Superior sawmill quality, standard sawmill quality, fair sawmill quality, small sawmill quality and Low quality)

### **BUILDERS PERCEPTION ON WOOD**

- Always wants long length of wood
- predominantly uses Kabukalli and Greenheart
- Used imported pine lumber
- Always looking for the easiest and fastest way to construct a building and forget completely about quality.
- Not interested in the moisture content of the wood
- Cheap wood
- Always looking for cut-backs

### **COMMON SPECIES USED IN CONSTRUCTION AND FURNITURE INDUSTRY LESSER USED SPECIES**

#### **Construction**

- Kabukalli
- Green heart
- Shibedan
- Tatabu

#### **Furniture**

- Crab-wood
- Locust
- Silverballi
- Simarupa
- Determa

#### **PREPARATION OF WOOD TO BE USED IN BOTH CONSTRUCTION AND FURNITURE INDUSTRIES**

- Selection of the right species to be used
- Grade the lumber using your simple grading rules
- Used simple drying methods to reduce the M.C down to a satisfactory level
- Try as best as possible to use the right tools and must be sharp to make your end products

#### **NEED FOR DRY WOOD**

(a) *To allow the timber to **shrink before** it is used as a product. Thus, timber movement during service is reduced to the minimum*

(b) Much of the shrinkage that occurs when wood dries to its in-use MC will occur in the kiln rather than in the manufactured product. Drying therefore, eliminates or reduces to a minimal level, a major source of frustration that a consumer has with wood shrinkage and swelling

(c) There is an increase in most strength properties of timber after it has been dried

(d ) Dry wood (below 22% MC) will not decay, mold, mildew, or stain. At lower MC levels, there is not enough moisture for the fungi that cause decay, mildew, and so on to grow

(f) Dry wood has little or no likelihood of developing new cracks, checks, or splits.

(g) Dry wood is much lighter in weight than wet wood. For many species, dry wood is nearly half the weight of wet wood. As an example, an "18-wheeler" can haul about 7500 board foot (bf) of Greenheart without exceeding the load limits, but can haul 12,500 bf of dried lumber

(h) Dry wood is nearly twice as strong and twice as stiff as green wood

i) Dry wood (if it is not too dry) fastens better, glues better, and machines better than wet wood.

(j) Dry wood takes a better finish than wet wood.

## 2.2 Discussion segment

One of the key areas highlighted in the discussion segment was the examination of the current grading rules and suitability to current and future developments as well as industry needs. The discussion segment provided some healthy and informative view points from relevant active members of the sector.

**Date: 15<sup>th</sup> October 2015**  
**Venue: Georgetown**



- It is necessary first for persons in the local forest sector to understand first what the grading rules related to the USA, Canada, and Brazil or others are. If a comparison or a parallel grading rules is to be development for Guyana then this needs to be known.
- Defects need to be separated to address strength class or quality
- Sawmillers will need to be educated and systems put in place to ensure grading rules are met at the first point of processing.
- It was noted by John Willems, a pioneer in the industry, that the grading rules (the 6 original grading rules) were primarily developed for Greenheart. This however, was used to measure all subsequent species and further build upon.
- In order to meet standards buyers should indicate end use of timber so that timber can be provided for the required strength or quality and graded accordingly.
- One of the recommendations is not to remove tolerance from the grading rules
- Buyers inspection should be included in the grading rules
- GFC documentation procedures do not consider tolerances as it is perceived as sellers trying to misrepresent information.
- There is a confusion as to the correct course of action to take pertaining to reporting on the transshipment sheet, and which measurements are to be recorded (with or without tolerances)
- There is a clarification requested with respect to products. For example logs and piles the end use is used to determine the royalty rates. A pile is also a round log but its purpose is different.
- Irrespective of GFC grading rules and the framework upon which it is built the international community in many cases for high end construction will not consider timber unless there is some endorsement from well know institutions (TRADA, etc) attesting to its ability to function in the given capacity.
- Specific request is being made to review the minimum diameter (35cm) requirements for

Greenheart piles. Buyers request 28- 32 cm. GFC regulations requires larger trees to be cut and processed to size. This wastes raw material and increases production costs.

- GR12 – Fence Posts: should also include sawn posts. However, the GFC has suggested to place this in GR04
- GR13 – needs to be revamped
- Graders are requesting a review of the branding process/ requirements for small cuts of timber. For example. 1” pieces require 100% branding at both ends. This cause severe splits since the size of the hammer is larger than 1”. Branding on both sides also complicates packaging efficiency and effectiveness. It is being suggested that branding be reduced to 50% instead, since inspectors brand only 25% of the timber.

**Date: 18<sup>th</sup> October 2015**

**Venue: Essequibo**



*Comments and observations made by participants:*

There is generally a market preference for longer lengths of wood and a predominant use of Kabukalli and Greenheart.

Competition for local species is high from imported pine wood

Contractors are not concerned with quality and they are focus on cutting costs and compromise on quality. The GFC needs to find a way to deal with this in order to encourage use of LUS and other species or even local species in general as opposed to imported pine

*Recommendations:*

Make information on moisture content more easily understood and simpler to understand



Energy costs need to be reduced to encourage persons to buy dry wood instead of wet wood.

Duty free fuel to reduce cost of timber, making it more affordable to consumers

There should be more educational and awareness exercises to educate the general public on kiln dried lumber and the benefits there of.

The regulation that was set by the GFC should be done below the set size ( in relation to decking)

The grading rules need to be simplified and made easier to follow for buyers.

**Date: 7<sup>th</sup> October 2015**

**Venue: Berbice**

- **Taj Mahall Building Skeldon**
- **Church View Hotel New Amsterdam**



Under GR 07 – reference should be made to the local term “cross grains” which locally refers to interlocking grains.

GR12- known as pickets and staves

With respect to thickness. This should be standardised. For example boat building requires a specific thickness (e.g.1.5”) for its particular purpose. GR05 to include boat building requirements.

Monitoring of timber at the various levels of processing needs to be done systematically to avoid costs or damaged materials being passed off to the final consumer

Stacking and racking needs to be done

Sawmills should be required to stack and rack according to grades

Lathes and stickers to be included in the grading rules

Address the building codes to strengthen the position of standardisation of products

Training is needed to ensure operators can produce quality timber in precise measurements as requested.

Working in collaboration with training schools such as Guyana Technical Institute (GTI) can foster

partnerships as well as ensure that the right skill sets are provided for the industry.

The major issue is that sizes are not always uniform. There should be some system in place to ensure that all sawmillers and primary processors will produce at the same standard size, measurements, etc

Providing more accessibility to the grading rules to the general public and ensuring the hand book is also available to schools at all levels.