



**GLOBAL
FOREST
& TRADE
NETWORK**

A GUIDE TO LESSER KNOWN TROPICAL TIMBER SPECIES

JULY 2013



WWF/GFTN GUIDE TO LESSER KNOWN TROPICAL TIMBER SPECIES

BACKGROUND:

The heavy exploitation of a few commercially valuable timber species such as Mahogany (*Swietenia spp.*), Afrormosia (*Pericopsis elata*), Ramin (*Gonostylus spp.*), Meranti (*Shorea spp.*) and Rosewood (*Dalbergia spp.*), due in major part to the insatiable demand from consumer markets, has meant that many species are now threatened with extinction. This has led to many of the tropical forests being plundered for these highly prized species. Even in forests where there are good levels of forest management, there is a risk of a shift in species composition in natural forest stands. This over-exploitation can also dissuade many forest managers from obtaining Forest Stewardship Council (FSC) certification for their concessions, as many of these high value species are rarely available in sufficient quantity to cover all of the associated costs of certification. In order to make responsible forest management sustainable over the long term, markets must be developed for lesser known timber species (LKTS). Many forest concessions in the tropics can contain over 100 different tree species, yet only a handful are ever harvested commercially, due to their being no current market demand. Many of these species characteristics are simply not even known, and could perform just as well as many of the traditionally harvested species.

Take Brazilian Rosewood (*Dalbergia nigra*), as an example. This species is one of the most highly prized woods in the world, and due to its heavy exploitation, this species has been listed on CITES Appendix I[1] since 1992, and is now illegal to trade. However, in the Amazon basin, there is a species named Morado (*Machaerium scleroxylon*), which is also known as Bolivian Rosewood. This species has been suggested as a possible substitute for Brazilian Rosewood and, is also available as FSC certified.

The use of lesser known timber species is equally appropriate in civil and structural applications. For example, an Environment Agency project which required planking to refurbish beach outfalls at Pevensy Bay and Normans Bay, East Sussex, UK used predominantly FSC certified Eveuss (*Klainedoxa gabunensis*), a lesser known timber species, in preference to Ekki (*Lophira alata*) which is a common choice in marine construction. Eveuss was chosen because it was comparable in performance and colour to Ekki. Although it took longer to source, it resulted in a substantial cost saving of over USD \$60,000 so the project delivered both financial and sustainability benefits.

DISCLAIMER:

WWF considers FSC the minimum level for responsible forest management. When searching for alternatives to commercially well-known species that have decreased in availability, it is of the utmost importance to ensure oneself of the responsible nature in which that particular species was produced. FSC is the best mechanism to avoid overexploitation of any tree species.

This guide is valid as of July 2013, and the information contained within is subject to change. All companies featured in this guide have a valid FSC forest management and/or valid FSC chain of custody certificate as of July 2013. It is the readers' responsibility to ensure that a suppliers' FSC chain of custody certificate is valid. The guide cannot guarantee that a particular species referenced to in this guide will be available at the time of ordering.

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Harvesting and sourcing a wider portfolio of species, including LKTS would help relieve pressure on the traditionally harvested and heavily exploited species. The use of LKTS, in combination with both FSC certification, and access to high value export markets, could help make sustainable forest management a more viable alternative in many of WWF's priority places.

Markets are hard to change, as buyers from consumer countries often aren't willing to switch from purchasing the traditional species which they know do the job for the products that they are used in, and for which there is already a healthy market. To enable the market for LKTS, there is an urgent need to influence and educate buyers in consumer countries of the benefits of sourcing these alternative species.

WWF's Global Forest & Trade Network (GFTN) is positioned to help promote LKTS due to its 20-year history of successful engagement with all sectors of the supply chain, from forest producers to retailers; as well as its access to different markets around the world.

The benefits of using and promoting lesser known timber species:

- LKTS can often act as a substitute for more traditionally used species in terms of performance and aesthetics in most applications, but they are generally more cost effective because they are often abundant and underutilized.
- Many species available have rich, truly beautiful colours and textures, which can provide new design opportunities for many industry sectors.
- The use of lesser known species can alleviate pressure on the over-exploited timber species, and increase the economic viability of responsible forest management.

USING THE GUIDE

The guide has been developed to help inform buyers and decision makers about the availability and benefits of lesser known timber species. This guide lists the key mechanical and physical properties, and potential suitability of 75 timber species from Central and West Africa, Central and Latin America, and Southeast Asia. The species in this guide have been classed into two separate groups:

- 1) The first group is classified as **‘possible alternatives’** for more traditionally sourced timber species. Here you can search for suitable substitute species by selecting from the traditional species listed in the first column of the guide.
- 2) The second group is classified as **‘end uses’**. Here you can search for lesser known timber species by selecting a particular product group, such as flooring, veneer and garden furniture. The eight product categories featured here form the bulk of the most commonly traded exotic hardwood timber species that are bought and sold internationally. This selection rationale was based on the WWF/GFTN’s 20+ years of experience working with companies that are sourcing tropical hardwood species for use in the aforementioned product categories. Future updates of this guide may include additional product categories and species.

For both of the above groups, the guide shows the link between these lesser known timber species and their availability as being Forest Stewardship Council (FSC) certified from GFTN producer participants.

Please ensure the validity of the certificates by checking the organizations’ certification code and FSC license at <http://info.fsc.org/>

Click on possible alternatives to browse species by name or end use.

Click on any species name to review full information page on that species. At any time, click on the ‘home’ button to return to this page.

For more information about a particular species or region, contact the relevant GFTN manager in that country.

ACKNOWLEDGEMENTS:

This guide was developed by James Horne, Coordinator, WWF GFTN-UK. Special thanks goes to the WWF/GFTN colleagues who supported this guide, in particular Alfredo Rodriguez, Alejandra Zamora, Gijs Breukink, Huma Khan, Karen Mo, Maria Del-Carmen Carrera, Raul Dance, Sebastian Schrader, Norbert Sonne, Daniel Arancibia and Mustapha Seidu.


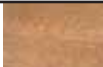
WWF/GFTN would like to thank [TheWoodExplorer.com](http://www.thewoodexplorer.com) for providing much of the technical information on the species identified in the guide and the images of the timber species; and the many companies and organizations that responded to requests for information, in particular the Environment Agency and TRADA.

POSSIBLE ALTERNATIVES...

END USES...

REFERENCES...

GFTN CONTACT INFORMATION...

ALTERNATIVE SPECIES			
AFRICAN CANARIUM (<i>Canarium schweinfurthii</i>)			
FEATURES		FSC CERTIFIED SUPPLIERS	
DISTRIBUTION	Central & West Africa	Grupos Distribuidores: Siam-wood Wima Donaka: Siam-wood IFO (Industrie Forestière de Ouesso): Logo, lumber and veneer	
HEARTWOOD COLOUR	Pinkish when freshly cut but darkens to light brown mahogany colour	CERTIFICATE CODE	
DENSITY Kg/m ³	496	FSC LICENSE #	
SILICA CONTENT	High	Grupos Distribuidores: SW-COC-004046 / SW-CW/PM-003387 / SW-COC-004213 / SW-FSC-COC-004202 Wima Donaka: IFO (Industrie Forestière de Ouesso): IFO-FSC-COC-003607 IFO-FSC-COC-003293	
MOVEMENT IN SERVICE	Moderate dimensional stability	HOME SPECIES	
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	670 when Dry	END USES	
DURABILITY	Durable, but soon after felling, logs should be treated chemically, extracted and converted to prevent insect attack	WWF/GFTN OFFICES GFTN-Cameroon: GFTN-Republic of Congo www.gftn-panda.org/about_gftn/contact/	
TEXTURE	Slightly coarse	HOME SPECIES END USES	
WORKING QUALITY	Easy		
OTHER POINTS OF INTEREST	Distilled African Canarium is as similar in appearance to African Mahogany (Khaya) as rosewood that it usually requires an expert to differentiate between the two. Also, a substitute for dense European timbers for plywood. The grain sometimes produces a very attractive striped figure on quarter-cut surfaces. Insects and fungi can affect untreated logs very quickly, affecting effects on cutting tools. To process the wood, tangential tipped cutters may be required.		
MORE INFORMATION	http://tropics.ctfd.ac.fsc.org/ARLE.pdf		

On all species information pages, click on the buttons lower right:

HOME - to return to this page

SPECIES - to return to the ALTERNATIVE SPECIES menu

END USES - to return to the END USES menu

POSSIBLE ALTERNATIVES

Click on any alternative species for more details. Click on end uses to view alternative species by end use.

USING THIS SPECIES...	OTHER NAMES	ALTERNATIVE SPECIES	OTHER NAMES	END USES...	
AFRICAN MAHOGANY <i>(Khaya ivorensis)</i>	ACAJOU BASSAM, ACAJOU BLANC, DEKE, ACAJOU	AFRICAN CANARIUM (<i>Canarium schweinfurthii</i>) ANDIROBA (<i>Carapa guianensis</i> , <i>Carapa procera</i>) SANTA MARIA (<i>Calophyllum brasiliense</i>)	AFRICAN ELEMI, MUPAFU CARAPA, CRAB WOOD JACAREÚBA, GUANANDI, LANDIM, OLANDIM, LANDI, OCURE		
AFRICAN WALNUT <i>(Lovoa trichilioides)</i>	CONGOWOOD, TIGERWOOD	ANDIROBA (<i>Carapa guianensis</i> , <i>Carapa procera</i>) SANTA MARIA (<i>Calophyllum brasiliense</i>)	CARAPA, CRAB WOOD JACAREÚBA, GUANANDI, LANDIM, OLANDIM, LANDI, OCURE		
AFRORMOSIA <i>(Pericopsis elata)</i>	AFRICAN TEAK	GUARIUBA (<i>Clarisia racemosa</i>) TIMBAUBA (<i>Enterolobium schomburgkii</i>)	MURURÉ, TULPAY, MATAPALO, OITY, CARACO BATIBATRA		
ASH <i>(Fraxinus spp.)</i>		AFRICAN CELTIS (<i>Celtis mildbraedii/ zenkeri</i>) LOTOFA (<i>Sterculia rhinopetala</i>)	NATAL STINKWOOD, NATAL ELM WAWABIMA		
BIRCH (<i>Betula spp.</i>)		GUARIUBA (<i>Clarisia racemosa</i>)	MURURÉ, TULPAY, MATAPALO, OITY, CARACO		
BOSSE (<i>Guarea spp.</i>)	DIAMBE, BLACK GUAREA	KANDA (<i>Beilschmiedia mannii</i>)	AKOK, BOGO		
BOXWOOD (<i>Buxus spp.</i>)	BOX	GUARIUBA (<i>Clarisia racemosa</i>)	MURURÉ, TULPAY, MATAPALO, OITY, CARACO		
BRAZILIAN MAHOGANY <i>(Swietenia macrophylla)</i>	BIG LEAF MAHOGANY	ANDIROBA (<i>Carapa guianensis</i> , <i>Carapa procera</i>) OBOTO (<i>Mammea africana</i>)	CARAPA, CRAB WOOD AFRICAN APPLE, BASTARD MAHOGANY		
BRAZILIAN ROSEWOOD <i>(Dalbergia nigra)</i>	BAHIA ROSEWOOD, JACARANDÁ DA BAHIA	OGEA (<i>Daniellia ogea</i>)	NSOU, FARO		
DARK & LIGHT RED MERANTI <i>(Shorea spp.)</i>	LAUAN, SERAYA	GERONGGANG (<i>Cratoxylon arborescens</i>)			

USING THIS SPECIES...	OTHER NAMES	ALTERNATIVE SPECIES	OTHER NAMES	END USES...	
EBONY (<i>Diospyros spp.</i>)	AZOBÉ, RED IRON WOOD	TIGER WOOD (<i>Astronium fraxinifolium & Astronium lecointei</i>)			 ENGINEERING & CONSTRUCTION
EKKI (<i>Lophira alata</i>)	AZOBÉ, RED IRON WOOD	ANGELIM VERMELHO (<i>Dinizia excelsa</i>) CUBIUBA (<i>Goupia glabra</i>) EVEUSS (<i>Klainedoxa gabunensis</i>) OKAN (<i>Cylicodiscus gabunensis</i>) PEQUIA (<i>Caryocar villosum</i>) TALI (<i>Erythrophleum suaveolens</i>)	KABUKALLI BOKOKA, ADUM BOKOKA, ADUM PELI, MBELE		 WINDOW FRAMES
GREENHEART (<i>Ocotea rodiaei</i>)		ANGELIM VERMELHO (<i>Dinizia excelsa</i>) CUBIUBA (<i>Goupia glabra</i>) EVEUSS (<i>Klainedoxa gabunensis</i>) OKAN (<i>Cylicodiscus gabunensis</i>) TALI (<i>Erythrophleum suaveolens</i>)	KABUKALLI BOKOKA, ADUM PELI, MBELE		 DECKING
IPE (<i>Tabebuia serratifolia</i>)	BRAZILIAN WALNUT, LAPACHO	CURUPAY (<i>Anadenanthera colubrina</i>) ANGELIM VERMELHO (<i>Dinizia excelsa</i>)	VILCA, HUILCO, WILCO, CEBIL		 VENEER
IROKO (<i>Chlorophora excelsa</i>)		GUARIUBA (<i>Clarisia racemosa</i>) LATI (<i>Amphimas pterocarpoides</i>) MANDIOQUEIRA (<i>Qualea paraensis</i>) TATAJUBA (<i>Bagassa guianensis</i>) TIMBAUBA (<i>Enterolobium schomburgkii</i>)	MURURÉ, TULPAY, MATAPALO, OITY, CARACO AMAPARANA, BAGASSE, TARAIKO HARINO, MENUDITO, BOUGOU BATI BATRA, ACACIA FRANC, JEBIO, HEVIO		 GARDEN FURNITURE
MAHOGANY (<i>Swietenia spp.</i>)		BLACK CABBAGE BARK (<i>Lonchocarpus castilloi</i>) KANDA (<i>Beilschmiedia mannii</i>) SANTA MARIA (<i>Calophyllum brasiliense</i>)	MACARATO, TIMBO AKOK, BOGO JACARÉÚBA, GUANANDI, LANDIM, OLANDIM, LANDI, OCURE		 RAILWAY SLEEPERS
MAPLE (<i>Acer spp.</i>)		GUARIUBA (<i>Clarisia racemosa</i>)	MURURÉ, TULPAY, MATAPALO, OITY, CARACO		 FLOORING

USING THIS SPECIES...	OTHER NAMES	ALTERNATIVE SPECIES	OTHER NAMES	END USES...	
MERANTI <i>(Shorea spp.)</i>	LAUAN, SERAYA (LIGHT RED MERANTI)	CURUPAY (<i>Anadenanthera colubrina</i>) JATOBA (<i>Erismia uncinatum</i>)	VILCA, HUILCO, WILCO, CEBIL VILCA, HUILCO, WILCO, CEBIL		
OAK <i>(Quercus spp.)</i>		AFRICAN CELTIS (<i>Celtis mildbraedii/ zenkeri</i>) BERANGAN (<i>Castanopsis acuminatissima</i>) NARGUSTA (<i>Terminalia amazonica</i>)	NATAL WHITE STINKWOOD, NATAL ELM WHITE OAK, NEW GUINEA OAK WHITE OLIVE		ENGINEERING & CONSTRUCTION
OKOUME <i>(Aucoumea klaineana)</i>	ANGOUMA, GABOON	AFRICAN CANARIUM (<i>Canarium schweinfurthii</i>) KONDROTI (<i>Bombax brevicuspe</i>)	AFRICAN ELEMI, MUPAFU		WINDOW FRAMES
ROSEWOOD <i>(Dalbergia spp.)</i>		MORADO (<i>Machaerium scleroxylon</i>) TIGER WOOD (<i>Astronium fraxinifolium & Astronium lecontei</i>)	BOLIVIAN ROSEWOOD, CAVIUNA, JACARANDA PARDO, PAU FERRO		DECKING
SAPELE <i>(Entandrophragma cylindricum)</i>	SAPELLI, ABOUDIKRO	ANDIROBA (<i>Carapa guianensis, Carapa procera</i>) SANTA MARIA (<i>Calophyllum brasiliense</i>)	CARAPA, CRAB WOOD JACAREÚBA, GUANANDI, LANDIM, OLANDIM, LANDI, OCURE		VENEER
TEAK <i>(Tectona grandis)</i>		BLACK CABBAGE BARK (<i>Lonchocarpus castilloi</i>) CHEREK (<i>Peronema canescens</i>) TIMBAUBA (<i>Enterolobium schomburgkii</i>)	MACARATO, TIMBO SUNGKAI		GARDEN FURNITURE
SIPO <i>(Entandrophragma utile)</i>	UTILE	ANDIROBA (<i>Carapa guianensis, Carapa procera</i>)	CARAPA, CRAB WOOD		INTERIOR FURNITURE
WALNUT <i>(Juglans spp.)</i>		KANDA (<i>Beilschmiedia mannii</i>) TCHITOLA (<i>Oxystigma oxyphyllum</i>)	AKOK, BOGO AKWAKWA, KITOLA, EMOLA		RAILWAY SLEEPERS
WENGE <i>(Millettia laurentii)</i>	AFRICAN ELEMI, MUPAFU	SAPUPIRA (<i>Diplotropis purpurea</i>)	TATABU, ZWARTE KABBES, SUCUPIRA		FLOORING
WHITE ASH <i>(Fraxinus americana)</i>		JAGUA (<i>Genipa americana</i>) SANTA MARIA (<i>Calophyllum brasiliense</i>)	JACAREÚBA, GUANANDI, LANDIM, OLANDIM, LANDI, OCURE		

ALTERNATIVE SPECIES

AFRICAN CANARIUM (*Canarium schweinfurthii*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Pinkish when freshly cut but darkens to light brown mahogany colour
DENSITY Kg/m ³	496
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	670 when Dry
DURABILITY	Durable, but soon after felling, logs should be treated chemically, extracted and converted to prevent insect attack
TEXTURE	Slightly coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Stained African Canarium is so similar in appearance to African Mahogany (<i>Khaya ivorensis</i>) that it usually requires an expert to differentiate between the two. Also, a substitute for Okoume (<i>Aucoumea klaineana</i>) for plywood. The grain sometimes produces a very attractive stripe figure on quarter-cut surfaces. Interlocked grain and silica content have very high blunting effects on cutting tools. To process the wood, tungsten tipped cutters may be required.
MORE INFORMATION	http://tropix.cirad.fr/africa/AIELE.pdf

FSC CERTIFIED SUPPLIERS

Groupe Décolvenaere:

Sawn-wood

Wijma Douala:

Sawn-wood

CERTIFICATE CODE

Groupe Décolvenaere:

SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

Wijma Douala:

BV-COC-070607

FSC LICENSE

Groupe Décolvenaere:

FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

Wijma Douala:

FSC-C013971

WWF/GFTN OFFICES

GFTN-Cameroon

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ALTERNATIVE SPECIES

ANDIROBA (*Carapa guianensis*, *Carapa procera*)



DECKING



WINDOW
FRAMES



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Reddish brown
DENSITY Kg/m ³	641
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1220 when Dry
DURABILITY	Moderately Durable
TEXTURE	Medium to Coarse
WORKING QUALITY	Medium
OTHER POINTS OF INTEREST	The wood is so similar to Honduras mahogany (<i>Swietenia macrophylla</i>) that they are often confused with each other. The wood exhibits an attractive stripe and parallel, irregular rays when quarter sawn. Weathering characteristics are comparable to those of the Mahoganies. Bending strength of air-dried wood is similar to that of Teak (<i>Tectona grandis</i>), which is considered to be strong. Strength properties, especially stiffness, are rated as higher than those of Honduras mahogany. It resists denting and marring about as well as white oak (<i>Quercus alba</i>) or Birch (<i>Betula spp.</i>). Good regeneration, and plantation potential.
MORE INFORMATION	http://tropix.cirad.fr/america/ANDIROBA.pdf

FSC CERTIFIED SUPPLIERS

Orsa Florestal:

Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

Green Gold Forestry:

Sawnwood & logs

McCorry & Co Ltd:

International Timber and Wood Trading: - Panel products, sawn wood, machined solid wood

CERTIFICATE CODE

Orsa Florestal:

SCS-COC-000638

Green Gold Forestry:

SW-FM/COC-005476 / CU-COC-814849

McCorry & Co Ltd:

BV-COC-023370

FSC LICENSE

Orsa Florestal:

FSC-C002761

Green Gold Forestry:

FSC-C104253 / FSC-C103688

McCorry & Co Ltd:

FSC-C111751

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ALTERNATIVE SPECIES

SANTA MARIA (*Calophyllum brasiliense*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



DECKING



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Pink light brown with thin darker veins
DENSITY Kg/m ³	641
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Moderate dimensional stability can be attained after seasoning
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1150 when dry
DURABILITY	Moderately Durable
TEXTURE	Medium
WORKING QUALITY	Fairly Easy
OTHER POINTS OF INTEREST	Bending strength in air-dry condition (about 12 percent moisture content) is high - comparable to Teak (<i>Tectona grandis</i>). Maximum crushing strength, or compression strength parallel to grain, is high. Some familiar species with high crushing strength parallel to grain include Hard maple (<i>Acer saccharum</i>), Teak, and White oak (<i>Quercus alba</i>). Hardness is rated as medium. It resists denting and marring about as well as White oak or Birch (<i>Betula spp.</i>). An abundant tree species in Riparian environments for its preference for colonizing high water saturation soils.
MORE INFORMATION	http://tropix.cirad.fr/america/SANTA_MARIA.pdf

FSC CERTIFIED SUPPLIERS

Green Gold Forestry:

Solid wood (sawn, chipped, peeled)

AIDER:

Community Forest (logs and sawn wood)

Von Humboldt Forest:

Logs & sawn wood

CERTIFICATE CODE

Green Gold Forestry:

SW-FM/COC-005476 / CU-COC-814849

AIDER:

SCS-FM/COC-004384

Von Humboldt Forest:

SW-FM/COC-005713

FSC LICENSE

Green Gold Forestry:

FSC-C104253 / FSC-C103688

AIDER:

FSC-C008155

Von Humboldt Forest:

FSC-C106640

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GFTN-Bolivia; GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

GUARIUBA (*Clarisia racemosa*)



FLOORING



DECKING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellow becoming lustrous brown upon contact with light
DENSITY Kg/m ³	610
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	784 when dry
DURABILITY	Durable
TEXTURE	Medium
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The timber is similar in properties to the African species, Afrormosia (<i>Pericopsis elata</i>). The bending strength qualities of this species in air-dry condition is very high, far superior to those of Mahogany (<i>Swietenia spp.</i>).
MORE INFORMATION	http://tropix.cirad.fr/america/GUARIUBA.pdf

FSC CERTIFIED SUPPLIERS

DEKMA:
Decking, fencing, tiles, outdoor furniture

Mabet:
Doors, flooring & decking

Consorcio Forestal Amazonico:
Sawn wood, Kiln dried- 2, 3, 4W- 5 upL- 6 to 16 feet

CERTIFICATE CODE

DEKMA:
RA-COC-001658

Mabet:
SW-COC-001057

Consorcio Forestal Amazonico:
CU-FM/COC-813373

FSC LICENSE

DEKMA:
FSC-C010118

Mabet:
FSC-C015707

Consorcio Forestal Amazonico:
FSC-C005646

WWF/GFTN OFFICES

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ALTERNATIVE SPECIES

TIMBAUBA (*Enterolobium schomburgkii*)



INTERIOR
FURNITURE



FLOORING



GARDEN
FURNITURE

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Seasoned heartwood is light yellowish brown sometimes with darker streaks
DENSITY Kg/m ³	913
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2330 when dry
DURABILITY	Very Durable
TEXTURE	Coarse
WORKING QUALITY	Fairly Difficult
OTHER POINTS OF INTEREST	General finishing qualities are rated as good. The timber is similar in properties to the African species <i>Afrormosia (Pericopsis elata)</i> .
MORE INFORMATION	http://tropix.cirad.fr/america/BATIBATRA.pdf http://www.fpl.fs.fed.us/documnts/TechSheets/Chudnoff/TropAmerican/htmlDocs_tropamerican/Enterolobiumschomburgkii.html

FSC CERTIFIED SUPPLIERS

Mabet:
Manufacturer of wood products, such as doors, flooring and furniture (indoor and outdoor)

CERTIFICATE CODE

Mabet:
SW-COC-001057

FSC LICENSE

Mabet:
FSC-Co15707

WWF/GFTN OFFICES

GFTN-Bolivia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

AFRICAN CELTIS (*Celtis mildbraedii/ zenkeri*)



FEATURES	
DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Freshly-cut wood yellowish-white to light beige in colour, but it turns to greyish beige upon exposure
DENSITY Kg/m ³	737
SILICA CONTENT	Low
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1530 when dry
DURABILITY	Non-Durable
TEXTURE	Medium/Fine
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Strength properties are somewhat higher than those of European beech (<i>Fagus sylvatica</i>). The wood is highly vulnerable to fungal staining, and requires immediate preventive measures after sawing. Properties can change with heat, and can take a good stain. It is very similar to Oak (<i>Quercus spp.</i>). It is also considered to be a good flooring timber that wears smoothly. Have a good regeneration pattern
MORE INFORMATION	http://tropix.cirad.fr/africa/CELTIS_D_AFRIQUE.pdf

FSC CERTIFIED SUPPLIERS

Groupe Décolvenaere:
Sawn-wood

CERTIFICATE CODE

Groupe Décolvenaere:
SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

FSC LICENSE

Groupe Décolvenaere:
FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

LOTOFA (WAWABIMA) (*Sterculia rhinopetala*)



FEATURES	
DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Reddish brown
DENSITY Kg/m ³	785
SILICA CONTENT	High
MOVEMENT IN SERVICE	Large movement in service
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1810 when Dry
DURABILITY	Very Durable
TEXTURE	Coarse
WORKING QUALITY	Fairly Difficult
OTHER POINTS OF INTEREST	Substitute for Ash (<i>Fraxinus spp.</i>) for applications where toughness is of prime importance, such as in tool handles. General finishing qualities are rated as good. The timber is reported to be peeled for plywood manufacture, core-stock and facings for blockboards. It is also sliced into highly decorative veneers for panelling and interior decoration. Described as a heavy and strong timber with very high toughness strength, which makes it suitable for construction applications where natural resistance to decay is not critical.
MORE INFORMATION	http://tropix.cirad.fr/africa/LOTOFA.pdf

FSC CERTIFIED SUPPLIERS

Groupe Décolvenaere:
Sawn-wood

CERTIFICATE CODE

Groupe Décolvenaere:
SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

FSC LICENSE

Groupe Décolvenaere:
FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

KANDA (*Beilschmiedia mannii*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Pink brown to red brown
DENSITY Kg/m ³	673
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1160 when Dry
DURABILITY	Very Durable
TEXTURE	Medium/ Coarse
WORKING QUALITY	Medium
OTHER POINTS OF INTEREST	Kanda responds well to specially tipped tools in machining operations since it tends to dull ordinary tools severely. Kanda is far superior in strength to either Teak (<i>Tectona grandis</i>) or Hard maple (<i>Acer saccharum</i>).
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Beilschmiedia%20mannii

FSC CERTIFIED SUPPLIERS

Wijma Douala:
Sawn-wood

CERTIFICATE CODE

Wijma Douala:
BV-COC-070607

FSC LICENSE

Wijma Douala:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

OBOTO (*Mammea africana*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Initially red or red brown, but matures into dark reddish-brown. The colour is reported to be comparable to that of true mahogany, and is attractively marked or flecked with gum ducts.
DENSITY Kg/m ³	769
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Dimensional changes in response to fluctuations in atmospheric conditions are reported to range from medium to high.
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1710 when Dry
DURABILITY	Durable
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	General finishing qualities are rated as satisfactory. Maximum crushing strength, or compression parallel to grain in the air-dry condition, is in the very high range. It is generally superior to African Mahogany (<i>Khaya ivorensis</i>) in strength properties, especially bending strength. Hardness is rated as medium. It resists denting and marring about as well as White oak (<i>Quercus alba</i>) or Birch (<i>Betula spp.</i>). It is a very heavy wood, with high density.
MORE INFORMATION	http://www.woodworkerssource.com/show_properties.php?wood=Mammea%20africana

FSC CERTIFIED SUPPLIERS

Wijma Douala:
Sawn-wood

CERTIFICATE CODE

Wijma Douala:
BV-COC-070607

FSC LICENSE

Wijma Douala:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

OGEA (*Daniellia ogea*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Light golden brown or pale pinkish-brown to reddish brown, sometimes marked with darker streaks
DENSITY Kg/m ³	464
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability & exhibits medium movement after manufacture
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	710 when Dry
DURABILITY	Moderate
TEXTURE	Coarse
WORKING QUALITY	Moderately Difficult
OTHER POINTS OF INTEREST	The wood has medium density, low bending strength, very low stiffness and resistance to shock loads, and medium crushing strength. It is a suitable substitute for Rosewood (<i>Dalbergia spp.</i>) in solid sections. A decorative veneer can be produced from selected logs.
MORE INFORMATION	http://tropix.cirad.fr/africa/FARO.pdf

FSC CERTIFIED SUPPLIERS

Groupe Décolvenaere:

Sawn-wood

Wijma Douala:

sawn wood

CERTIFICATE CODE

Groupe Décolvenaere:

SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

Wijma Douala:

BV-COC-070607

FSC LICENSE

Groupe Décolvenaere:

FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

Wijma Douala:

FSC-C013971

WWF/GFTN OFFICES

GFTN-Cameroon

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ALTERNATIVE SPECIES

GERONGGANG (*Cratoxylon arborescens*)



GARDEN FURNITURE



DECKING



INTERIOR FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	South-East Asia
HEARTWOOD COLOUR	Initially dark pink or light brick-red. Exposure darkens the wood, but the red colour is reported to remain.
DENSITY Kg/m ³	350-610
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	420 for green material
DURABILITY	Moderately Durable - treatment required
TEXTURE	Moderately fine and even
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	For most practical purposes Geronggang is reported to be very similar to Dark red Meranti (<i>Shorea spp.</i>) in colour and to Light red Meranti (<i>Shorea spp.</i>) in strength properties. Absence of resin canals is reported to give Geronggang some advantage over Meranti in applications where the presence of resin canals is found to be objectionable. The wood has medium density, and is low in weight. Max harvest from Laos forests for next 5 years: 2,916m ³ CW & 350 m ³ FSC.
MORE INFORMATION	http://www.fpl.fs.fed.us/documnts/TechSheets/Chudnoff/SEAsian_Oceanic/htmlDocs_SEAsian/Cratoxylonarborescens.html

FSC CERTIFIED SUPPLIERS

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT): Sawn timber, furniture, doors

Sari Bumi Kusuma:
Plywood, Sawn wood, Decking & Mouldings

PT. Suka Jaya Makmur:
Logs

CERTIFICATE CODE

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT): SCS-FM/COC-00108N

Sari Bumi Kusuma:
RA-FM/COC-002645 / RA-COC-001617

PT. Suka Jaya Makmur:
CU-FM/COC-812699 / CU-COC-812699

FSC LICENSE

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT): FSC-Co10333

Sari Bumi Kusuma:
FSC-Co21870 / FSC-C001956

PT. Suka Jaya Makmur:
FSC-C102305 / FSC-C105706

WWF/GFTN OFFICES

GFTN-Malaysia; GFTN-Indonesia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

TIGER WOOD (*Astronium fraxinifolium* & *Astronium lecointei*) *Muiracatiara*



DECKING



INTERIOR FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	One of the most beautiful tropical woods. Brown red (russet brown, orange brown or reddish brown when fresh, changing upon exposure to brown, red, or dark reddish brown), with streaks
DENSITY Kg/m ³	961
SILICA CONTENT	High
MOVEMENT IN SERVICE	Dimensionally stable after seasoning
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1850 when Dry
DURABILITY	Durable
TEXTURE	Fine to Medium
WORKING QUALITY	Fairly Difficult
OTHER POINTS OF INTEREST	General finishing qualities are rated as good. A lesser known species from Central and South America. Strong, suited primarily for construction and secondarily for fine furniture.
MORE INFORMATION	http://tropix.cirad.fr/america/MUIRACATIARA.pdf

FSC CERTIFIED SUPPLIERS

Mabet:
Manufacturer of wood products, such as doors, flooring and furniture (indoor and outdoor)

CERTIFICATE CODE

Mabet:
SW-COC-001057

FSC LICENSE

Mabet:
FSC-Co15707

WWF/GFTN OFFICES

GFTN-Bolivia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

ANGELIM VERMELHO (*Dinizia excelsa*)



FEATURES	
DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Light reddish-brown or red brown, occasionally with faint streaks
DENSITY Kg/m ³	849
SILICA CONTENT	High
MOVEMENT IN SERVICE	Not known
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	3220 when dry
DURABILITY	Very Durable
TEXTURE	Medium
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	The wood is very durable and is reported to have very good resistance to attack by decay fungi and termites. Its resistance to dry-wood insects attack is rated as good.
MORE INFORMATION	Further information on this species can be found at the following report published in 2011 by the Environment Agency, TRADA et al: Assessment of Lesser Known Hardwood Timber Species for Use in Marine and Freshwater Construction

FSC CERTIFIED SUPPLIERS

Orsa Florestal:
Logs, Lumber
(S2S, S4S - export, boards, beams, squares and other cuts - domestic)

CERTIFICATE CODE

Orsa Florestal:
SCS-COC-000638

FSC LICENSE

Orsa Florestal:
FSC-C002761

WWF/GFTN OFFICES

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

CUBIUBA (*Goupia glabra*)



FEATURES	
DISTRIBUTION	South America
HEARTWOOD COLOUR	Light reddish-brown or brown beige to orange brown and darkens slightly upon exposure.
DENSITY Kg/m ³	833
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent Stability - Small Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1840 when Dry
DURABILITY	Very Durable
TEXTURE	Medium coarse to coarse
WORKING QUALITY	Moderately easy
OTHER POINTS OF INTEREST	<p>The timber is highly favoured as an all purpose wood in the Guianas. It is reported to compare favourably with oak, except in shock resistance, splitting, compression, and cleavage. The wood is reported to be slightly resistant to decay, or moderately durable. Its resistance to brown-rot fungi, white-rot fungi, termites and dry wood insects is rated as good. It has very little resistance to attack by marine borers.</p> <p>Resistance to Impregnation The heartwood is reported to be very resistant to preservative treatment. The sapwood is moderately resistant.</p>
MORE INFORMATION	Further information on this species can be found at the following report published in 2011 by the Environment Agency, TRADA et al: Assessment of Lesser Known Hardwood Timber Species for Use in Marine and Freshwater Construction

FSC CERTIFIED SUPPLIERS

Orsa Florestal:
Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

CERTIFICATE CODE

Orsa Florestal:
SCS-COC-000638

FSC LICENSE

Orsa Florestal:
FSC-C002761

WWF/GFTN OFFICES

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

EVEUSS (*Klainedoxa gabunensis*)



FEATURES	
DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Ages to a dark brown colour with black veining
DENSITY Kg/m ³	945
SILICA CONTENT	High
MOVEMENT IN SERVICE	The material is reported to be dimensionally unstable, and tends to move significantly after manufacture.
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2550 when Dry
DURABILITY	Very Durable
TEXTURE	Fine
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The timber is reported to be resilient and also very resistant to wear, which makes it suitable for flooring.
MORE INFORMATION	Further information on this species can be found at the following report published in 2011 by the Environment Agency, TRADA et al: Assessment of Lesser Known Hardwood Timber Species for Use in Marine and Freshwater Construction

FSC CERTIFIED SUPPLIERS

Wijma:
Sawn wood

Pallisco:
Logs, Sawn wood, Kiln dried, Planed wood, flooring

Groupe Décolvenaere:
Sawn-wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

Pallisco:
BV-FM/COC-832214

Groupe Décolvenaere:
SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

FSC LICENSE

Wijma:
FSC-C013971

Pallisco:
FSC-C021687

Groupe Décolvenaere:
FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

OKAN (*Cylicodiscus gabunensis*)



FEATURES	
DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Yellow brown becomes red brown upon contact with air
DENSITY Kg/m ³	945
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2780 when Dry
DURABILITY	Very Durable
TEXTURE	Medium - Has a waxy appearance and feel
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	The timber has excellent weathering qualities, and has high resistance to wear. Although the wood is considered to be highly suitable for flooring, it is very difficult to machine. Strength properties are mid-way between those of European beech (<i>Fagus sylvatica</i>) and Greenheart (<i>Ocotea rodiaei</i>).
MORE INFORMATION	Further information on this species can be found at the following report published in 2011 by the Environment Agency, TRADA et al: Assessment of Lesser Known Hardwood Timber Species for Use in Marine and Freshwater Construction

FSC CERTIFIED SUPPLIERS

Wijma:
Sawn wood

Pallisco:
Logs, Sawn wood, Kiln dried, Planed wood, flooring

Groupe Décolvenaere:
Sawn-wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

Pallisco:
BV-FM/COC-832214

Groupe Décolvenaere:
SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

FSC LICENSE

Wijma:
FSC-C013971

Pallisco:
FSC-C021687

Groupe Décolvenaere:
FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

PEQUIA (*Caryocar villosum*)



GARDEN FURNITURE



DECKING



FLOORING



RAILWAY SLEEPERS

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellowish to light greyish brown in colour
DENSITY Kg/m ³	865
SILICA CONTENT	
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1720 when Dry
DURABILITY	Very durable
TEXTURE	Medium to coarse
WORKING QUALITY	Moderately Difficult
OTHER POINTS OF INTEREST	Species in the genus <i>Caryocar</i> are reported to be widespread throughout most of the Amazonia. The bending strength qualities of this species in the air-dry condition is very high, far superior to those of Mahogany. Compression strength parallel to grain in the air-dry condition is high. Teak, White oak, and Hard maple have high crushing strength. It is hard - harder than Teak, and does not mar or dent easily. The weight is very high. The wood is very dense.
MORE INFORMATION	http://www.fpl.fs.fed.us/documnts/TechSheets/Chudnoff/TropAmerican/html_files/caryoc1new.html

FSC CERTIFIED SUPPLIERS

Orsa Florestal:

Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

Consorcio Forestal Amazonico:

Sawn wood, Kiln dried- 2, 3, 4W- 5 upL- 6 to 16 feet

CERTIFICATE CODE

Orsa Florestal:

SCS-COC-000638

Consorcio Forestal Amazonico:

CU-FM/COC-813373

FSC LICENSE

Orsa Florestal:

FSC-C002761

Consorcio Forestal Amazonico:

FSC-C005646

WWF/GFTN OFFICES

GFTN-Peru

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

TALI (*Erythrophleum suaveolens*)



FEATURES	
DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Brown to red to yellow, partly with streaks
DENSITY Kg/m ³	961
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2920 when Dry
DURABILITY	Very Durable
TEXTURE	Medium/ Fine
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	General finishing qualities are rated as good. The species is considerably stronger than White oak (<i>Quercus alba</i>) or Teak (<i>Tectona grandis</i>). It has exceptionally high bending strength qualities when air-dried. Maximum crushing strength, or compression parallel to grain, is exceptionally high. The species has very high density.
MORE INFORMATION	Further information on this species can be found at the following report published in 2011 by the Environment Agency, TRADA et al: Assessment of Lesser Known Hardwood Timber Species for Use in Marine and Freshwater Construction

FSC CERTIFIED SUPPLIERS

Groupe Décolvenaere:
Sawn-wood

Pallisco-CIFM :
Logs, sawn wood, Flooring

Wijma:
sawn wood

CERTIFICATE CODE

Groupe Décolvenaere:
SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

Wijma:
BV-COC-070607

Pallisco:
BV-FM/COC-832214

FSC LICENSE

Groupe Décolvenaere:
FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-Co41197

Wijma:
FSC-Co13971

Pallisco:
FSC-Co21687

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

CURUPAY (*Anadenanthera colubrina*)



DECKING



GARDEN
FURNITURE



FLOORING



RAILWAY
SLEEPERS



VENEER

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Darkens to a reddish brown
DENSITY Kg/m ³	993
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1990 when dry
DURABILITY	Very Durable
TEXTURE	Fine
WORKING QUALITY	Fairly Difficult
OTHER POINTS OF INTEREST	A very attractive wood, Curupay is primarily used in flooring. Harder and more dense than Ipe (<i>Tabebuia serratifolia</i>). General finishing qualities are rated as good. Has uses that compete with Lauan (<i>Shorea spp.</i>) and Ipe (<i>Tabebuia serratifolia</i>).
MORE INFORMATION	http://www.wood-database.com/lumber-identification/hardwoods/cebil/

FSC CERTIFIED SUPPLIERS

Biomaderas:
Forest products distributor / importer

CERTIFICATE CODE

Biomaderas:
SW-COC-005452

FSC LICENSE

Biomaderas:
FSC-C105956

WWF/GFTN OFFICES

GFTN-Colombia, Ecuador, Panama & Venezuela, Northern Amazon and Chocó Darién, GFTN-Germany
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES



LATI (*Amphimas pterocarpoides*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Initially orange and darkens to orange-brown upon exposure.
DENSITY Kg/m ³	753
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Excellent Stability - Small Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1300 when dry
DURABILITY	Moderately durable to non-durable
TEXTURE	Medium/ Coarse
WORKING QUALITY	Medium
OTHER POINTS OF INTEREST	Has an attractive appearance, quite similar to that of Eyong (<i>Eribroma oblonga</i>). General finishing qualities are rated as good.
MORE INFORMATION	http://tropix.cirad.fr/africa/LATI.pdf

FSC CERTIFIED SUPPLIERS

Wijma:
Sawn wood

Pallisco:
Logs, Sawn wood, Kiln dried, Planed wood, flooring

Groupe Décolvenaere:
Sawn-wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

Pallisco:
BV-FM/COC-832214

Groupe Décolvenaere:
SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

FSC LICENSE

Wijma:
FSC-C013971

Pallisco:
FSC-C021687

Groupe Décolvenaere:
FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

MANDIOQUEIRA (*Qualea paraensis*)



GARDEN FURNITURE



DECKING



FLOORING



VENEER

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Pinkish brown to reddish brown
DENSITY Kg/m ³	705
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1320 when Dry
DURABILITY	Non-Durable
TEXTURE	Medium to Coarse
WORKING QUALITY	Fairly Difficult
OTHER POINTS OF INTEREST	Heartwood resistance to decay in Qualea timbers is variable, but the material is generally unsuitable for use under prolonged moist conditions unless it is protectively coated. Similar to the African species Iroko (<i>Chlorophora excelsa</i>) in mechanical and physical properties. Is a hard and durable wood. It is suitable for decorative veneer, flooring, turnery, decking, garden furniture, exterior construction and railway sleepers, it has good machining and finishing qualities.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Qualea%20paraensis

FSC CERTIFIED SUPPLIERS

DEKMA:

Decking, fencing, tiles, outdoor furniture

Orsa Florestal:

Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

Consorcio Forestal Amazonico:

Sawn wood, Kiln dried- 2, 3, 4W- 5 upL- 6 to 16 feet

CERTIFICATE CODE

DEKMA:

RA-COC-001658

Orsa Florestal:

SCS-COC-000638

Consorcio Forestal Amazonico:

CU-FM/COC-813373

FSC LICENSE

DEKMA:

FSC-C010118

Orsa Florestal:

FSC-C002761

Consorcio Forestal Amazonico:

FSC-C005646

WWF/GFTN OFFICES

GFTN-Peru; GFTN-Bolivia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

TATAJUBA (*Bagassa guianensis*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



DECKING



FLOORING



VENEER

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellow turning yellow brown to dark brown with age
DENSITY Kg/m ³	785
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1730 when Dry
DURABILITY	Durable
TEXTURE	Medium
WORKING QUALITY	Fairly Easy
OTHER POINTS OF INTEREST	Substitute in plywood production for Light virola (<i>Virola surinamensis</i>), Ekop (<i>Tetraberlinia tubmaniana</i> , <i>T. bifoliolata</i>), Brown terminalia (<i>Terminalia brassii</i>), Kondroti (<i>Bombax brevicuspe</i>). The species is considerably stronger than White oak (<i>Quercus alba</i>) or Teak (<i>Tectona grandis</i>). It is hard - harder than Teak. General finishing qualities are rated as good. In green condition, it is superior in properties to White Oak. Mechanical properties in the dry condition are comparable to Shagbark hickory (<i>Carya ovata</i>).
MORE INFORMATION	http://tropix.cirad.fr/america/TATAJUBA.pdf

FSC CERTIFIED SUPPLIERS

Orsa Florestal:

Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

Biomaderas:

Forest products distributor / importer

CERTIFICATE CODE

Orsa Florestal:

SCS-COC-000638

Biomaderas:

SW-COC-005452

FSC LICENSE

Orsa Florestal:

FSC-C002761

Biomaderas:

FSC-C105956

WWF/GFTN OFFICES

GFTN-Colombia, Ecuador, Panama & Venezuela, Northern Amazon and Chocó Darién, GFTN-Germany
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BLACK CABBAGE BARK (*Lonchocarpus castilloi*)



GARDEN FURNITURE



FLOORING

FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	The heartwood is yellowish brown to dark reddish brown in colour, usually with stripes of a lighter colour.
DENSITY Kg/m ³	897
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Moderate dimensional stability & exhibits medium movement after manufacture
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2700 when Dry
DURABILITY	Durable - rated as very resistant to fungus and insect attack
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	General finishing qualities are rated as good. Black Cabbage Bark is a potential substitute for applications where a dark-reddish wood, such as Mahogany (<i>Swietenia spp.</i>) is required. The wood takes finishes well, except polyurethane. Finishing is reported to highlight irregularities in the grain to make the normally dull wood rather attractive.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Lonchocarpus%20castilloi

FSC CERTIFIED SUPPLIERS

Biomaderas:
Forest products distributor / importer

CERTIFICATE CODE

Biomaderas:
SW-COC-005452

FSC LICENSE

Biomaderas:
FSC-C105956

WWF/GFTN OFFICES

GFTN-Colombia, Ecuador, Panama & Venezuela, Northern Amazon and Chocó Darién, GFTN-Germany
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

JATOBA (*Erisma uncinatum*)



INTERIOR
FURNITURE



WINDOW
FRAMES



VENEER

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Pale pink brown to purplish brown or light reddish-brown
DENSITY Kg/m ³	592
SILICA CONTENT	High
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	940 when Dry
DURABILITY	Moderately Durable
TEXTURE	Medium to coarse
WORKING QUALITY	Good
OTHER POINTS OF INTEREST	The timber is reported to be similar in properties to Meranti (<i>Shorea spp.</i>)
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Erisma%20uncinatum

FSC CERTIFIED SUPPLIERS

Orsa Florestal:
Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

CERTIFICATE CODE

Orsa Florestal:
SCS-COC-000638

FSC LICENSE

Orsa Florestal:
FSC-C002761

WWF/GFTN OFFICES

GFTN-Bolivia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BERANGAN (*Castanopsis acuminatissima*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	South-East Asia
HEARTWOOD COLOUR	Reddish brown to pale brown
DENSITY Kg/m ³	512
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	880 when Dry
DURABILITY	Very Durable
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	This species is a true oak, and is closely related to species in the genus <i>Quercus</i> of the northern hemisphere. The wood resists denting and marring about as well as White oak (<i>Quercus alba</i>) or birch (<i>Betula spp.</i>) and has a high density. Max harvest from Laos forests for next 5 years: 32,916 m ³ CW & 350 m ³ FSC.
MORE INFORMATION	http://www.woodworkerssource.com/show_properties.php?wood=Castanopsis%20acuminatissima

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:
Logs

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
Sawn timber, furniture, door

CERTIFICATE CODE

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
SCS-FM/COC-00108N

FSC LICENSE

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
FSC-C010333

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

NARGUSTA (*Terminalia amazonica*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Variegated yellow-brown to olive-brown colour, occasionally with clear reddish stripes or streaks
DENSITY Kg/m ³	769
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1,610 to 2,100 when dry
DURABILITY	Durable
TEXTURE	Medium
WORKING QUALITY	Moderate
OTHER POINTS OF INTEREST	Nargusta is reported to have medium strength properties in bending, crushing, and resistance to shock loads. It is low in stiffness. It is fairly hard, heavy, and has high density. Species should preferably be used under protection from the elements since it has little or no resistance to the destructive effects of the weather. General finishing qualities are rated as good. It is widespread throughout Central and northern South America.
MORE INFORMATION	http://www.woodworkerssource.com/show_properties.php?wood=Terminalia%20amazonica

FSC CERTIFIED SUPPLIERS

Green Gold Forestry:

Sawnwood & logs

Consorcio Forestal Amazónico:

Sawn wood

ECOLEGNO:

Decking, wood fences, tomato stick, sleepers

Von Humboldt Forest:

Logs & sawn wood

CERTIFICATE CODE

Green Gold Forestry:

SW-FM/COC-005476 / CU-COC-814849

Consorcio Forestal Amazónico:

CU-FM/COC-813373

ECOLEGNO:

SW-COC-004098 / SW-COC-004293 / SW-FM/COC-004583

Von Humboldt Forest:

SW-FM/COC-005713

FSC LICENSE

Green Gold Forestry:

FSC-C104253 / FSC-C103688

Consorcio Forestal Amazónico:

FSC-C005646

ECOLEGNO:

FSC-C009549 / FSC-C009549 / FSC-C017930

Von Humboldt Forest:

FSC-C106640

WWF/GFTN OFFICES

GFTN-Bolivia; GFTN-Peru

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

KONDROTI (*Bombax brevicuspe*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central, West & East Africa
HEARTWOOD COLOUR	Pale reddish brown in colour, sometimes with darker markings
DENSITY Kg/m ³	464
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Seasoned wood is reported to have good dimensional stability, and holds its place well in use.
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	390 when Dry
DURABILITY	Non-Durable
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The wood is highly absorbent, which compensates for its low durability since it is very easy to treat with preservatives.
MORE INFORMATION	http://tropix.cirad.fr/africa/KONDROTI.pdf

FSC CERTIFIED SUPPLIERS

Groupe Decolvenaere:
Sawn wood

CERTIFICATE CODE

Groupe Décolvenaere:
SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

FSC LICENSE

Groupe Décolvenaere:
FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

MORADO (*Machaerium scleroxylon*)



WINDOW
FRAMES



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Dark brown to tan with irregular black-purple stripes. Reportedly the wood has a strong resemblance to Brazilian Rosewood (<i>Dalbergia nigra</i>).
DENSITY Kg/m ³	850
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1780 when Dry
DURABILITY	Durable - as long as not in direct contact with ground
TEXTURE	Fine
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	A substitute Rosewood of great beauty, red brown to deep purple brown, fine textured and beautifully marked, showing much of the character of the best rosewoods and superb for cabinet work. Indeed it is also known as Bolivian Rosewood.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Machaerium%20scleroxylon

FSC CERTIFIED SUPPLIERS

DEKMA:
Decking, fencing, tiles, outdoor furniture

Mabet:
Doors, flooring & decking

CERTIFICATE CODE

DEKMA:
RA-COC-001658

Mabet:
SW-COC-001057

FSC LICENSE

DEKMA:
FSC-C010118

Mabet:
FSC-C015707

WWF/GFTN OFFICES

GFTN-Bolivia; GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

CHEREK (*Peronema canescens*)



GARDEN
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	South-East Asia
HEARTWOOD COLOUR	Light brown
DENSITY Kg/m ³	520-730
SILICA CONTENT	Low
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	Not Known
DURABILITY	Moderately Durable - treatment required
TEXTURE	Medium/Fine
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The timber very much resembles Teak (<i>Tectona grandis</i>), and as such, it is often referred to as “white teak” in the trade. This species is often used in reforestation programs in logging concessions.
MORE INFORMATION	Contact GFTN-Indonesia for more information on this species

FSC CERTIFIED SUPPLIERS

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

Sawn timber, furniture, door

Sari Bumi Kusuma:

Plywood, Sawn wood, Decking & Mouldings

CERTIFICATE CODE

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

SCS-FM/COC-00108N

Sari Bumi Kusuma:

RA-FM/COC-002645 / RA-COC-001617

FSC LICENSE

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

FSC-C010333

Sari Bumi Kusuma:

FSC-C021870 / FSC-C001956

WWF/GFTN OFFICES

GFTN-Malaysia; GFTN-Indonesia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

TCHITOLA (*Oxystigma oxyphyllum*)



INTERIOR
FURNITURE



FLOORING



VENEER

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Brownish-pink when freshly cut but matures to a reddish-brown colour upon exposure. Dark gum rings give the wood a very attractive appearance. Well-marked and striking black and pale yellow stripes are also present
DENSITY Kg/m ³	641
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1250 when Dry
DURABILITY	Moderately Durable
TEXTURE	Coarse to moderately Fine
WORKING QUALITY	Good
OTHER POINTS OF INTEREST	This species is relatively secure within its natural habitat in most areas in its range, including Congo. Very similar to Jatoba (<i>Hymanaea courbaril</i>). The timber works well in planing, turning, boring, moulding, mortising, routing, and other machining operations. The timber is reported to perform poorly when exposed to atmospheric conditions.
MORE INFORMATION	http://www.fpl.fs.fed.us/documnts/TechSheets/Chudnoff/African/htmlDocs_africa/Oxystigmaoxyphyllum.html

FSC CERTIFIED SUPPLIERS

Wijma:
Sawn wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

FSC LICENSE

Wijma:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

SUCUPIRA (*Diplotropis purpurea*)



WINDOW
FRAMES



INTERIOR
FURNITURE



GARDEN
FURNITURE



DECKING



FLOORING



VENEER

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	The heartwood is initially chocolate brown but it turns to a lighter brown colour after seasoning, occasionally greyish brown with fine lighter stripes. The timber often has a waxy appearance.
DENSITY Kg/m ³	881
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2140 when Dry
DURABILITY	Durable
TEXTURE	Coarse
WORKING QUALITY	Moderately Difficult
OTHER POINTS OF INTEREST	The wood is reported to be similar to the African species, Wenge (<i>Millettia laurentii</i>) in many mechanical properties. It is reported to be superior to hickory (<i>Carya spp.</i>) and White oak (<i>Quercus alba</i>). General finishing qualities are rated as good.
MORE INFORMATION	http://tropix.cirad.fr/america/SUCUPIRA_PRETA.pdf

FSC CERTIFIED SUPPLIERS

Orsa Florestal:

Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

Von Humboldt Forest:

Logs & sawn wood

Green Gold Forestry:

Solid wood (sawn, chipped, peeled)

CERTIFICATE CODE

Orsa Florestal:

SCS-COC-000638

Von Humboldt Forest:

SW-FM/COC-005713

Green Gold Forestry:

SW-FM/COC-005476 / CU-COC-814849

FSC LICENSE

Orsa Florestal:

FSC-C002761

Von Humboldt Forest:

FSC-C106640

Green Gold Forestry:

FSC-C104253 / FSC-C103688

WWF/GFTN OFFICES

GFTN-Peru

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

AGUANO MASHA (*Machaerium inundatum*)



FEATURES	
DISTRIBUTION	South America
HEARTWOOD COLOUR	Shades of brown, auburn and gold
DENSITY Kg/m ³	Dense
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Stable
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2200 when dry
DURABILITY	Durable
TEXTURE	Delicate
WORKING QUALITY	Good
OTHER POINTS OF INTEREST	Aguano masha is a heavy type of wood, showing mid-linear shrinkage and balanced volumetric shrinkage. Mechanical resistance is in the limit of medium and high ranks. This wood is moderately difficult to saw due to its high mechanical resistance. Good workability, appropriate finish for the production of wooden floor tiles for export. Drying process is stable, low risk of warping. Alburnum is prone to biological attack, pieces containing some of it must be preserved. Duramen is resistant, therefore pieces made entirely out of it needn't be preserved. Also known as Peruvian Teak.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

Von Humboldt Forest:
Logs & sawn wood

Consorcio Forestal Amazonico:
Sawn wood, Kiln dried- 2, 3, 4W- 5 upL- 6 to 16 feet

CERTIFICATE CODE

Von Humboldt Forest:
SW-FM/COC-005713

Consorcio Forestal Amazonico:
CU-FM/COC-813373

FSC LICENSE

Von Humboldt Forest:
FSC-C106640

Consorcio Forestal Amazonico:
FSC-C005646

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

AKOUAPO (*SACOGLOTTIS GABONENSIS*)



RAILWAY
SLEEPERS



GARDEN
FURNITURE



DECKING

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Purple-red or medium brown
DENSITY Kg/m ³	865
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Fairly stable
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2250 when dry
DURABILITY	Naturally resistant to decay, and is not susceptible to attack by insects
TEXTURE	Fine and Even
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The species is considerably stronger than White oak (<i>Quercus spp.</i>) or Teak (<i>Tectona grandis</i>). The timber has excellent weathering properties, and is well suited for use in exterior applications.
MORE INFORMATION	http://tropix.cirad.fr/africa/OZOUGA.pdf

FSC CERTIFIED SUPPLIERS

Wijma:
Sawn wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

FSC LICENSE

Wijma:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

AMARELINNO (*APULEIA LEIOCARPA/ MOLLARIS*)



FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Lemon yellow becoming light brown with age
DENSITY Kg/m ³	881
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1660 when dry
DURABILITY	Durable
TEXTURE	Fine/ Medium
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Naturally resistant to rot, decay and insect attack. Amarelinno is naturally scratch resistant which allows the surface to remain smooth for many years. Also has a Class A fire rating. A potential substitute for Wenge (<i>Millettia laurentii</i>).
MORE INFORMATION	http://tropix.cirad.fr/america/GARAPA.pdf

FSC CERTIFIED SUPPLIERS

- Green Gold Forestry:** Sawnwood & logs
- Maderera Rio Acre:** Sawnwood
- Marvesa:** Hardwood flooring & decking
- DEKMA:** Decking, fencing, tiles, outdoor furniture
- Von Humboldt Forest:** Logs & sawn wood

CERTIFICATE CODE

- Green Gold Forestry:** SW-FM/COC-005476 / CU-COC-814849
- Maderera Rio Acre:** SW-FM/COC-002176 / SW-COC-002189
- Marvesa:** SW-COC-004229
- DEKMA:** RA-COC-001658
- Von Humboldt Forest:** SW-FM/COC-005713

FSC LICENSE

- Green Gold Forestry:** FSC-C104253 / FSC-C103688
- Maderera Rio Acre:** FSC-C017050 / FSC-C003290
- Marvesa:** FSC-C010071
- DEKMA:** FSC-C010118
- Von Humboldt Forest:** FSC-C106640

WWF/GFTN OFFICES

GFTN-Bolivia; GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

ANGELIM RAJADO (*MARMAROXYLON RACEMOSUM*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



VENEER



DECKING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Light yellowish or orange brown, with conspicuous irregular purplish brown streaks, and striping
DENSITY Kg/m ³	977
SILICA CONTENT	Fair to Good
MOVEMENT IN SERVICE	Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	3350 when dry
DURABILITY	Durable
TEXTURE	Medium to Coarse
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	The species has exceptionally high bending strength properties in the air-dry condition (about 12% moisture content). It is far stronger than Hard maple (<i>Acer saccharum</i>), White oak (<i>Quercus alba</i>) or Teak (<i>Tectona grandis</i>). It is exceptionally heavy, weighing much more than White oak or Teak. The density of the wood is very high.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Marmaroxylon%20racemosum

FSC CERTIFIED SUPPLIERS

Orsa Florestal:
Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

CERTIFICATE CODE

Orsa Florestal:
SCS-COC-000638

FSC LICENSE

Orsa Florestal:
FSC-C002761

WWF/GFTN OFFICES

GFTN-Brazil
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BAYABOCHI (*CALYCOPHYLLUM SPRUCEANUM*)



FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Pale brown
DENSITY Kg/m ³	817
SILICA CONTENT	High
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2630 when dry
DURABILITY	Durable
TEXTURE	Fine
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	Hard wood, good natural stability. Does not present difficulties during sawing despite its hardness. A soft program kiln is required. Good finishing qualities. Difficult to work because of its hardness.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

Maderera Rio Yaveryja:
Logs & Sawnwood

Marvesa:
Sawnwood, flooring & decking

Maderera Rio Acre:
Sawnwood

Wood Tropical Forest:
Sawn wood

CERTIFICATE CODE

Maderera Rio Yaveryja:
RA-FM/COC-002175 / RA-COC-003503

Marvesa:
SW-COC-004229

Maderera Rio Acre:
SW-FM/COC-002176 / SW-COC-002189

Wood Tropical Forest:
SW-FM/COC-005803

FSC LICENSE

Maderera Rio Yaveryja:
FSC-C003999 / FSC-C017248

Marvesa:
FSC-C010071

Maderera Rio Acre:
FSC-C017050 / FSC-C003290

Wood Tropical Forest:
FSC-C106567

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BISHOPWOOD (*BISCHOFIA JAVANICA*)



FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Purple red brown in colour initially. The colour turns into a much deeper shade upon exposure.
DENSITY Kg/m ³	689
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1370 when dry
DURABILITY	Moderately durable
TEXTURE	Moderately fine to coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Bending strength in the air-dry condition (about 12 % moisture content) is very high. Strength in compression parallel to grain is in the high range. Other species in this range include Teak (<i>Tectona grandis</i>), White oak (<i>Quercus alba</i>) and Hard maple (<i>Acer saccharum</i>). It is fairly hard, resisting wear, denting, and marring fairly well.
MORE INFORMATION	http://www.woodworkerssource.com/show_properties.php?wood=Bischofia%20javanica

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:
Logs

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
Sawn timber, furniture, doors

CERTIFICATE CODE

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
SCS-FM/COC-00108N

FSC LICENSE

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

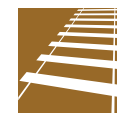
Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
FSC-C010333

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

CHIMICUA (*PSEUDOLMEDIA LAEVIS*)



RAILWAY
SLEEPERS



INTERIOR
FURNITURE



GARDEN
FURNITURE



DECKING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellow Brown
DENSITY Kg/m ³	689
SILICA CONTENT	High
MOVEMENT IN SERVICE	Good Stability Not found in literature
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1570 when dry
DURABILITY	Durable
TEXTURE	Intermediate
WORKING QUALITY	Moderately Difficult
OTHER POINTS OF INTEREST	Very abundant in Peru. A very dense and durable wood, suitable for heavy construction.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

Aserradero Espinoza: Wood, sawn or chipped lengthwise, sliced or peeled, of a thickness exceeding 6 mm; railway or tramway sleepers (cross-ties) of wood, not impregnated

Green Gold Forestry: Sawnwood & logs

Maderera Rio Acre: Sawnwood

Consorcio Forestal Amazonico: Sawn wood, Kiln dried- 2, 3, 4W-5 upL- 6 to 16 feet

Maderera Rio Yaverija: Sawn wood

Von Humboldt Forest: Logs & sawn wood

CERTIFICATE CODE

Aserradero Espinoza S.A.: RA-FM/COC-002327 / RA-COC-002385

Green Gold Forestry: SW-FM/COC-005476 / CU-COC-814849

Maderera Rio Acre: SW-FM/COC-002176 / SW-COC-002189

Consorcio Forestal Amazonico: CU-FM/COC-813373

Maderera Rio Yaverija: RA-FM/COC-002175 / RA-COC-003503

Von Humboldt Forest: SW-FM/COC-005713

FSC LICENSE

Aserradero Espinoza S.A.: FSC-C015683 / FSC-C019053

Green Gold Forestry: FSC-C104253 / FSC-C103688

Maderera Rio Acre: FSC-C017050 / FSC-C003290

Consorcio Forestal Amazonico: FSC-C005646

Maderera Rio Yaverija: FSC-C003999 / FSC-C017248

Von Humboldt Forest: FSC-C106567

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

KULIM (*SCORODOCARPUS BORNEENSIS*)



DECKING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Dark red brown to purple brown and darkens after prolonged exposure
DENSITY Kg/m ³	849
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1370 when dry
DURABILITY	Durable
TEXTURE	Moderately fine
WORKING QUALITY	Fairly Easy
OTHER POINTS OF INTEREST	This species is reported to occur throughout the lowland forests in Borneo, the Malay Peninsula, and Sumatra. It is described as occasionally gregarious. The bending strength of air-dried wood of the species is similar to that of Teak, which is considered to be strong. Compression strength parallel to grain in the air-dry condition is high. Teak, White oak, and Hard maple have high crushing strength. It is fairly hard, resisting wear, denting, and marring fairly well. The weight is very high. The wood is very dense.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Scorodocarpus%20borneensis

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:

Logs

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

Sawn timber, furniture, doors

CERTIFICATE CODE

Sabah Forestry Department:

SCS-FM/COC-00136N / SCS-FM/COC-00141N

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

SCS-FM/COC-00108N

FSC LICENSE

Sabah Forestry Department:

Sabah Forestry Department FMU 17A / Sabah Forestry Department-USM FMU

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

FSC-Co10333

WWF/GFTN OFFICES

GFTN-Malaysia

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

LIMBALI (*GILBERTIODENDRON DEWEVREI*)



FEATURES	
DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Cream white to yellow white, or greyish-white or light beige
DENSITY Kg/m ³	817
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1660 when dry
DURABILITY	Durable, treatment needed
TEXTURE	Coarse
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	General finishing qualities are rated as good.
MORE INFORMATION	http://tropix.cirad.fr/africa/LIMBALI.pdf

FSC CERTIFIED SUPPLIERS

Wijma:
sawn wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

FSC LICENSE

Wijma:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon; GFTN-Republic of Congo
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

PEQUIARANA (*CARYOCAR GLABRUM*)



RAILWAY
SLEEPERS



GARDEN
FURNITURE



DECKING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellowish to light greyish brown
DENSITY Kg/m ³	833
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1800 when dry
DURABILITY	Very Durable
TEXTURE	Medium to coarse
WORKING QUALITY	Fairly Easy
OTHER POINTS OF INTEREST	Species in the genus Caryocar are reported to be widespread throughout most of the Amazonia. The bending strength qualities of this species in the air-dry condition is very high, far superior to those of Mahogany. Compression strength parallel to grain in the air-dry condition is high. Teak, White oak, and Hard maple have high crushing strength. It is hard - harder than Teak, and does not mar or dent easily. The weight is very high. The wood is very dense.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Caryocar%20glabrum

FSC CERTIFIED SUPPLIERS

Orsa Florestal:

Logs, Lumber (S2S, S4S - export, boards, beams, squares and other cuts - domestic)

Conсорcio Forestal Amazonico:

Sawn wood, Kiln dried- 2, 3, 4W- 5 upL- 6 to 16 feet

Von Humboldt Forest:

Logs & sawn wood

CERTIFICATE CODE

Orsa Florestal:

SCS-COC-000638

Conсорcio Forestal Amazonico:

CU-FM/COC-813373

Von Humboldt Forest:

SW-FM/COC-005713

FSC LICENSE

Orsa Florestal:

FSC-C002761

Conсорcio Forestal Amazonico:

FSC-C005646

Von Humboldt Forest:

FSC-C106567

WWF/GFTN OFFICES

GFTN-Peru

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

QUILLOBORDON (*ASPIDOSPERMA VARGASII*)



RAILWAY
SLEEPERS



GARDEN
FURNITURE



DECKING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Dark yellow
DENSITY Kg/m ³	Dense
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Good Stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	High
DURABILITY	Very Durable
TEXTURE	Delicate
WORKING QUALITY	Moderately Easy
OTHER POINTS OF INTEREST	Can replace Honey Locust (<i>Gleditsia triacanthos</i>). And better resistant properties than White Oak (<i>Quercus alba</i>) and American Beech (<i>Fagus grandifolia</i>).
MORE INFORMATION	Contact GFTN Peru for more information on this species

FSC CERTIFIED SUPPLIERS

Consorcio Forestal Amazonico:
Sawn wood, Kiln dried- 2, 3, 4W- 5 upL- 6 to 16 feet

AIDER:
Community Forest (logs and sawn wood)

CERTIFICATE CODE

Consorcio Forestal Amazonico:
CU-FM/COC-813373

AIDER:
SCS-FM/COC-004384

FSC LICENSE

Consorcio Forestal Amazonico:
FSC-C005646

AIDER:
FSC-C008155

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

SOTO (*SCHINOPSIS BRASILIENSIS*)



FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Reddish to light brown
DENSITY Kg/m ³	1270
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Not found in literature
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	4800 when dry
DURABILITY	Durable, even in contact with soil
TEXTURE	Fine
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	Soto is the hardest, heaviest and most durable wood found in Bolivian forests.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

Mabet:
Manufacturer of wood products, such as doors, flooring and furniture (indoor and outdoor)

CIMAL:
Garden furniture

CERTIFICATE CODE

Mabet:
SW-COC-001057

CIMAL:
SW-FM/COC-000260 / SW-FM/COC-001652 / RA-COC-000676 / RA-COC-000034

FSC LICENSE

Mabet:
FSC-Co15707

CIMAL:
FSC-C002459 / FSC-Co11027 / FSC-Co23077 / FSC-Co03669

WWF/GFTN OFFICES

GFTN-Bolivia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

TAMARINDO (*DIALIUM GUIANENSE*)



RAILWAY
SLEEPERS



GARDEN
FURNITURE



VENEER



DECKING

FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Uniform brown or reddish brown, becoming darker upon exposure
DENSITY Kg/m ³	961
SILICA CONTENT	High
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	4000 when dry
DURABILITY	Very Durable
TEXTURE	Fine to Medium
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	In parts of its range the tree is very common on well-drained clay soils or sandy soils. General finishing qualities are rated as good. Specially tipped cutters are required to effectively saw or machine this wood.
MORE INFORMATION	http://www.fpl.fs.fed.us/documnts/TechSheets/Chudnoff/TropAmerican/htmlDocs_tropamerican/Dialiumguianense.html

FSC CERTIFIED SUPPLIERS

Von Humboldt Forest:
Logs & sawn wood

Green Gold Forestry:
Solid wood (sawn, chipped, peeled)

AIDER:
Community Forest (logs and sawn wood)

CERTIFICATE CODE

Green Gold Forestry:
SW-FM/COC-005476 / CU-COC-814849

Von Humboldt Forest:
SW-FM/COC-005713

AIDER:
SCS-FM/COC-004384

FSC LICENSE

Von Humboldt Forest:
FSC-C106640

Green Gold Forestry:
FSC-C104253 / FSC-C103688

AIDER:
FSC-C008155

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

TRAM MOC/JAMBUL (*SYZYGIUM CUMINII*)



RAILWAY
SLEEPERS



GARDEN
FURNITURE



VENEER



DECKING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Reddish-brown or purplish-brown, usually dull and without figure.
DENSITY Kg/m ³	Not known
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1423 when dry
DURABILITY	Durable
TEXTURE	Moderately fine to fine and even.
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The wood polishes well, transparent and stained coatings produce an attractive appearance.
MORE INFORMATION	http://www.ptm.org.vn/index.php?option=com_docman&task=doc_view&gid=43

FSC CERTIFIED SUPPLIERS

For more information on GFTN producer participants, please visit:

http://gftn.panda.org/about_gftn/current_participants/browse_by_country/

CERTIFICATE CODE

This species is also available as FSC certified from non-GFTN producer companies - for more information, please visit:

<http://info.fsc.org/>

FSC LICENSE

WWF/GFTN OFFICES

GFTN-Vietnam; GFTN-Laos
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

WALLABA (*EPERUA FALCATA*)



FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Red brown
DENSITY Kg/m ³	897
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1978 when green
DURABILITY	Very Durable
TEXTURE	Medium
WORKING QUALITY	Moderately difficult
OTHER POINTS OF INTEREST	The timber is similar in properties to Meranti (<i>Shorea spp.</i>)
MORE INFORMATION	http://tropix.cirad.fr/america/WALLABA.pdf

FSC CERTIFIED SUPPLIERS

Biomaderas:
Forest products distributor / importer

McCorry & Co Ltd:
International timber and wood trading: - Panel products, sawn wood, machined solid wood

CERTIFICATE CODE

Biomaderas:
SW-COC-005452

McCorry & Co Ltd:
BV-COC-023370

FSC LICENSE

Biomaderas:
FSC-C105956

McCorry & Co Ltd:
FSC-C111751

WWF/GFTN OFFICES

GFTN-Colombia, Ecuador, Panama & Venezuela, Northern Amazon and Chocó Darién
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

ZAPATERO (*HYERONIMA ALCHORNEOIDES*)



RAILWAY
SLEEPERS



INTERIOR
FURNITURE



VENEER



DECKING

FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Reddish-brown
DENSITY Kg/m ³	769
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1700 when dry
DURABILITY	Very Durable
TEXTURE	Medium to coarse
WORKING QUALITY	Moderately Easy
OTHER POINTS OF INTEREST	The wood is fairly easy to saw and work with hand tools, good to moderately good to plane, excellent for turning, mortising, boring, moulding and sanding but nailing the wood is very difficult without boring holes first. The finish is excellent when at least 3 layers of sealer is applied due to the big size of the pores. Because of the woods natural beauty it is recommendable to use a transparent finish. Uses: High quality furniture, veneers, and general carpentry. Well suited for indoor as well as outdoor use. Because of the weight of the wood it is recommendable to minimize dimensions or to make permanent furniture, e.g. cabinets.
MORE INFORMATION	http://www.nicaraguahardwoods.com/docs/Suradan_kilde_Cirad.pdf

FSC CERTIFIED SUPPLIERS

Biomaderas:
Forest products distributor / importer

CERTIFICATE CODE

Biomaderas:
SW-COC-005452

FSC LICENSE

Biomaderas:
FSC-C105956

WWF/GFTN OFFICES

GFTN-Peru, GFTN-Colombia, Equador, Panama & Venezuela,
Northern Amazon and Chocó Darién
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

ASIAN WALNUT (*TERMINALIA TORMENTOSA*)



INTERIOR
FURNITURE



FLOORING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Basically brown with streaks
DENSITY Kg/m ³	849
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Not found in literature
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2220 when dry
DURABILITY	Durable
TEXTURE	Medium to Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	General finishing qualities are rated as good.
MORE INFORMATION	http://www.fpl.fs.fed.us/documnts/TechSheets/Chudnoff/SEAsian_Oceanic/htmlDocs_SEAsian/Terminaliatomentosa.html

FSC CERTIFIED SUPPLIERS

For more information on GFTN producer participants, please visit:

http://gftn.panda.org/about_gftn/current_participants/browse_by_country/

CERTIFICATE CODE

This species is also available as FSC certified from non-GFTN producer companies - for more information, please visit:

<http://info.fsc.org/>

FSC LICENSE

WWF/GFTN OFFICES

GFTN-Vietnam; GFTN-Laos
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

AYAN (*DISTEMONANTHUS BENTHAMIANU*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



VENEER



FLOORING

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Freshly-cut heartwood darkens from golden-yellow to orange-brown upon exposure, sometimes with dark streaks.
DENSITY Kg/m ³	721
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1230 when dry
DURABILITY	Moderate Durability
TEXTURE	Medium to fine
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	General finishing qualities are rated as good. Strength properties are comparable to those of Oak (<i>Quercus spp.</i>). A yellow-coloured dye in the wood may stain fabrics under moist conditions.
MORE INFORMATION	http://tropix.cirad.fr/africa/MOVINGUI.pdf

FSC CERTIFIED SUPPLIERS

Groupe Décolvenaere:

Sawn-wood

Wijma:

Sawn wood

CERTIFICATE CODE

Groupe Décolvenaere:

SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

Wijma:

BV-COC-070607

FSC LICENSE

Groupe Décolvenaere:

FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

Wijma:

FSC-C013971

WWF/GFTN OFFICES

GFTN-Ghana; GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BANG-LANG (*LAGERSTROEMIA TORMENTOSA*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



VENEER



FLOORING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Yellow brown
DENSITY Kg/m ³	641
SILICA CONTENT	Not Known
MOVEMENT IN SERVICE	Unstable
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1050 when dry
DURABILITY	Moderately Durable
TEXTURE	Moderately Fine to Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	This species can also be sourced by GFTN-Vietnam and GFTN-Laos participants for the manufacture of garden furniture, etc. Max harvest from Laos forests for next 5 years: 21,870m ³ CW & 2,624 m ³ FSC. Strength properties comparable to Teak - other species in this range include White oak and Hard maple. It is a very abundant species.
MORE INFORMATION	http://www.ptm.org.vn/index.php?option=com_docman&task=doc_view&gid=433

FSC CERTIFIED SUPPLIERS

Truong Thanh:
Garden furniture

NWP Lao Industries Company Limited:
Sawn wood, Indoor and Outdoor Furniture, decking

Sabah Forestry Department:
Logs

CERTIFICATE CODE

Truong Thanh:
SGSHK-COC-001228 / SGSHK-COC-002981

NWP Lao Industries Company Limited:
SW-COC-004736

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

FSC LICENSE

Truong Thanh:
FSC-C011411 / FSC-C015805

NWP Lao Industries Company Limited:
FSC-C068056

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

WWF/GFTN OFFICES

GFTN-Laos; GFTN-Vietnam
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BAYABOCHI (*CALYCOPHYLLUM SPRUCEANUM*)



FLOORING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Pale brown
DENSITY Kg/m ³	817
SILICA CONTENT	High
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2630 when dry
DURABILITY	Durable
TEXTURE	Fine
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	Hard wood, good natural stability. Does not present difficulties during sawing despite its hardness. A soft program kiln is required. Good finishing qualities. Difficult to work because of its hardness.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

Maderera Rio Yaveryja:

Logs & Sawnwood

Marvesa:

Sawnwood, flooring & decking

Maderera Rio Acre:

Sawnwood

Wood Tropical Forest:

Sawn wood

CERTIFICATE CODE

Maderera Rio Yaveryja:

RA-FM/COC-002175 / RA-COC-003503

Marvesa:

SW-COC-004229

Maderera Rio Acre:

SW-FM/COC-002176 / SW-COC-002189

Wood Tropical Forest:

SW-FM/COC-005803

FSC LICENSE

Maderera Rio Yaveryja:

FSC-C003999 / FSC-C017248

Marvesa:

FSC-C010071

Maderera Rio Acre:

FSC-C017050 / FSC-C003290

Wood Tropical Forest:

FSC-C106567

WWF/GFTN OFFICES

GFTN-Peru

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BONGO (*FAGARA HEITZII*)



INTERIOR
FURNITURE



VENEER



FLOORING

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Light yellow to greenish yellow
DENSITY Kg/m ³	512
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	Not found in literature
DURABILITY	Moderate Durability
TEXTURE	Fine to medium
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Has the ability to regenerate in over logged forests. The wood is susceptible to blue stain and logs should be removed from the forest immediately after felling or be treated with an anti-sapstain chemical. General finishing qualities are rated as good. Sawdust can be an irritant.
MORE INFORMATION	http://tropix.cirad.fr/africa/OLON.pdf

FSC CERTIFIED SUPPLIERS

Groupe Décolvenaère:

Sawn-wood

Wijma:

sawn wood

CERTIFICATE CODE

Groupe Décolvenaère:

SW-COC-004046 / SW-CW/FM-005327 / SW-COC-004733 / SW-FM/COC-004622

Wijma:

BV-COC-070607

FSC LICENSE

Groupe Décolvenaère:

FSC-C009192 / FSC-C092829 / FSC-C012782 / FSC-C041197

Wijma:

FSC-C013971

WWF/GFTN OFFICES

GFTN-Cameroon

www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

CANA-FISTULA (CASSIA JAVANICA)



INTERIOR
FURNITURE



GARDEN
FURNITURE



FLOORING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Initially bright yellow, but it matures into yellowish brown to dark brown.
DENSITY Kg/m ³	400-875
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2750 when dry
DURABILITY	Durable
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The timber is reported to be easy to work, and responds readily to ordinary tools. It works with sharp tools to produce smooth surfaces in most operations.
MORE INFORMATION	http://www.woodworkerssource.com/show_properties.php?wood=Cassia%20javanica

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:
Logs

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
Sawn timber, furniture, doors

CERTIFICATE CODE

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
SCS-FM/COC-00108N

FSC LICENSE

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
FSC-C010333

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

CHENCHEN (*ANTIARIS AFRICANA*)



INTERIOR
FURNITURE



VENEER



FLOORING

FEATURES

DISTRIBUTION	Central, West & East Africa
HEARTWOOD COLOUR	The heartwood varies in colour from cream to yellowish-brown or yellowish-grey.
DENSITY Kg/m ³	432
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	505 when dry
DURABILITY	Non-Durable
TEXTURE	Moderately coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The timber is reported to slice into attractive, quartered striped veneers for decorative applications. Its strength in compression, or maximum crushing strength, is medium - lower than that of Mahogany (<i>Swietenia spp.</i>) or Teak (<i>Tectona grandis</i>). A tendency to corrode and stain metals is reported to be controllable.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Antiaris%20africana

FSC CERTIFIED SUPPLIERS

Wijma:
Sawn wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

FSC LICENSE

Wijma:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

DUABANGA (*DUABANGA SONNERATOIDES*; *DUABANGA GRANDIFLORA*; *DUABANGA MOLLUCAN*)



FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Light yellow to light brown
DENSITY Kg/m ³	480
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	460 when dry
DURABILITY	Not Durable
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Quarter sawn material exhibits a very attractive figure. The timber is described as moderately light with good strength properties.
MORE INFORMATION	http://tropix.cirad.fr/asia/DUABANGA.pdf

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:
Logs

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
Sawn timber, furniture, doors

CERTIFICATE CODE

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
SCS-FM/COC-00108N

FSC LICENSE

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
FSC-C010333

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

GEGATAL (*SCHIMA NORONHAE/ CRENATA*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



FLOORING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Pink-brown, red-brown or grey-brown, but is sometimes dark red-brown.
DENSITY Kg/m ³	450-920
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1240 when dry
DURABILITY	Durable
TEXTURE	Fine to Medium
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Gegatal is used as a shade tree in coffee plantations, for reforestation and in water conservation in catchment areas, and as a cover crop in plantations of Merkus pine (<i>Pinus merkusii</i>) and Kauri (<i>Agathis dammara</i>). This species can also be sourced by GFTN-Vietnam and GFTN-Laos participants for the manufacture of garden furniture, etc.
MORE INFORMATION	http://www.ptm.org.vn/index.php?option=com_docman&task=doc_view&gid=433

FSC CERTIFIED SUPPLIERS

Truong Thanh:
Garden furniture

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
Sawn timber, furniture, doors

CERTIFICATE CODE

Truong Thanh:
SGSHK-COC-001228 / SGSHK-COC-002981

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
SCS-FM/COC-00108N

FSC LICENSE

Truong Thanh:
FSC-C011411 / FSC-C015805

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
FSC-C010333

WWF/GFTN OFFICES

GFTN-Malaysia; GFTN-Vietnam
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

HOANG-LINH (*PELTOPHORUM DASYRACHIS*)



GARDEN
FURNITURE



FLOORING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Light brown turning dark brown
DENSITY Kg/m ³	740
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Excellent Stability - Small Movemen
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	990 when dry
DURABILITY	Very Durable
TEXTURE	Medium
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	The timber is attractively streaked and is suitable for furniture manufacture, interior finishing, panelling, mouldings, partitioning, flooring, superior joinery and plywood. This species can also be sourced by GFTN-Vietnam and GFTN-Laos participants for the manufacture of garden furniture, etc. Max harvest from Laos forests for next 5 years: 1,458m ³ CW & 175m ³
MORE INFORMATION	http://www.ptm.org.vn/index.php?option=com_docman&task=doc_view&gid=433

FSC CERTIFIED SUPPLIERS

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
Sawn timber, furniture, doors

CERTIFICATE CODE

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
SCS-FM/COC-00108N

FSC LICENSE

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
FSC-Co10333

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

KOFRAMIRE (*PTELEOPSIS HYLODENDRON*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



WINDOW
FRAMES



VENEER



FLOORING

FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Yellow to golden-yellow to orange
DENSITY Kg/m ³	753
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	Not found in literature
DURABILITY	Moderately Durable
TEXTURE	Fine
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Often confused with the Framiré (<i>Terminalia ivorensis</i>).
MORE INFORMATION	http://tropix.cirad.fr/africa/OSANGA.pdf

FSC CERTIFIED SUPPLIERS

Wijma:
sawn wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

FSC LICENSE

Wijma:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

KO' NIA/BUSH MANGO (*IRVINGIA MALAYANA*)



RAILWAY
SLEEPERS



GARDEN
FURNITURE



FLOORING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Yellow-brown with a greenish tinge, differentiated from the pale yellow-brown or pale brown sapwood, attractive fleck pattern on radial surface due to rays.
DENSITY Kg/m ³	1042
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Good Stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2769 when dry
DURABILITY	Moderately durable – Wood is not resistant to termites and only slightly resistant to fungi.
TEXTURE	Moderately fine and even.
WORKING QUALITY	Difficult
OTHER POINTS OF INTEREST	The wood is very hard and very strong. It is slightly difficult to work when green and difficult when dry. Planing is difficult, the wood turns well, and processing usually produces a moderately smooth to rough finish. This species can also be sourced by GFTN-Vietnam and GFTN-Laos participants for the manufacture of garden furniture, etc. Max harvest from Laos forests for next 5 years: 3,645m ³ CW & 437 m ³ FSC
MORE INFORMATION	http://www.ptm.org.vn/index.php?option=com_docman&task=doc_view&gid=433

FSC CERTIFIED SUPPLIERS

**Sabah Forestry Department:
Logs**

CERTIFICATE CODE

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

FSC LICENSE

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

KULIM (*SCORODOCARPUS BORNEENSIS*)



FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Dark red brown to purple brown and darkens after prolonged exposure
DENSITY Kg/m ³	849
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1370 when dry
DURABILITY	Durable
TEXTURE	Moderately fine
WORKING QUALITY	Fairly Easy
OTHER POINTS OF INTEREST	This species is reported to occur throughout the lowland forests in Borneo, the Malay Peninsula, and Sumatra. It is described as occasionally gregarious. The bending strength of air-dried wood of the species is similar to that of Teak, which is considered to be strong. Compression strength parallel to grain in the air-dry condition is high. Teak, White oak, and Hard maple have high crushing strength. It is fairly hard, resisting wear, denting, and marring fairly well. The weight is very high. The wood is very dense.
MORE INFORMATION	http://www.woodworkerssource.com/online_show_wood.php?wood=Scorodocarpus%20borneensis

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:
Logs

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
Sawn timber, furniture, doors

CERTIFICATE CODE

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
SCS-FM/COC-00108N

FSC LICENSE

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):
FSC-C010333

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

TENTO (*ORMOSIA COCCINEA*)



INTERIOR
FURNITURE



GARDEN
FURNITURE



FLOORING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellow brown
DENSITY Kg/m ³	753
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	1680 when dry Coarse
DURABILITY	Moderately Durable
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	This species is widespread in Latin America. High density and high mechanic resistance with good natural durability. Its decorative appearance means it can be used not only in flooring, but also in furniture or for decorative items.
MORE INFORMATION	http://tropix.cirad.fr/america/TENTO.pdf

FSC CERTIFIED SUPPLIERS

Aserradero Espinoza: Wood, sawn or chipped lengthwise, sliced or peeled, of a thickness exceeding 6 mm; railway or tramway sleepers (cross-ties) of wood, not impregnated

Green Gold Forestry: Sawnwood & logs

Maderera Rio Acre: Sawnwood

Consorcio Forestal Amazonico: Sawn wood, Kiln dried- 2, 3, 4W-5 upL- 6 to 16 feet

Maderera Rio Yaverija: Sawn wood

CERTIFICATE CODE

Aserradero Espinoza S.A.: RA-FM/COC-002327 / RA-COC-002385

Green Gold Forestry: SW-FM/COC-005476 / CU-COC-814849

Maderera Rio Acre: SW-FM/COC-002176 / SW-COC-002189

Consorcio Forestal Amazonico: CU-FM/COC-813373

Maderera Rio Yaverija: RA-FM/COC-002175 / RA-COC-003503

FSC LICENSE

Aserradero Espinoza S.A.: FSC-C015683 / FSC-C019053

Green Gold Forestry: FSC-C104253 / FSC-C103688

Maderera Rio Acre: FSC-C017050 / FSC-C003290

Consorcio Forestal Amazonico: FSC-C005646

Maderera Rio Yaverija: FSC-C003999 / FSC-C017248

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

THONG NANG (*PODOCARPUS IMBRICATUS*)



INTERIOR
FURNITURE



VENEER



FLOORING

FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Pinkish-, yellowish-, or orange-brown, sapwood whitish, often not clearly differentiated, lustrous, becoming dull with age.
DENSITY Kg/m ³	520
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Not found in literature
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	917 when dry
DURABILITY	Non-Durable
TEXTURE	Fine and even
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	This species can also be sourced by GFTN-Vietnam and GFTN-Laos participants for the manufacture of garden furniture, etc.
MORE INFORMATION	http://www.ptm.org.vn/index.php?option=com_docman&task=doc_view&gid=433

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:
Logs

CERTIFICATE CODE

Sabah Forestry Department:
SCS-FM/COC-00136N / SCS-FM/COC-00141N

FSC LICENSE

Sabah Forestry Department:
FSC-C102360 / FSC-C102420

WWF/GFTN OFFICES

GFTN-Malaysia
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

UTUCURO (*SEPTHOTECA TESSMANNII*)



WINDOW
FRAMES

FLOORING

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Light yellowy red
DENSITY Kg/m ³	550 to 750
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	Not found in literature
DURABILITY	Not fully understood
TEXTURE	Medium
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Can be suitable for structural timber (beams and joists) as well as panelling, formwork and doors.
MORE INFORMATION	http://www.pronaturaleza.org/archivos/pdf/xilema_22.pdf

FSC CERTIFIED SUPPLIERS

AIDER:
Community Forest (logs and sawn wood)

Von Humboldt Forest:
Logs & sawn wood

CERTIFICATE CODE

AIDER:
SCS-FM/COC-004384

Von Humboldt Forest:
SW-FM/COC-005713

FSC LICENSE

AIDER:
FSC-C008155

Von Humboldt Forest:
FSC-C106640

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

ANGUEUK (ONGOKEA GORE)



FEATURES

DISTRIBUTION	Central & West Africa
HEARTWOOD COLOUR	Pale yellow
DENSITY Kg/m ³	865
SILICA CONTENT	High
MOVEMENT IN SERVICE	Fair to Good Stability - Medium Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	2300 when dry
DURABILITY	Durable
TEXTURE	Fine and even
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	General finishing qualities are rated as good. The species has very high bending strength, and is much stronger than Teak (<i>Tectona grandis</i>) in the air-dry condition (about 12 % moisture content). Maximum crushing strength, or compression parallel to grain, is exceptionally high. The weight is very high. The species has very high density.
MORE INFORMATION	http://www.fpl.fs.fed.us/documnts/TechSheets/Chudnoff/African/htmlDocs_africa/Ongokeagore.html

FSC CERTIFIED SUPPLIERS

Wijma:
sawn wood

CERTIFICATE CODE

Wijma:
BV-COC-070607

FSC LICENSE

Wijma:
FSC-Co13971

WWF/GFTN OFFICES

GFTN-Cameroon
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BITTERWOOD (*SIMAROUBA AMARA*)



FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Whitish, straw-coloured, or cream white to yellow white
DENSITY Kg/m ³	416
SILICA CONTENT	High
MOVEMENT IN SERVICE	Dimensionally stable after seasoning
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	440 when dry
DURABILITY	Moderately Durable
TEXTURE	Medium to Coarse
WORKING QUALITY	Good
OTHER POINTS OF INTEREST	<p>The genus <i>Simarouba</i> consists of shrubs and small, medium-sized, or large trees that are widely distributed in tropical America. Their growth range extends through northern South America from Venezuela and the Guianas to the Amazon region of Brazil, as well as Trinidad and Tobago. <i>Simarouba</i> grow principally in the Guianas and the Amazon region in Brazil. General finishing qualities are rated as good.</p> <p>The wood has good finishing and polishing characteristics. Grain filling after sanding is reported to give the best surface finishing results.</p>
MORE INFORMATION	http://tropix.cirad.fr/america/MARUPA.pdf

FSC CERTIFIED SUPPLIERS

Industria Maderera San Luis:
Integrated forest products company (Sawnwood)

AIDER:
Community Forest (logs and sawn wood)

Green Gold Forestry:
Sawnwood & logs

CERTIFICATE CODE

Industria Maderera San Luis:
SW-FM/COC-000116 / SW-COC-001357

AIDER:
SCS-FM/COC-004384

Green Gold Forestry:
SW-FM/COC-005476 / CU-COC-814849

FSC LICENSE

Industria Maderera San Luis:
FSC-C017670 / FSC-C004954

AIDER:
FSC-C008155

Green Gold Forestry:
FSC-C104253 / FSC-C103688

WWF/GFTN OFFICES

GFTN-Bolivia; GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

ARAPARI (*MACROLOBIUM ACACIAEFOLIUM*)



INTERIOR
FURNITURE

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Reddish-yellow
DENSITY Kg/m ³	753
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Stable
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	Not known
DURABILITY	Medium durability
TEXTURE	Medium
WORKING QUALITY	Good
OTHER POINTS OF INTEREST	Can also be used in door manufacture. General finishing qualities are rated as good. Large amounts can be found in the central Amazon.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

AIDER:
Community Forest (logs and sawn wood)

CERTIFICATE CODE

AIDER:
SCS-FM/COC-004384

FSC LICENSE

AIDER:
FSC-C008155

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

BAMBULO (*PTEROCARPUS OFFICINALIS*)



INTERIOR
FURNITURE

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellow white or grey
DENSITY Kg/m ³	496
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Fair to Good Stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	657 when dry
DURABILITY	Non-Durable
TEXTURE	Coarse
WORKING QUALITY	Easy to machine
OTHER POINTS OF INTEREST	Also known as Dragon's Blood Tree, as while it is growing the wood produces blood-coloured resin which pours through fissures in the bark. Suggested as a possible alternative to Okoume (<i>Aucoumea klaineana</i>) and African Mahogany (<i>Khaya ivorensis</i>).
MORE INFORMATION	http://www.fs.fed.us/global/iitf/Pterocarpusofficinalis.pdf

FSC CERTIFIED SUPPLIERS

For more information on GFTN producer participants, please visit:

http://gftn.panda.org/about_gftn/current_participants/browse_by_country/

CERTIFICATE CODE

This species is also available as FSC certified from non-GFTN producer companies - for more information, please visit:

<http://info.fsc.org/>

FSC LICENSE

WWF/GFTN OFFICES

GFTN Responsible Forestry Coordinator
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

HURA (*HURA CREPITANS*)



FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Cream white to yellow white, or greyish-white or light beige
DENSITY Kg/m ³	432
SILICA CONTENT	Medium
MOVEMENT IN SERVICE	Seasoned wood is reported to have fair dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	550 when dry
DURABILITY	Moderately Durable
TEXTURE	Texture is reported to vary from moderately fine and even, or medium coarse to coarse
WORKING QUALITY	Good
OTHER POINTS OF INTEREST	General finishing qualities are rated as good. Dust from machining operations is reported to cause skin irritation in some individuals.
MORE INFORMATION	http://tropix.cirad.fr/america/ACACU.pdf

FSC CERTIFIED SUPPLIERS

Maderera Rio Yaveryja:
Logs & Sawnwood

AIDER:
Community Forest (logs and sawn wood)

Maderera Rio Acre:
Sawnwood

Von Humboldt Forest:
Logs & sawn wood

CERTIFICATE CODE

Maderera Rio Yaveryja:
RA-FM/COC-002175 / RA-COC-003503

AIDER:
SCS-FM/COC-004384

Maderera Rio Acre:
SW-FM/COC-002176 / SW-COC-002189

Von Humboldt Forest:
SW-FM/COC-005713

FSC LICENSE

Maderera Rio Yaveryja:
FSC-C003999 / FSC-C017248

AIDER:
FSC-C008155

Maderera Rio Acre:
FSC-C017050 / FSC-C003290

Von Humboldt Forest:
FSC-C106567

WWF/GFTN OFFICES

GFTN-Bolivia; GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

HIGUERILLA NEGRA (*MICRANDA SPRUCEANA*)



INTERIOR
FURNITURE

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Reddish-brown
DENSITY Kg/m ³	Low
SILICA CONTENT	Not known
MOVEMENT IN SERVICE	Moderate dimensional stability
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	Not known
DURABILITY	Low Durability
TEXTURE	Thick
WORKING QUALITY	Moderately Easy
OTHER POINTS OF INTEREST	Considerable amounts of this species can be found in the Peruvian Amazon. The wood from this species has high potential use, and can also be used in joinery and indoor construction.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

Aserradero Espinoza: Wood, sawn or chipped lengthwise, sliced or peeled, of a thickness exceeding 6 mm; railway or tramway sleepers (cross-ties) of wood, not impregnated

Green Gold Forestry: Sawnwood & logs

Maderera Rio Acre: Sawnwood

Consorcio Forestal Amazonico: Sawn wood, Kiln dried- 2, 3, 4W-5 upL- 6 to 16 feet

Maderera Rio Yaverija: Sawn wood

CERTIFICATE CODE

Aserradero Espinoza S.A.: RA-FM/COC-002327 / RA-COC-002385

Green Gold Forestry: SW-FM/COC-005476 / CU-COC-814849

Maderera Rio Acre: SW-FM/COC-002176 / SW-COC-002189

Consorcio Forestal Amazonico: CU-FM/COC-813373

Maderera Rio Yaverija: RA-FM/COC-002175 / RA-COC-003503

FSC LICENSE

Aserradero Espinoza S.A.: FSC-C015683 / FSC-C019053

Green Gold Forestry: FSC-C104253 / FSC-C103688

Maderera Rio Acre: FSC-C017050 / FSC-C003290

Consorcio Forestal Amazonico: FSC-C005646

Maderera Rio Yaverija: FSC-C003999 / FSC-C017248

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

JACARANDA (*JACARANDA COPAIA*)



FEATURES

DISTRIBUTION	Central & South America
HEARTWOOD COLOUR	Pinkish White
DENSITY Kg/m ³	416
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Excellent Stability - Small Movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	350 when dry
DURABILITY	Non Durable
TEXTURE	Medium
WORKING QUALITY	Good
OTHER POINTS OF INTEREST	The species is reported to be widely distributed from Belize to Bolivia and north-eastern Brazil. It is reported to grow in the upland forests of the Amazon region and is also common in the mixed hardwood forests of Guyana. Regenerates abundantly on old clearings. It is a low density and soft, lightweight wood. Copaia wood is reported to compare favourably to White pine in cleavage properties. It is harder than White pine, but is inferior in tension perpendicular to grain, modulus of rupture, impact strength or shock resistance, and shearing strength.
MORE INFORMATION	http://tropix.cirad.fr/america/PARA-PARA.pdf

FSC CERTIFIED SUPPLIERS

AIDER:
Community Forest (logs and sawn wood)

CERTIFICATE CODE

AIDER:
SCS-FM/COC-004384

FSC LICENSE

AIDER:
FSC-Coo8155

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

LUPUNA (CEIBA SAMAUMA)



INTERIOR
FURNITURE

FEATURES

DISTRIBUTION	South America
HEARTWOOD COLOUR	Yellowish red
DENSITY Kg/m ³	432
SILICA CONTENT	Not found in literature
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	850 when dry
DURABILITY	Durable
TEXTURE	Coarse
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Widespread throughout the Amazon. It is a dense and moderately durable wood.
MORE INFORMATION	http://gftn.panda.org/newsroom/?200967/Woods-from-Peru-A-Catalog-of-Perus-Lesser-Known-Timber-Species

FSC CERTIFIED SUPPLIERS

Maderera Rio Acre:
Sawnwood

Maderera Rio Yaverija:
Sawn wood

Von Humboldt Forest:
Logs & sawn wood

CERTIFICATE CODE

Maderera Rio Acre:
SW-FM/COC-002176 / SW-COC-002189

Maderera Rio Yaverija:
RA-FM/COC-002175 / RA-COC-003503

Von Humboldt Forest:
SW-FM/COC-005713

FSC LICENSE

Maderera Rio Acre:
FSC-C017050 / FSC-C003290

Maderera Rio Yaverija:
FSC-C003999 / FSC-C017248

Von Humboldt Forest:
FSC-C106567

WWF/GFTN OFFICES

GFTN-Peru
www.gftn.panda.org/about_gftn/contacts/

ALTERNATIVE SPECIES

MEMPISANG (*MEZZETIA LEPTOPODA*)



FEATURES

DISTRIBUTION	South- East Asia
HEARTWOOD COLOUR	Yellow brown sometimes with a green or pink tinge
DENSITY Kg/m ³	608
SILICA CONTENT	High
MOVEMENT IN SERVICE	Excellent stability - small movement
JANKA/SIDE HARDNESS IN (LBS. OF FORCE)	
DURABILITY	Not durable when subjected to the elements or in contact with the ground.
TEXTURE	Medium to fine
WORKING QUALITY	Easy
OTHER POINTS OF INTEREST	Timber has a high silica content, which may blunt tools.
MORE INFORMATION	Contact GFTN-Indonesia for more information on this species

FSC CERTIFIED SUPPLIERS

Sabah Forestry Department:

Logs

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

Sawn timber, furniture, doors

CERTIFICATE CODE

Sabah Forestry Department:

SCS-FM/COC-00136N / SCS-FM/COC-00141N

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

SCS-FM/COC-00108N

FSC LICENSE

Sabah Forestry Department:

FSC-C102360 / FSC-C102420

Kumpulan Pengurusan Kayu Kayan Terengganu Sdn Bhd (KPKKT):

FSC-C010333

WWF/GFTN OFFICES

GFTN-Malaysia; GFTN-Indonesia
www.gftn.panda.org/about_gftn/contacts/



WINDOW
FRAMES



DECKING



VENEER



GARDEN
FURNITURE



INTERIOR
FURNITURE



RAILWAY
SLEEPERS



FLOORING



ENGINEERING &
CONSTRUCTION

Species trade name/s

AMARELINNO

KOFRAMIRE

KULIM

UTUCURO

Scientific name

Apuleia leiocarpa/ mollaris

Pteleopsis hylodendron

Scorodocarpus borneensis

Septhoteca tessmannii



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RAILWAY
SLEEPERS



FLOORING



ENGINEERING &
CONSTRUCTION

Species trade name/s

AGUANO MASHA
AKOUAPO
AMARELINNO
ANGELIM RAJADO
ANANTA
BAYABOCHI
BISHOPWOOD
CHIMICUA
KULIM
LIMBALI
PEQUIARANA
QUILLOBORDON
SOTO
TAMARINDO
TRAM MOC/ JAMBUL
WALLABA
ZAPATERO

Scientific name

Machaerium inundatum
Sacoglottis gabonensis
Apuleia leiocarpa/ mollaris
Marmaroxylon racemosum
Cynometra ananta
Calycophyllum spruceanum
Bischofia javanica
Pseudolmedia laevis
Scorodocarpus borneensis
Gilbertiodendron dewevrei
Caryocar glabrum
Aspidosperma vargasii
Schinopsis brasiliensis
Dialium guianense
Syzygium cuminii
Eperua falcata
Hyeronima alchorneoides



WINDOW
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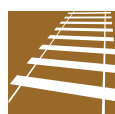
VENEER



GARDEN
FURNITURE



INTERIOR
FURNITURE



RAILWAY
SLEEPERS



FLOORING



ENGINEERING &
CONSTRUCTION

Species trade name/s

BITTERWOOD

ANGELIM RAJADO

ANGUEUK

AYAN

BANG-LANG

BONGO

CHENCHEN

HURA

JACARANDA

KOFRAMIRE

MEMPISANG

TAMARINDO

THONG NANG

TRAM MOC/ JAMBUL

ZAPATERO

Scientific name

Simarouba amara

Marmaroxylon racemosum

Ongokea gore

Distemonanthus benthamianus

Lagerstroemia tormentosa

Fagara heitzii

Antiaris africana

Hura crepitans

Jacaranda copaia

Pteleopsis hylodendron

Mezzetia leptopoda

Dialium guianense

Podocarpus imbricatus

Syzygium cuminii

Hyeronima alchorneoides



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Species trade name/s

AKOUAPO
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ANGELIM RAJADO
AYAN
BANG-LANG
BISHOPWOOD
CANA-FISTULA
CHIMICUA
KO' NIA/ BUSH MANGO
GEGATAL
HOANG-LINH
KOFRAMIRE
LIMBALI
PEQUIARANA
QUILLOBORDON
SOTO
TAMARINDO
TENTO
TRAM MOC/ JAMBUL

Scientific name

Sacoglottis gabonensis
Apuleia leiocarpa/ mollaris
Marmaroxylon racemosum
Distemonanthus benthamianus
Lagerstroemia tormentosa
Bischofia javanica
Cassia Javanica
Pseudolmedia laevis
Irvingia malayana
Schima noronhae/ crenata
Peltophorum dasyrachis
Pteleopsis hylodendron
Gilbertiodendron dewevrei
Caryocar glabrum
Aspidosperma vargasii
Schinopsis brasiliensis
Dialium guianense
Ormosia coccinea
Syzygium cuminii



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Species trade name/s

BITTERWOOD
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ANGUEUK
ARAPARI
ASIAN WALNUT
AYAN
BAMBULO
BANG-LANG
BONGO
CANA-FISTULA
CHENCHEN
CHIMICUA
DUABANGA

GEGATAL
HURA
HIGUERILLA NEGRA
JACARANDA
KOFRAMIRE
LUPUNA
MEMPISANG
TENTO
THONG NANG
ZAPATERO

Scientific name

Simarouba amara
Marmaroxylon racemosum
Ongokea gore
Macrolobium acaciaefolium
Terminalia tormentosa
Distemonanthus benthamianus
Pterocarpus officinalis
Lagerstroemia tormentosa
Fagara heitzii
Cassia Javanica
Antiaris africana
Pseudolmedia laevis
Duabanga sonneratoides; Duabanga grandiflora; Duabanga mollucana
Schima noronhae/ crenata
Hura crepitans
Micranda spruceana
Jacaranda copaia
Pteleopsis hylodendron
Ceiba samauma
Mezzetia leptopoda
Ormosia coccinea
Podocarpus imbricatus
Hyeronima alchorneoides



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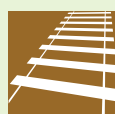
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KULIM

PEQUIARANA

QUILLOBORDON

SOTO

TAMARINDO

TRAM MOC/ JAMBUL

WALLABA

ZAPATERO

Scientific name

Machaerium inundatum

Sacoglottis gabonensis

Calycophyllum spruceanum

Pseudolmedia laevis

Irvingia malayana

Scorodocarpus borneensis

Caryocar glabrum

Aspidosperma vargasii

Schinopsis brasiliensis

Dialium guianense

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LIMBALI
PEQUIARANA
QUILLOBORDON
TAMARINDO
TENTO
THONG NANG
TRAM MOC/ JAMBUL
UTUCURO
WALLABA
ZAPATERO

Scientific name

Machaerium inundatum
Sacoglottis gabonensis
Apuleia leiocarpa/ mollaris
Cynometra ananta
Marmaroxylon racemosum
Ongokea gore
Terminalia tormentosa
Distemonanthus benthamianus
Lagerstroemia tormentosa
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Antiaris africana
Duabanga sonneratoides; Duabanga grandiflora; Duabanga mollucana
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FLOORING



ENGINEERING &
CONSTRUCTION

Species trade name/s

ANGELIM VERMELHO
CUBIUBA
EVEUSS
OKAN
PEQUIA
TALI

Scientific name

(Dinizia Excelsa)
(Goupia Glabra)
(Klainedoxa Gabunensis)
(Cylicodiscus Gabunensis)
(Caryocar Villosum)
(Erythrophleum Suaveolens)

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Tropical rainforest in Gabon. © Martin Harvey / WWF-Canon.

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Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

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