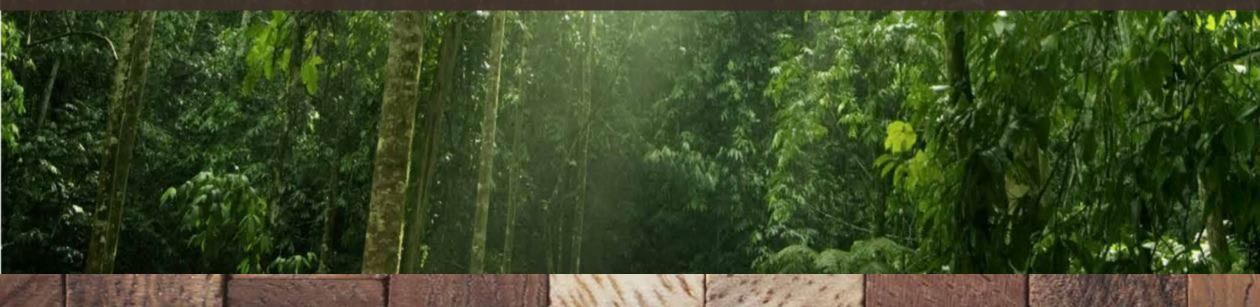
LA RÉFÉRENCE EN MATIÈRE DE BOIS TROPICAL

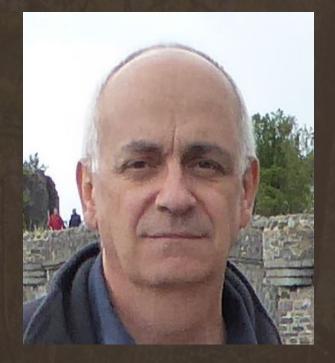
African lumber, a world of opportunities for the US market.

March, 14, 2024





Meet Todays' Panelists







Jean Gerard, PHD Technical lead CIRAD /ATIBT

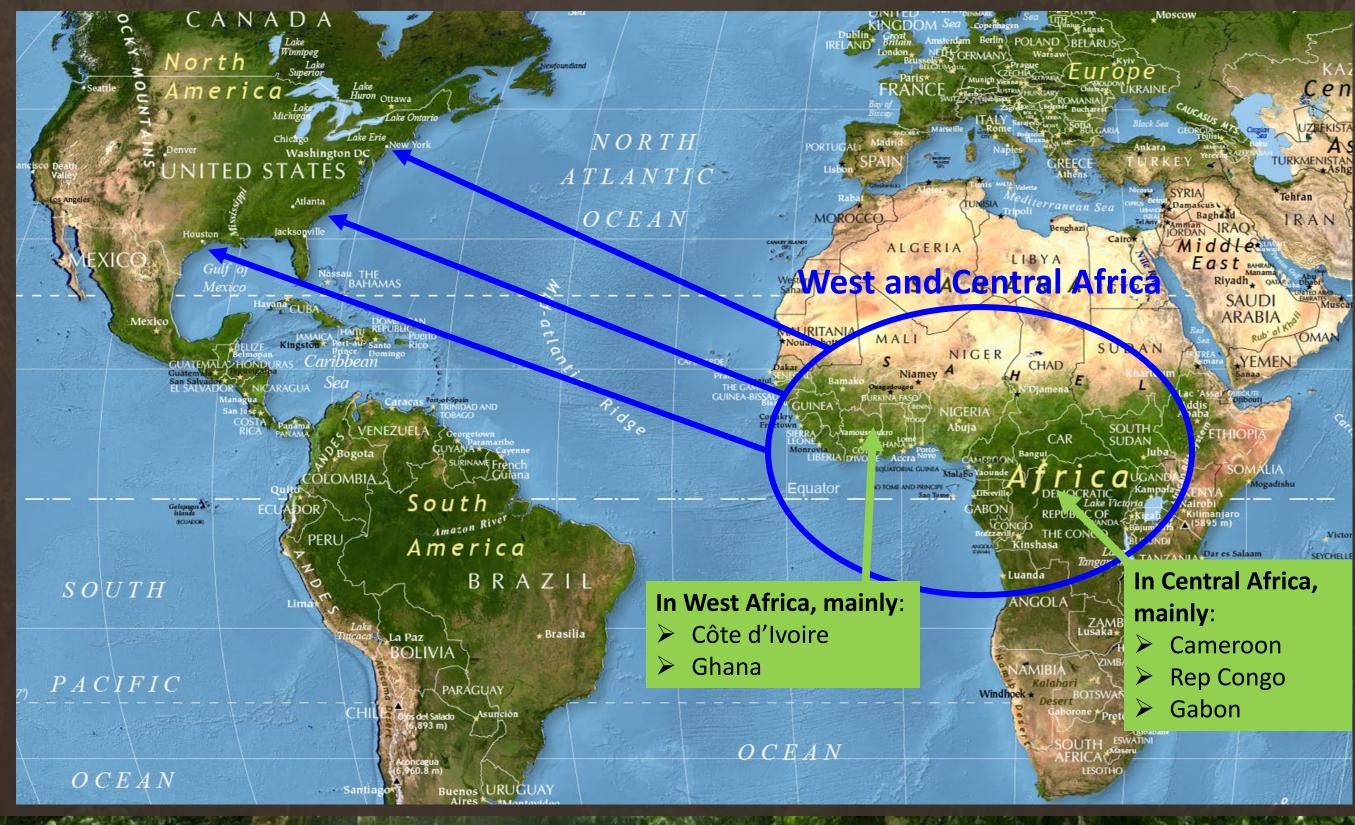
Paul Cuveillier, MS **Technical Associate** ATIBT

Economist WALE/ATIBT



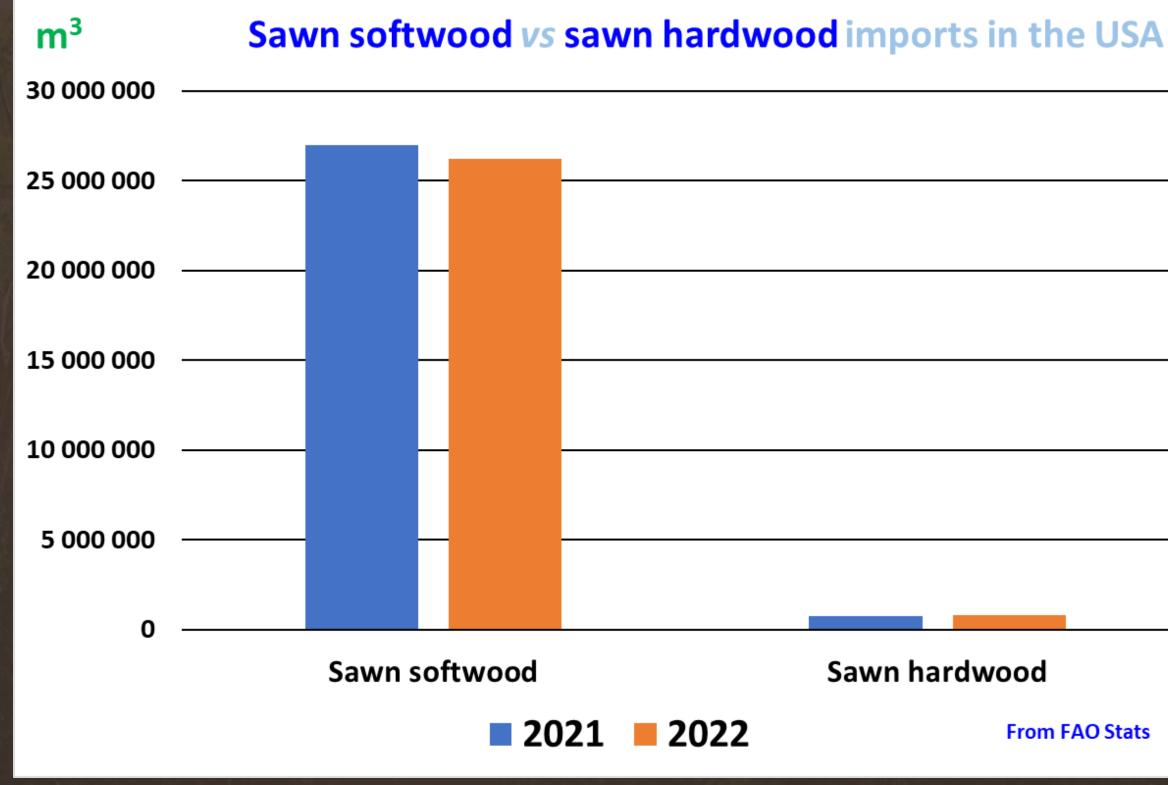
Emmanuel Groutel, PHD

African Tropical Sawn Hardwood flows





Sawn wood imports in the USA (reminder 1) : softwood vs hardwood

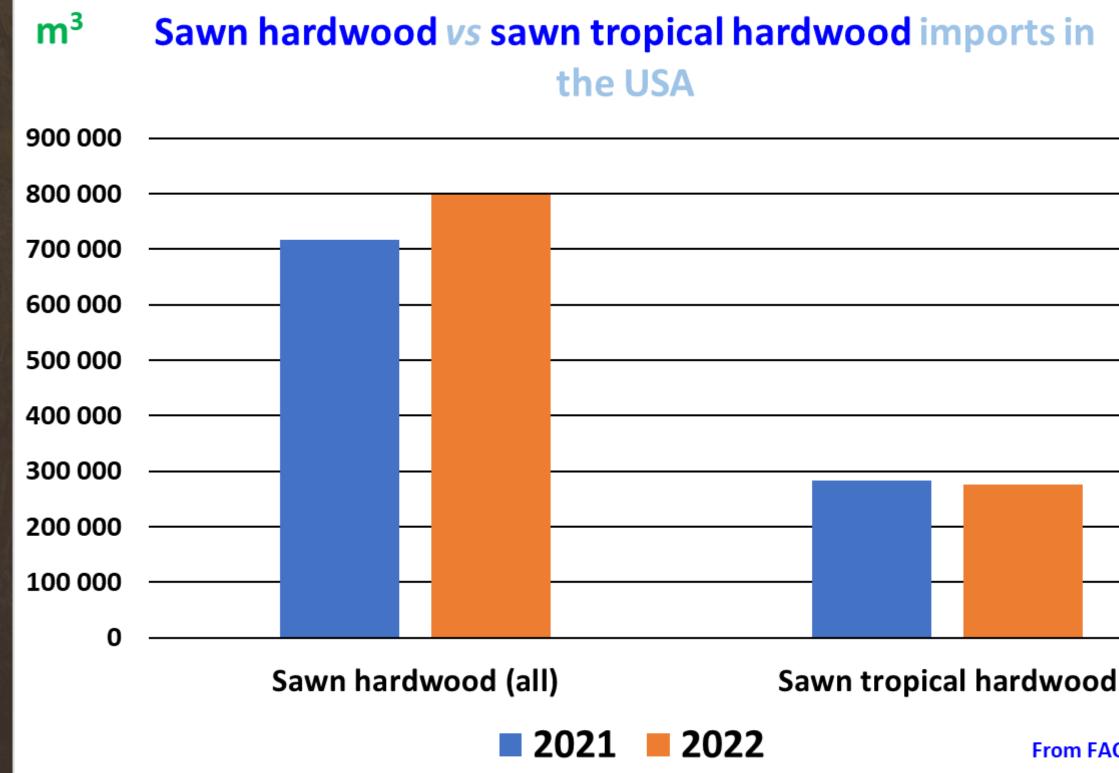




From FAO Stats



Sawn wood imports in the USA (reminder 2): hardwood (all) vs tropical hardwood

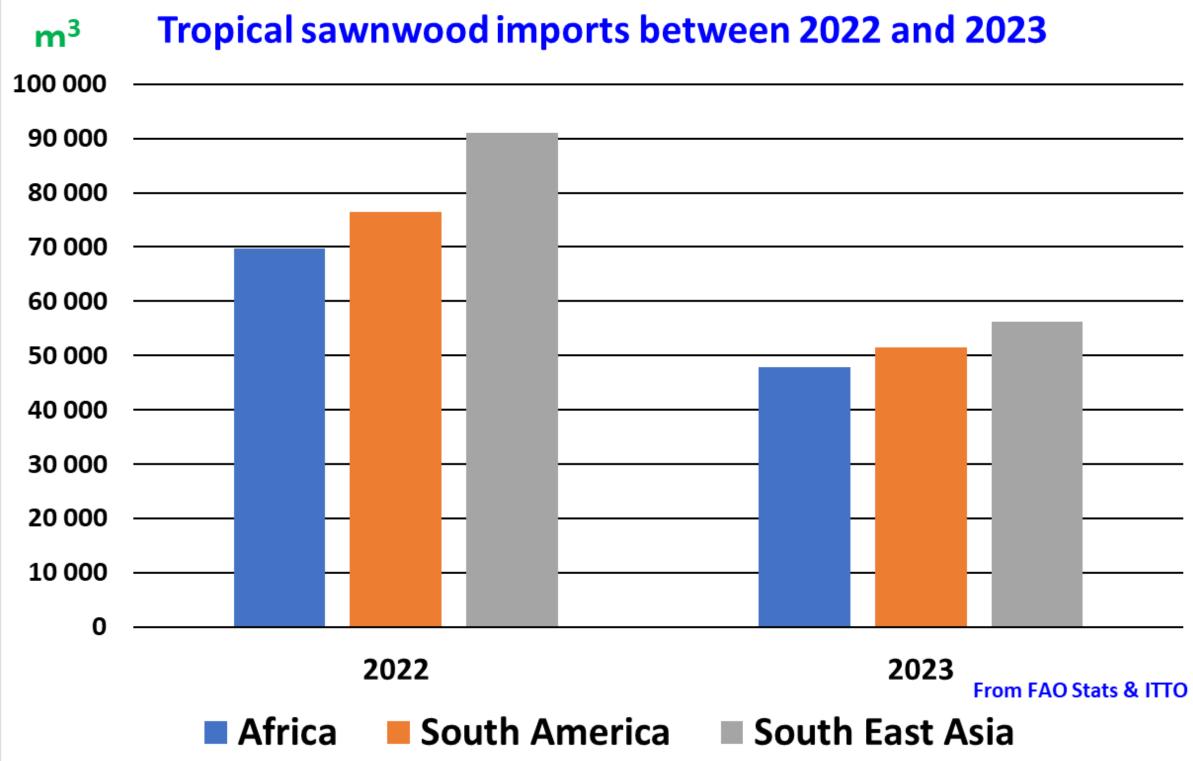




From FAO Stats



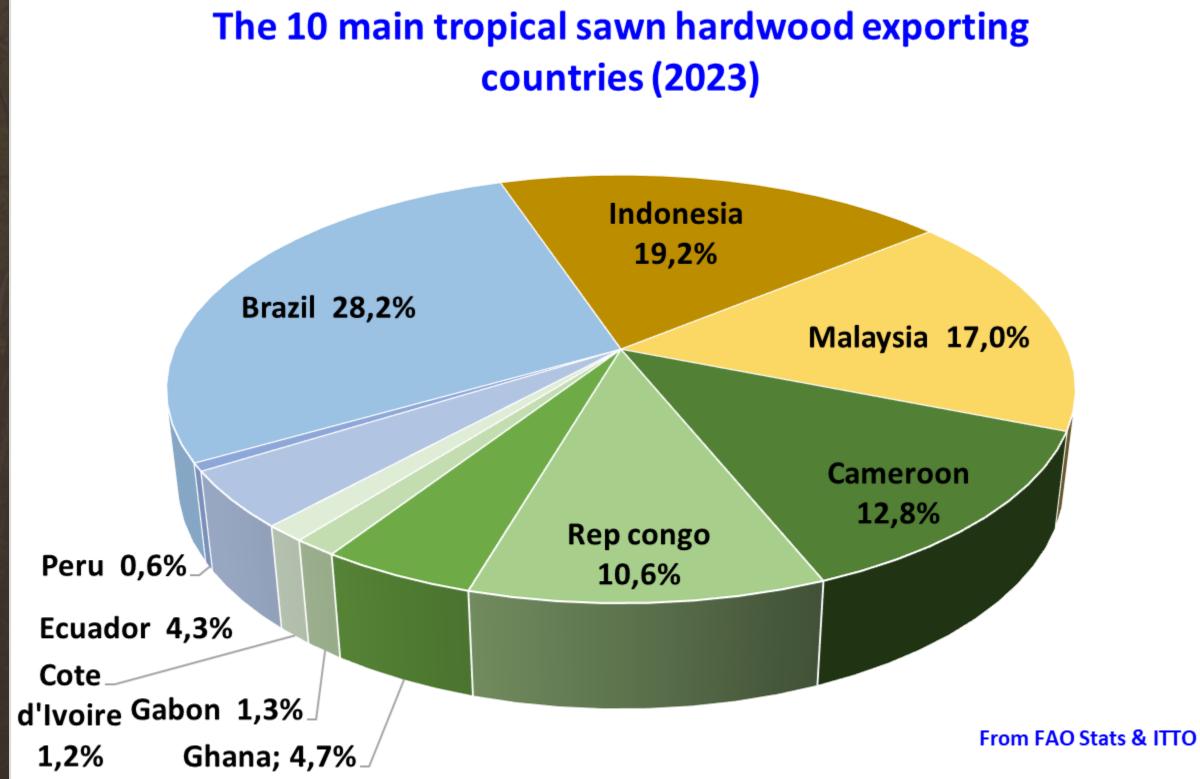
Tropical sawn hardwood imports in the USA





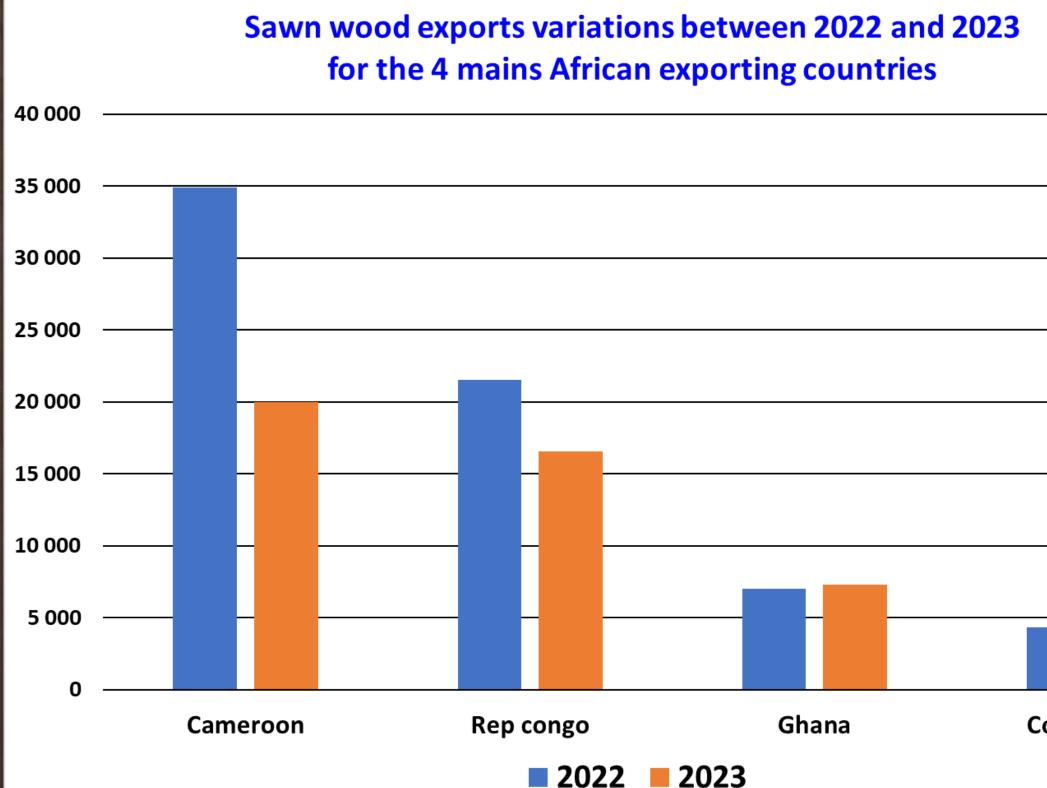


USA tropical sawn hardwood suppliers





The 4 main African sawn hardwood exporting countries to the USA



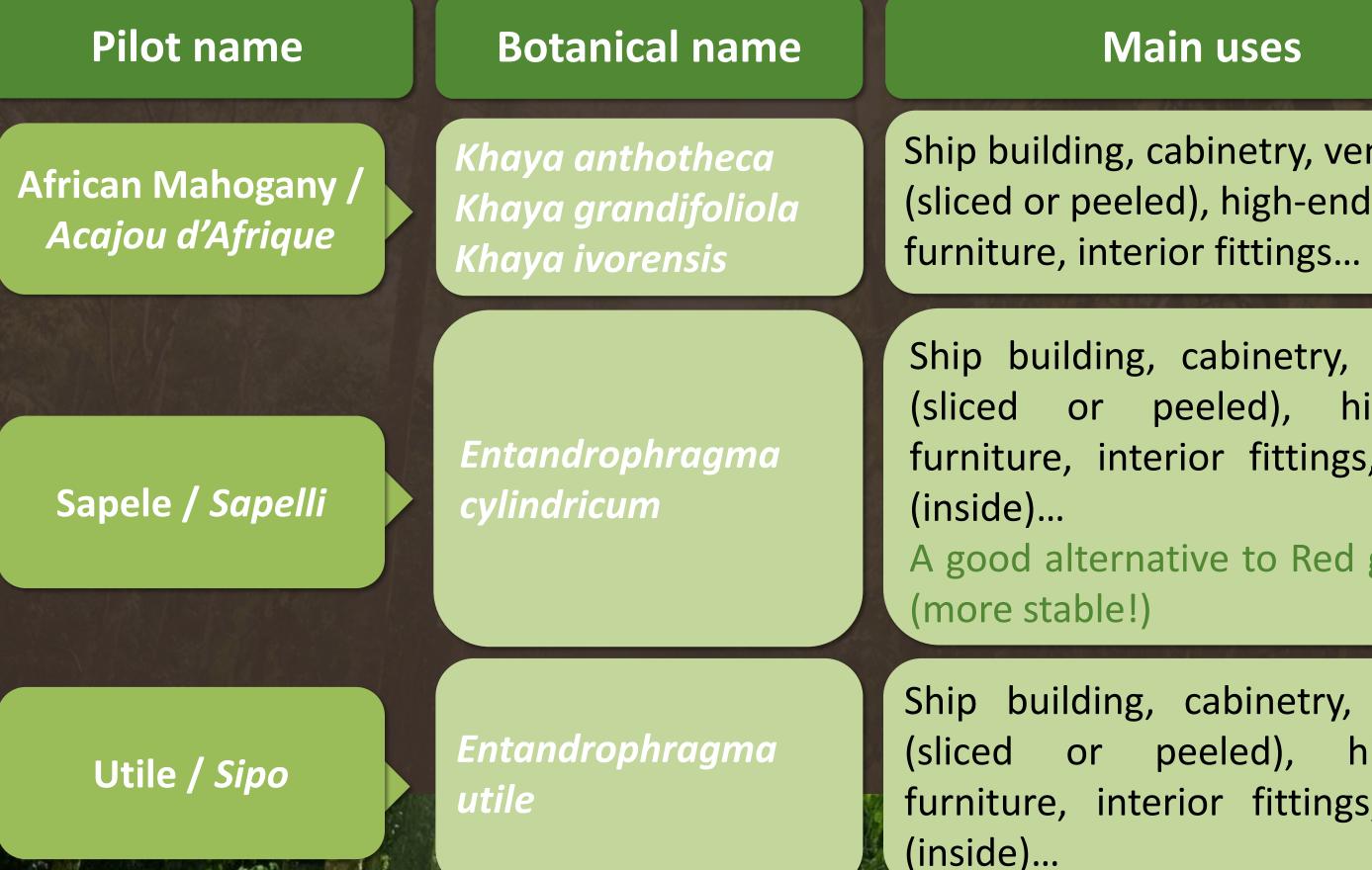


Cote d'Ivoire





The main African timber species imported by the USA (1)





Main uses

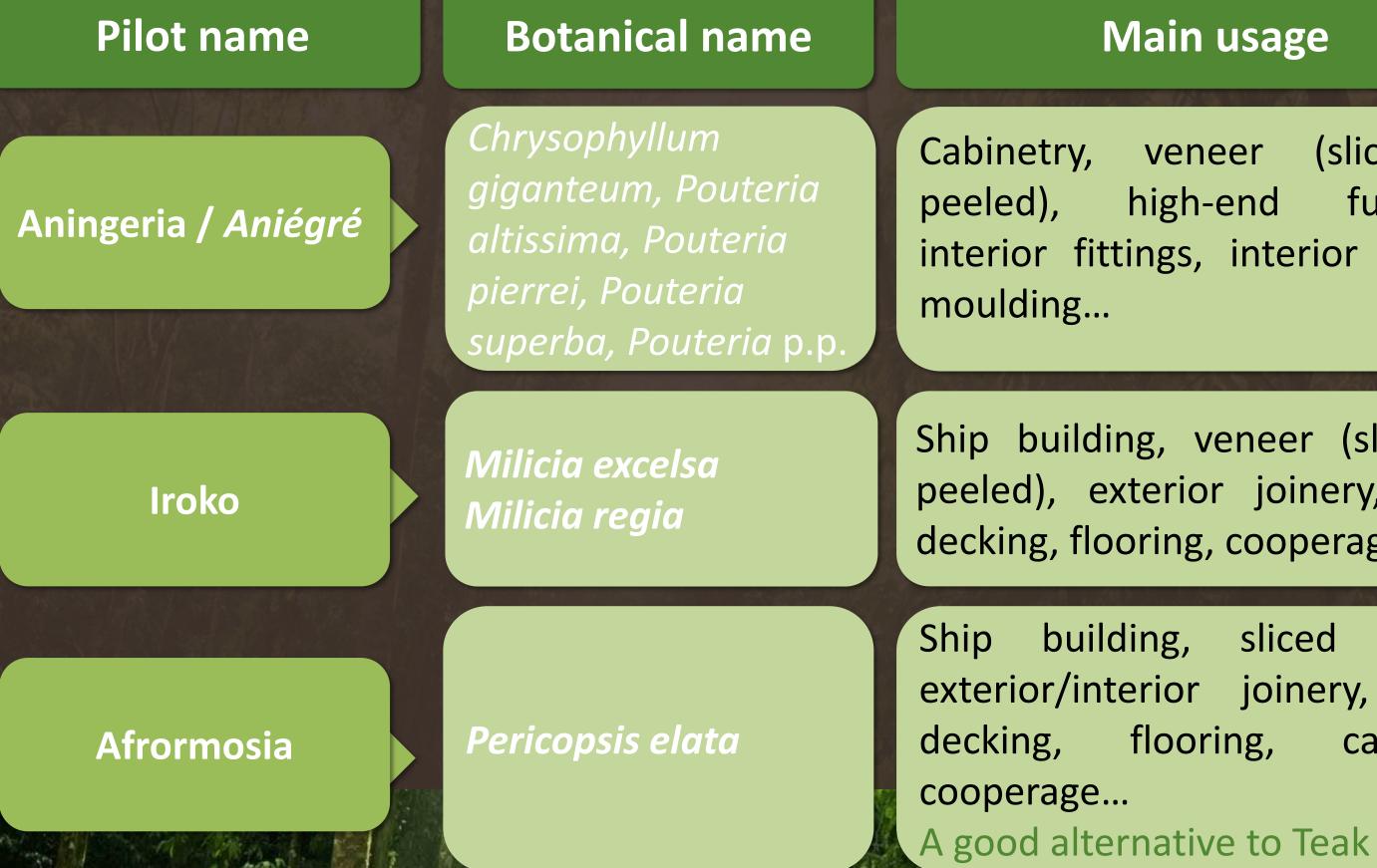
Ship building, cabinetry, veneer

Ship building, cabinetry, veneer high-end furniture, interior fittings, stairs

A good alternative to Red grandis

Ship building, cabinetry, veneer high-end furniture, interior fittings, stairs

The main African timber species imported by the USA (2)





Main usage

Cabinetry, veneer (sliced or peeled), high-end furniture, interior fittings, interior joinery,

Ship building, veneer (sliced or peeled), exterior joinery, stairs, decking, flooring, cooperage...

Ship building, sliced veneer, exterior/interior joinery, stairs, decking, flooring, cabinetry,

The main African timber species imported by the USA (3)

Pilot name

Botanical name

Ekki / Azobé

Lophira alata

Hydraulic works (fresh and sea water), heavy construction, bridges (parts in contact with water or Ground), sleepers... A good alternative to Greenheart

Cedro (from plantations in Western Africa)

Cedrela odorata, C. angustifolia, C. fissilis

Shingles, cigar boxes, ship building (planking and deck), cabinetry (high-end furniture), boxes and crates, veneer (sliced or peeled), musical instruments, sculpture, marquetry



Main usage

African timber species for the future (1)

Type of timber and related applications



Heavy timber species with high natural durability (resistance to decay) for heavy outdoor applications

(alternative to Ipé, Cumaru)

- Missanda / Tali (Erythrophleum guineense, E. *ivorense, E. suaveolens*)
- Bilinga (Nauclea diderrichii, N. gilletii, N. *xanthoxylon*)
- **Niové** (Staudtia kamerunensis) lacksquare
- **Mukulungu** (Autranella congolensis) lacksquare
- **Okan** (*Cylicodiscus gabunensis*)
- **Padouk** (*Pterocarpus soyauxii, P. osun*) THEN
- **Kanda** (*Beilschmiedia* p.p.) lacksquare
- **Monghinza** (*Manilkara mabokeensis*, *M. obovata*)
- **Osanga** (*Pteleopsis hylodendron, P. myrtifolia*)



African timber species for the future (2)

Type of timber and related applications



Light to medium-heavy timber species with medium to good natural durability (resistance to decay) for joinery (outdoor/indoor)

(for some of them, possible alternative to Sapele, Utile...)

Timber species

- Kosipo (Entandrophragma candollei)
- **Dibétou** (Lovoa swynnertonii, L. trichilioides)
- **Gombé** (*Didelotia africana, D. brevipaniculata, D. idae, D. letouzeyi, Didelotia* p.p)

THEN

- Kanda (Beilschmiedia p.p.)
- Dahoma / Dabéma (Piptadeniastrum africanum)
- Lati (Amphimas ferrugineus, A. pterocarpoides)
- Mambodé / Amouk (Detarium macrocarpum, D. senegalense)
- Lotofa (Sterculia rhinopetala)



lollei) trichilioides) revipaniculata, D.

strum africanum) pterocarpoides) macrocarpum, D.

African timber species for the future (3)

Type of timber and related applications



Light timber species for interior joinery and **interior fittings**

Timber species

- **Obeche / Ayous** (Triplochiton scleroxylon)
- **Afara / Limba** (Terminalia superba)



African timber species for the future (4)

Type of timber and related applications

Timber species meant for decoration (with veins and figures and attractive aspect

Timber species

- Wengé (Millettia laurentii, M. stuhlmannii)
- Zebrano / Zingana (Microberlinia bisulcata, M. brazzavillensis)
- Awoura (Julbernardia pellegriniana)
- Scented Guarea / Bossé clair (Guarea cedrata, G. laurentii, Guarea p.p.): pleasant smell, alternative to Cedro



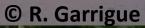


African timber species for the future

What about Okoumé ?









African timber species for the future (1)

Okoumé (*Aucoumea klaineana*), an emblematic Central African species.

- Abundantly available in Central Africa (especially Gabon, but also Cameroon and Equatorial Guinea).
- Easy to dry and glue
- Ideal for peeling, but can also be used for sawn timber.
- Glued products such as 3-ply squares in full expansion



Okoumé (quarter sawn)

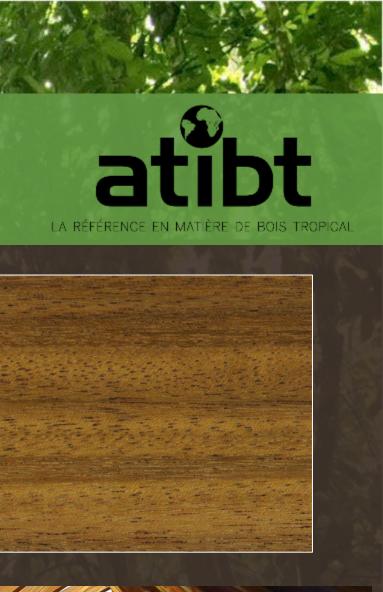
African timber species for the future (2)



- High resistance to decay
- High mechanical properties (specific gravity: 0,91)
- For outdoor applications: decking, hydraulic works, sleepers, bridges (parts in contact with water or ground) ...
 - alternative to Ipè, Cumaru...

Okan





C Bois et Loisirs, Croix (France)

African timber species for the future (3)



Niové

- High resistance to decay
- High mechanical properties (specific gravity: 0,88)
- For outdoor applications: decking, ship building (planking and deck), heavy flooring, poles...
 - alternative to Ipè, Cumaru...





© E. Groutel / WALE

African timber species for the future (4)



Missanda / Tali

101



- High resistance to decay
- High mechanical properties (specific gravity: 0,90)
- For outdoor applications: decking, flooring, bridges (parts in contact with water or ground), heavy carpentry ...
 - alternative to Ipè, Cumaru...





African timber species for the future (5)



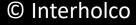
Kosipo



- Good to medium resistance to \bigcirc decay
- Medium mechanical properties 0 (specific gravity: 0,69)
- For joinery (indoor/outdoor), Ο veneer (sliced, peeled), flooring, interior fittings...
 - alternative to Sapele, Utile...







Why choose African timber ?

 Availability Tropical Africa 5.4 million hectares (= 2.2 million acres) FSC* or PAFC* eco-certified Between 1 million and 1.5 million m³ of roundwood per year

Lacey Act compliant

Logistics





Disponibility: Supply is guaranteed for a large range of species

 Diversity: large number of species available (several hundred), abundant quantity for many of them, all possible uses are covered

FSC : Forest Stewardship Council

PAFC : Pan African Forest Certification



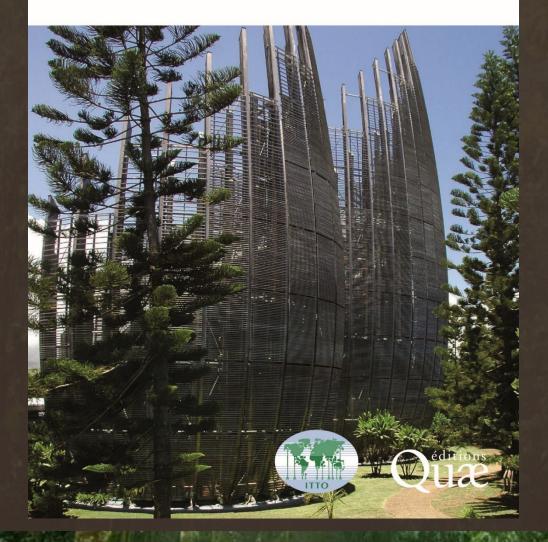




Technical data and information on tropical timber (1)



Tropical Timber Atlas



TMT-SDP-010-12-R1-M-Tropical%20Timber%20Atlas.pdf

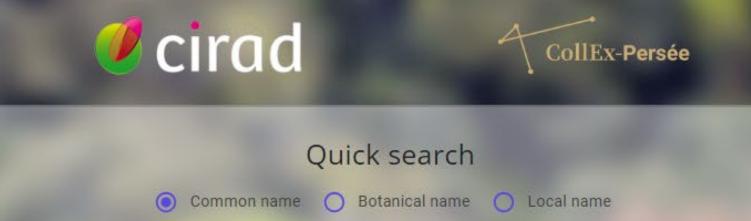


https://www.itto.int/files/itto_project_db_input/3028/Technical/E-

Technical data and information on tropical timber (2)

TROPIX-WEB

Technological characteristics and uses of 300 tropical or temperate timber species



Quick search

ADVANCED SEARCH

SHOW ALL SPECIES

Designed and produced as part of the <u>NumBois</u> project funded by the GIS CollEx-Persée, the Tropix-web site offers three main functionalities:

- Direct consultation of data and technological information on 300 tropical or temperate woods.
- Multi-criteria interrogation of species from pre-selected characteristics.
- Printing of technical data sheets essentially containing the data and information that can be consulted on the site.

https://www.tropix-web.fr/



Additional resources











For more information: Nathalie.Bouville@atibt.org





POUR UNE GESTION DURABLE DES FORÊTS TROPICALES

THANK YOU

