

Below are some of the timber species which have a recognised commercial interest, both locally and internationally.

KEY: An=Annobonese; B=Bubi; Bi=Bisio; F=Fang (Ntumu and Okak);

N=Ndowe (Balengue, Benga and Combe); syn.=synonymous; v=vulgar

ABURA	AFRICAN ACAJOU OR GABONESE MAHOGANY
<p>Scientific name: Hallea stipulosa (DC.) Leroy [syn. <i>Mitragyna Stipulosa</i> (DC.) Kuntze]</p> <p>Family: <i>RUBIACEAE</i></p> <p>Local names: Elombo (B); Luluambo (Bi); Afop, Afop-zam, Eleyom and Elolom (F); Speckles (N); Bay (V)</p> <p>Tree that exceeds 30 m high. Straight trunk, cylindrical, 10-15 m tall and up to 80 cm diameter; smooth bark, clear; irregular treetop. Elliptical, bright and simple leaves, round at the apex, which can reach 40 cm long; large and bright stipules that reach up to 8 cm long. Small flowers, grouped in very aromatic globular inflorescences. Spherical, capsular fruit.</p> <p>Little differentiation between sapwood and heartwood, the wood colour is between pink and cinnamon. It is soft, light and easy to work with; its grain is fine, it has good condition and is shock resistant. Density: 0.50-0.60.</p> <p>It is sawn without difficulty and is frequently used in interior carpentry, joinery, furniture components in general, mouldings, shutters and plywood. It allows optimal finishes.</p> <p><i>Observations.</i> - The "Elelom" grows spontaneously preferably in wetlands and marshes, where it forms large, almost pure colonies both on the Island of Bioko and the mainland region.</p>	<p>Scientific name: <i>Khaya ivorensis</i> A. Chev.</p> <p>Family: <i>MELIACEAE</i></p> <p>Local names: Nzanguila (Bi); Nsamanguila, Nzamanguila, Samanguila and Zamanguila (F)</p> <p>Tree that reaches up to 45 m high. Straight cylindrical trunk 15-25 m tall, with a diameter of 1, 30-2 m, sustained by large basal buttresses; grey bark; wide treetop with 15-35 cm long leaves, compound branches with 4-7 pairs of 5-8 cm long and 2-5 cm wide leaflets, opposed and more or less elliptical. Whitish flowers grouped in panicles arranged at the ends of the branches. Globular and sub spherical capsule of 7-12 cm diameter, dehiscent, generally with 5 leaflets. 4-6, winged seeds.</p> <p>Differentiated sapwood and heartwood, the first is white/yellowish in colour and the second pink pale and dark pink eventually. It is fine-grained, soft, and easy to work with and polish; good finishes are obtained and dries easily. Density: 0.45 - 0.55.</p> <p>It is frequently used in interior carpentry and cabinet-making, luxury boats, in the manufacture of plywood and for sculpting. It is considered of the highest quality in the tropical timber market and can perfectly replace the real American mahogany.</p> <p><i>Observations.</i> - The "Zamanguila" comes from west and central Africa (from Ivory Coast to Angola) and is easy to find nowadays, real groups of this species on the Island of Bioko and in the mainland region.</p>

AIELE	AZOBÉ
<p>Scientific name: Canarium Schweinfurthii Eng.</p> <p>Family: <i>BURSERACEAE</i>.</p> <p>Local names: Enaja (B); Abé (F) incense tree (B).</p> <p>Tree that reaches 35 m high. Trunk 15-25 m tall and up to 1,50 m diameter, straight, cylindrical, buttresses at the base; light grey bark, with small, scaly, rectangular plates; dense treetop, with thick and long branches. Large leaves arranged in a tuft at the end of the branches, pinnate leaves, opposite leaflets, with numerous nerves. Greenish flowers in terminal panicles. Oblong drupe, violet. With a single seed.</p> <p>Wood with little differentiation between sapwood and heartwood. The first of a light brownish color and the second between pink and white-yellowish. It offers good finishes. Density: 0, 45-0.55.</p> <p>Used in interior woodwork, light furniture items, packaging and for the manufacture of plywood.</p> <p><i>Observations.</i> – Its distribution ranges from Senegal to Angola. It can spontaneously be found in Bioko Island, in the mainland at just before 500 m of altitude and also in the virgin mountain forest. It prefers lateritic and moist soils. When the bark is wounded exudes abundant incense-scented resin, widely used in indigenous traditional medicine.</p>	<p>Scientific name: Lophira alata Banks ex P. Gaertn.</p> <p>Family: <i>OCHNACEAE</i>.</p> <p>Local names: Kuoli (Bi); Akoga (F), Dikoka and Ekoka (N); Palo Hierro (V)</p> <p>Tree that reaches 35 m high. Trunk 20-25 m tall and 0,80-1,50 m diameter, straight, cylindrical; brown-reddish bark or in some cases red oxide; very irregular treetop with many long branches. Simple, leathery, elongated leaves, 4-8 cm long and 2-4 cm wide, up to 60 cm long when is young; clustered at the ends of the branches, they have a red color changing to dark green once it matures; numerous veins parallel and very visible. White to golden yellow flowers, in terminal panicles. Capsule with two membranous wings, one large and the other smaller. With a single oblong seed.</p> <p>Wood with pink sapwood and wavy dark brown heartwood. Coarse grain. Very heavy and hard, unalterable, clearly visible pores, difficult to work with, impossible to nail, unassailable by acids, highly resistant to wear and offers good finishes. Density: 0, 90-1, 10.</p> <p>Used for railway routes, beams, hydraulic works and bridges, winch, cars, poles and wooden floors.</p> <p><i>Observations.</i> – It is typical of the primary forest of west and central Africa, from Senegal to Democratic Republic of Congo. Very abundant on the continental region and the coasts of Cameroon and Gabon.</p>
BILINGA	BUBINGA
<p>Scientific name: Nauclea nauclea (De Wild. & Th. Durand) Merrill [sin. <i>Sarcocephalus trilleisii</i> Pierre]</p> <p>Family: <i>RUBIACEAE</i>.</p>	<p>Scientific name: Guibourtia demeusei (Harms) J. Léonard [No. <i>Guibourtia tessmanii</i> J. Leonard]</p> <p>Family: <i>CAESALPINIACEAE</i></p>

<p>Local names: Ntumbo (Bi); Aloma and Ntoma (F); Ukoña (N).</p> <p>Tree up to 40 m tall. Trunk 15-25 m tall and 0,70-1, 50 m diameter, straight, cylindrical, clean; light grey crust, smooth; ovoid, thick, light green treetop. Leaves of 12-16 x 10-12 cm, simple, opposed among them, perennial; Stipules of 1, 5-2 cm long, elliptic. Yellowish, numerous, small flowers arranged in clusters, at the end of each twig. Syncarpous fruit, fleshy, spheroid, consisting of polygonal cells. Very small, flattened seeds.</p> <p>Yellow-whitish sapwood and yellow-orange heartwood. It is very hard, medium grain, difficult to work with, wear-resistant; offers good finishes. Density: 0, 70-0, 90.</p> <p>It is used in port and naval construction, railway, exterior joinery, cabinetmaking, wagons, decoration, wooden floors and poles.</p> <p><i>Observations-</i> Spices disseminated from Sierra Leone to Angola. Typical of hydrophilic and mature forest, very common on the banks of rivers and in wetlands. Can be found distributed from the coast to the interior of the island of Bioko and in the Guinean mainland region.</p>	<p>Local names: Yong (Bi); Oven and Oveng (F); Evenga (N).</p> <p>Tree up to 27 m tall. Trunk 12-18 m tall and 0.80-2, 50 m diameter, straight, cylindrical, basal fins whips; rough bark, from brownish red to clear brown; irregular treetop, consisting of thick and long branches. Compound leaves; leaflets a single pair. Small, whitish flowers, arranged in terminal inflorescences. Woody, flattened legume. With a single seed, of a dark brown color.</p> <p>Heartwood ranges from a pinkish red to a darker reddish brown with darker purple or black streaks. Sapwood is a pale straw color and is clearly demarcated from the heartwood. Fine to medium grain. It sawn without difficulty and offers colorful finishes. Density: 0, 80-0, 95.</p> <p>Used in furniture and interior decoration, floors, stairs and lathe work. Currently it is sought-after for decorative figures and especially for religious images.</p> <p><i>Observations-</i> The "Oven" is not abundant in Equatorial Guinea and the few still alive are spread throughout the territory. It is a sacred tree venerated by Guinean people in the continental region. People believe that the spirits live in its huge trunk and branches. Anyone who does not respect such folk tradition would be victim of their intransigence. Its wood is considered to be of high quality and comparable to the American mahogany.</p>
<hr/> <p>DIBETOU</p> <hr/>	
<p>Scientific name: Lovoa trichilioides Harms</p> <p>Family: <i>MELIACEAE</i></p> <p>Local names: Mbunde (Bi); Ember and Nvero (F); Mbero (N); African Walnut (V).</p> <p>Tree up to 30 m tall. Trunk 15-20 m in tall and 0,65-1,20 m diameter, straight, cylindrical; usually light gray bark; lush treetop, consisting of thick and long branches; thick buttresses at the base. Leaves 15-25 cm long, compound, pinnate, obtuse, with 4-5 pairs of leaflets opposite or slightly alternate, glossy on the upper part, with</p>	<p>To the same family belongs <i>Religious Copaifera</i> J. Léonard, more or less common in the virgin forests of Río Muni, primarily in the areas of Rio Campo, Niefang and Evinayong. It is known by the trade and fang names "Anzem" and "Azem", respectively.</p> <hr/> <p style="text-align: center;">DOUKA or MAKORÉ</p> <hr/> <p>Scientific name: African Tieghmella Pierre</p>

parallel side nerves. Small, whitish flowers. Oblong capsule, 5 x 1 cm, with 4 valves. Seed in numbers of fours.

Heartwood is a golden yellow to reddish brown, sometimes with darker streaks and veins. Color tends to darken upon exposure and with age. Sapwood is a medium yellow to light gray, and is generally narrow, and is clearly demarcated from heartwood; a narrow transition zone is sometimes present between heartwood and sapwood. Density: 0, 45-0, 60.

It is used in joinery, interior and exterior joinery, fantasy furniture, luxury shipbuilding, flat sheet and turnery.

Observations- Common in the virgin forest in the basin of Rio Muni, found in drained soils and little shady areas. "Ember" wood is very interesting and similar to the European walnut, although softer.

To this family also belongs *Guarea cedrata* (A. Chev.) Pellegr., important timber from Rio Muni virgin forests and common in Niefang. It is also located throughout the dense jungle of Sierra Leone to Democratic Republic of Congo. Its wood has a cedar-like scent. It is known by the trade and fang names "Bossé" and "Ossoung", respectively.

DOUSSIÉ

Scientific name: **African Afzelia** Sm. ex Pers.

Family: *CAESALPINIACEAE*.

Local name: Nfum-Oveng (F)

Tree up to 25 m tall. Trunk 12-15 m tall and 0, 60-0, 90 diameter, clean, straight, cylindrical; reddish, rough grey bark; developed treetop, regularly round, long branches. Compound leaves, elliptic, 15-30 cm long, with 4-5 pairs of leaflets opposite, glabrous, leathery, elliptical

Family: *SAPOTACEAE*

Local names: Okola and Ukola (F)

Tree up to 50 m tall. Trunk 18-20 m tall and 2, 5-3 m diameter, high, straight, cylindrical; grayish bark; lush treetop, consisting of many long branches. Simple leaves, grouped in the terminal part of the branches, steep side ribs. Small flowers in the axils of the leaves. Fleshy, ovoid drupe. Seeds from 1-3, with woody integument, hard, shiny brown.

Wood with distinct whitish sapwood and pink to brown reddish brown heartwood. Fine-grained, it is very dense, tough and durable; It is sawn easily and offers a good finish. Density: 0, 60-0, 70.

It is used especially in shipbuilding, bodywork, interior and exterior carpentry, lathe work, joinery, marine plywood and floors.

Observations- "Ukola" is considered a top-quality mahogany, but not pleasant to those who work it, due to the irritant action of its sawdust on the mucous membrane.

Its bark presents this family's, composed of more than 700 species, characteristic white latex. The sapotaceae produces prized edible fruits and also well-known chewing gum, which is nothing more than "Chico sapote" (*Achras sapota* L.) curdled and flavored latex, which grows spontaneous in Central America.

It is a forestry kind of great importance and is distributed through the jungles of Cameroon, Gabon and Congo. It is still found in Equatorial Guinea, in greater or lesser abundance, in well drained and shady areas of the Etembue and under Benito.

ÉBENE

and very bright in the upper face. Greenish-yellowish flowers, arranged in panicles of 10-20 cm long. Dehiscent, clamshell, woody legume of 12-15 cm long and 6-8 cm wide. Up to 13 seeds, black shiny, hard, oblong, wrapped in a fleshy aril from orange to red color.

Wood of whitish or yellowish sapwood and reddish to brown heartwood. It is hard, heavy, resistant, fine to coarse grained; offers good finishes. Density: 0,70-1,00.

It is used for carpentry, interior and exterior furniture, floors and construction of ports and bridges.

Observations- Loggers say that this species is the true commercial "Doussie" and its opponent, the fake "Doussie", the *Azelia pachyloba* Harms, also timber. The two species are in the continental region, in the forest galleries of dense forests and on the edge of prairies. Its wood is very appreciated and considered one of the most beautiful African mahoganies.

The species *African Didelotia* Baill., known in international trade as "Gombé" and "Angok" in fang, is also worthy of mention.

EMIEN

Scientific name: ***Alstonia boonei*** De Wild.

Family: *APOCYNACEAE*.

Local names: Bojua (B); Fong and Pfooj (Bi); Ekuk and Ekouk (F); Okuka and Okondo (N).

Tree that reaches 40 m tall. Trunk 0,80-1 m diameter, straight, cylindrical, little protruding basal ribs; light grey crust, smooth; irregular treetop, consisting of thick and long branches. Leaves 10-28 cm long and 4-6 cm wide, simple, in whorls, dark and lighter on the underside;

Scientific name: ***Diospyros crassiflora*** Hiern.

Family: *EBENACEAE*.

Local names: Vila (Bi); Envila and Evila (F); Eponga and Gevila (N); Ebony (V).

Tree up to 18 m tall. Trunk 5-10 m tall and 3,30-0,60 m diameter, straight, cylindrical; slightly rough bark, dark brown; compact treetop, consisting of short branches. Simple whole leaves, alternate. Solitary flowers or in groups. The fruits are red berries, arranged along the branches or in the axils of the leaves. With a single seed.

Heartwood is usually jet-black, with little to no variation or visible grain. Occasionally dark brown or grayish-brown streaks may be present. It is heavy, hard, fine-grained; It is sawn without difficulty, the drying is very ungrateful and with a certain risk of crack formation. Density: 1,00-1,10.

It is used in luxury joinery, musical instruments, lathe work and very especially in local crafts.

Observations. - Currently there are around 400 known species of dospiros, most of which are native species from Filipinas and of the indomalaya archipelago. About 77 species are represented in Africa and these include the well-known African ebony, which comes from the species described on this tab. Plant that grows spontaneous on the Guinean mainland region, where it lives in secondary forest and more or less fresh areas. It is considered nowadays more or less rare, although it tends to be scattered in the areas of river field, Niefang and Evinayong Akuenan. Its export is prohibited by the Guinean Government.

It is also interesting to know that a kind of "Ebony" completely different from the Guinean one grows spontaneously in Mozambique. It is the *Dalbergia melanoxylon* Guill. & Perr. (Papilionaceae). It is a small thorny tree, of 6-12 m, which lives in the clayey grounds of Manica and Sofala, Tete and

leaflets of 4-8; numerous secondary side, parallel veins. Creamy white flowers, grouped in false umbels terminals. Fruits are formed by 2 filiform follicles, pendants, 20-25 cm in length. Numerous seeds, slightly elongated, and end up in a tuft of silky hair.

Wood of undifferentiated, yellowish white sapwood and heartwood. It is soft, very light, fine to medium grained, easy to work with, it is handled without any difficulty and allows good finishes. Density: 0, 30-0, 40.

It is used in interior carpentry, furniture, production of matches, light packaging and paper pulp. Fangs used it for sculptures of handicraft and for home siding.

Observations- The "Ekuk" is characteristic in secondary forest and very common throughout the Guinean territory. The bark exudes abundant white latex used by Africans as an antidote to the poison of the estrofanto and certain snakes.

FARO

Scientific name: **Daniellia caillei** A. Chev.

Family: *CAESALPINIACEAE*.

Local names: Bojola (B); Fun (Bi); NSU (F), cedar (V).

Tree up to 45 m tall, trunk 20-30 m tall and 0,70-1, 30 m diameter, clean, straight, cylindrical; most of the trees have buttresses at the base of the trunk; grey to greenish, smooth bark, spotted with a whitish surface film; wide treetop, composed of long branches. Compound leaves, pinnate, with 6-8 pairs of leaflets. Light purple colored flowers. Sheath with the smooth shells. With a single seed.

Wood with whitish sapwood and brown pink to light brown heartwood. Fine to medium grain; it

Niassa. Its wood is black, heavy and is considered one of the most valuable for carpentry work. It is known in the Portuguese market as "Pau-Preto", and its density is 1,0-1,2.

EYONG

Scientific name: **Eribroma oblonga** (Mast.) Former Perre A. Cheval. [syn. Oblong Sterculia Mast.]

Family: *STERCULIACEAE*.

Local names: Endjon, N 'Chong, Ndjog, Ndjong and N' Zong (F).

Tree up to 35 m tall. Trunk 15-25 m all and 0, 60-1, 20 m diameter, clean, straight, cylindrical; light grey crust, smooth; irregular treetop, consisting of more or less long branches; strong and well developed basal fins. Leaves 12-15 cm long and 5-6 cm wide, simple, alternate, entire, pecioladas. Yellowish-cream, solitary or in group flowers, arranged in the terminal part of the branches. Woody, hard, oblong, pendant, dehiscent follicles, 13-15 cm long. Several seeds, wrapped by a yellow aril.

Wood of sapwood and heartwood little differentiated; the second is white cream to light yellow. It is sawn without difficulty. Medium grit; offers good finishes. Density: 0, 70-0, 80.

Used in joinery, woodwork, items of furniture, decoration and rotary cut and flat veneer.

Observations- "Endjon" is grows spontaneously from Liberia to Angola and Uganda. It is abundant on the island of Bioko and in the mainland region. It is characteristic of the virgin and secondary forest. It prefers clayey soils and humid seasons.

<p>is sawn without difficulty and offers beautiful finishes. Density: 0,45-0,60.</p> <p>It is used for veneer sheets, items of furniture, packaging, interior joinery, plywood and mouldings.</p> <p><i>Observations.</i> – Spices that primarily inhabits the edges and marshy areas of small rivers. "Nsu" is one of the copal (saponifiable resin) producing plants. Among the bubis it is considered a sacred tree; grows in colonies both on the island of Bioko and the Mainland.</p>	<p style="text-align: center;">FUMA</p> <hr/> <p>Scientific name: Ceiba pentandra Gaertn.</p> <p>Family: <i>BOMBACACEAE</i>.</p> <p>Local names: Oja (An); Buba (B); Fuma and Pvumá (Bi); Dum (F); Diduma and Oma (N); Ceiba (V).</p> <p>Tree up to 50 m tall. Trunk 15-20 m tall and 4-6 m diameter, straight, cylindrical, with conical thorns on the trunk and branches; Basal ribs protruding up to 5 m from the trunk; grey bark; irregular treetop consisting of numerous thick and long branches. Long-stalked leaves, composed; leaflets in number of 5-7, 6-18 cm long, lanceolate, acuminate. Whitish, grey/greenish flowers, 2,5 -4 cm long, gathered in clusters at the end of the branches. Oblong capsule, 13-16 cm long and 4-6 cm diameter, dehiscent, with 5 leaflets. Numerous seeds, black, spherical, wrapped in silky gray or whitish hairs.</p>
<p style="text-align: center;">ILOMBA</p> <hr/> <p>Scientific name: Pycnanthus angolensis (Welw.) Exell</p> <p>Family: <i>MYRISTICACEAE</i>.</p> <p>Local names: Bosapá (B); Tiang (Bi); ETENG (F); Mosamba (N); Calabó (V).</p> <p>Tree up to 35 m tall. Trunk 12-20 m tall and 0,60-1 m diameter, straight, clean, cylindrical; gray bark, smooth, slightly ridged; irregular treetop, somehow pendulous branches; highly developed basal buttresses. Alternate leaves, oblong, acuminate base of 20-25 cm long and 6-10 cm wide; 20-35 pairs of parallel nerves. Unisexual flowers, arranged in terminal panicles, 10-18 cm long. Dehiscent, brown to redish, oblong drupe with two fleshy leaflets. With a single brown seed, wrapped in a red scarlet aril.</p> <p>Sapwood without differentiation and greyish/white to brown/pinkish heartwood. It is soft, medium to thick grain, light; it is sawn easily; good finishes are obtained. Density: 0,45-0,55.</p>	<p>Wood without a differentiated sapwood and brown pinkish heartwood with gray veins. It is sawn with difficulty, allows good finishes, producing very fine sheets by the appearance of its beautiful waters. Density: 0,28-0,35.</p> <p>It is used in veneer, light packaging, plywood, moldings, light furniture and pulpwood elements. Within the country it is used in the manufacture of canoes (small boats) in Annobon. Its durability is bad and needs a quick dry to prevent fungi and insects.</p> <p><i>Observations.</i>- The ceiba is represented in Equatorial Guinea's coat of arms, and according to Dalziel - in (p. 119) <i>Flora of West Tropical Africa</i> (1927-1928) - it is possible that this species, originally from tropical America, was introduced in Africa by the Portuguese. It is a very visible tree, and one of the most common of Equatorial Guinea, but especially on the islands of Bioko and Annobon. It prefers sandy or clayey, dryish, soils</p>

<p>Used in woodwork, packaging, mouldings, construction and has a great application in the plywood industry.</p> <p><i>Observations-</i> Species characteristic of primary and secondary forest, very distributed from Equatorial Guinea to Angola. It is very common on the island of Bioko and in the mainland region. The trunk, when it is wounded, it exudes a reddish sap with turpentine smell used in Guinean traditional medicine. The seeds are oilseeds and contain 40-50% of a solid shortening formed mainly by trimiristicina.</p>	<p>reaching 700 m of altitude. It is a polymorphous species; there are hybrids and varieties with few or even no thorns at all. There are also differences in its fruits, which may be dehiscent or indehiscent.</p>
<hr/> <p>KONDROTI</p> <hr/>	<hr/> <p>IROKO</p> <hr/>
<p>Scientific name: Rhodognaphalon brevicuspe (Sprague) Roberty [syn. <i>Bombx brevicuspe</i> Sprague]</p> <p>Family: <i>BONBACACEAE</i>.</p> <p>Local names: Aloné y Dum (F).</p> <p>Tree of up to 40m in height. Trunk between 20-25m in height and 0.50-0.90m in diameter, clean, straight, cylindrical, with conical thorns in its youth; its bark is completely smooth, greenish; luxuriant treetop made up of long branches. Compound leaves arranged like fingers with 5 leaflets of 5-10cm in length, rounded, ending in a point. Big, showy flowers with red petals in clusters at the end of the branches. Oblong capsule from 10-14cm in length and 3-6cm in diameter with 5 valves, coated in a whitish fluff. Numerous seeds, spherical, blackish, covered in a coppery yellow fur.</p> <p>Wood of differentiated sapwood, whitish, purplish-brown heartwood with shaded knots. Coarse grain. It is sawed easily and is processed without difficulty. Density: 0.45-0.60.</p>	<p>Scientific name: Milicia excelsa (Welw.) C.C. Berg [syn. <i>Chlorophora excelsa</i> (Welw.) Benth. & hook. f.]</p> <p>Family: MORACEAE.</p> <p>Local names: Lojelá (B); Mbong (Bi); Abang (F); Morera (V).</p> <p>Tree of up to 30m in height. Trunk is 15-20m in height, with a diameter between 0.80-2.30m, clean, straight, cylindrical; dark grey bark with small, lengthwise spots; lightly-marked buttressed roots; dense, tall, dark and elongated treetop. Leaves are between 6-15 x 6-9 cm, and are whole, alternating, oval, acuminate and have a heart-shaped base. Unisexual flowers on different trees, small, arranged in catkins of a creamy beige colour. Male catkins between 6-18cm in length and 0.5cm in width, being longer than the female ones which are thicker and 2-4cm in length. Small, brown-coloured seeds.</p> <p>Wood with differentiated sapwood and heartwood. The first is a yellowish white, and the second a dark brown colour. It is easily sawed, and is strong and tough with a medium coarse grain, its natural durability is good and it gets an optimal finish. Density: 0.55-0.75.</p> <p>It is used in luxury cabinet-marking, interior carpentry, shipbuilding, sheet metal, and the manufacturing of railroad cars, stairs and parquets.</p> <p><i>Observations</i> – Grows spontaneously in West and East Africa, commonly found in cacao plantations in Equatorial Guinea where it is used as a shade</p>

<p>It is used especially for lightweight packaging, manufacturing of plywood, interior carpentry, and elements of furniture and mouldings.</p> <p><i>Observations.</i>- Tree with deciduous leaves in the dry season and widely spread from Sierra Leone to Cabinda (Angola). It is spontaneously found in virgin forest in the Guinean continental region, especially in the areas of Rio Cambpo, Mbini, Niefang and Evinayong (Monte Allen). Its wood is considered a substitute of the “Cabaló” and the “Okume”. The name “Dum” in Fang is common for the <i>Ceiba</i> and <i>Rhodognaphalon</i> genera.</p>	<p>tree. It is a highly-desired wood in the national and international markets for its physical and technical properties.</p>
<hr/> <p>MOABI</p> <hr/>	<hr/> <p>LIMBA</p> <hr/>
<p>Scientific name: Baillonella toxisperma Pierre.</p> <p>Family: <i>SAPOTACEAE</i>.</p> <p>Local names: Doho (Bi); Achap, Adjap and Ayap (F); Boyabe and Edjabe (N).</p> <p>Tree of up to 40m in height. Trunk between 25-30m in height and up to 2m in diameter, cylindrical; brown-grey bark, grooved deeply; luxuriant treetop, dense, dark green, thick branches that are dichotomously divided. Simple leaves, lance-shaped, acuminate, leathery, lustrous, dark green on the upper side of the leaf and whitish on the back; numerous parallel and visible secondary veins, grouped together in the ends of the branches. Greenish flowers, arranged in inflorescences in the branches' extremities. An ovoid drupe, fleshy, between 5-8cm in diameter. Seeds numbering 1-4, oblong, glossy, hard integument and of a light cinnamon colour.</p> <p>Wood with sapwood, not always distinguishable from the heartwood, which is brown/reddish-pink. It is dense, heavy, tough, durable and saws easily. Density: 0.80-0.90.</p> <p>It is used in luxury cabinet-making, in high-quality furniture, hydraulic works, musical</p>	<p>Scientific name: Terminalia superba Engl. & Diels</p> <p>Family: <i>COMBRETACEAE</i>.</p> <p>Local names: Landy (Bi); Akom (F). Limba (V)</p> <p>Tree of up to 50m in height. Trunk of 15-25m in height at 0.80-1.20m in diameter, clean, straight, cylindrical, whitish-grey bark; sparse treetop, branching in layers, numerous thick and long branches of 4-6 well-developed tubular roots. Leaves from 12-15 by 5-8 cm, simple, alternating, oblong, grouped together especially at the ends of the branches. Spiked flowers of a cream colour. Its fruit is drupaceous with 2 membranous wings. With a single seed.</p> <p>Wood of slightly differentiated sapwood and yellow-ish white heartwood, and brownish-black knots. It is homogenous, light, of a medium coarse grain, is sawed easily, processed without difficult and permits good finishes. Density: 0.45-0.65.</p> <p>It is used in interior carpentry, manufacturing of packaging, mouldings, elements of furniture, sheet metal for decoration and for the manufacturing of plywood.</p> <p><i>Observations.</i>- The “Limba” is found from Sierra Leone to Angola. It is typical in created forests and is very abundant in the north of Rio Benito: it forms nearly-pure colonies in the areas of Monte Bata, Machinda, Rio Campo, Ayamiken and Niefang.</p>

<p>instruments, lathe work, sculptures, heavy construction and parquet flooring.</p> <p><i>Observations.</i>- The “Adjap” is indigenous in virgin forests and is found in Cameroon, Gabon, Congo and Angola. It prefers above all clay soils, fresh and shallow. The seeds contain 60% fat which is used in Guinean food and medicine. It is an abundant species in the Guinean continental region and its wood is very similar to the hard American mahoganies.</p>	<p style="text-align: center;">NIOVÉ</p> <hr/> <p>Scientific name: <i>Staudtia kamerunensis</i> Warb. Var. <i>gabonensis</i> (Warb.) Fouillooy</p> <p>Family: <i>MYRISTICACEAE</i>.</p> <p>Local names: Boopi (B); Angop, Embueñ, Mbone, Nbom, Ogobe, Ongom y Ovos (F) ; Bokapi (V)</p> <p>Dioecious tree of up to 35m in height. Trunk between 18-20m in height and 0.50-0.80m in diameter, clean, straight, cylindrical; bark of a light brown colour; ovoid treetop, densely branched with short branches, twisting and highly spread out. Leaves between 3-8 and 2-4 cm, simple, alternating, lance-shaped, slightly leathery. Inflorescences of a reddish-yellow colour. Abundant fruits, oblong, dehiscent, with two reddish valves of 2.5-4 cm in diameter. With a single seed, surrounded by a red, fleshy aril.</p> <p>Wood of pale yellow sapwood and reddish-brown heartwood. It is hard, dense, durable, uniform and fine-grained. It is sawed without difficulty and provides good finishes. Density: 0.85-1.00.</p> <p>It is used in solid cabinetmaking, naval constructions, exterior carpentry, sheet metal for decoration, hydraulic works, railway ties, lathe work, stairs and parquet flooring.</p> <p><i>Observations.</i>- Species from virgin and secondary forests, always in well-drained soils. It is found from Nigeria to Angola. It is quite abundant as well on the island of Bioko as well as the continental region. The seeds contain 35% solid and aromatic fat. The bark, when it is cut, exudes a reddish juice which is used in traditional medicines.</p>
<p style="text-align: center;">OBECHE</p> <hr/> <p>Scientific name: <i>Triplochiton scleroxylon</i> K. Schum.</p> <p>Family: <i>STERCULIACEAE</i>.</p> <p>Local names: Ayús y Ayous (F)</p> <p>Tree of up to 45m in height. Trunk of 18-25 in height and 0.80-1.80m in diameter, straight, clean, cylindrical; whitish bark, smooth; irregular treetop, made up of numerous long branches. Simple leaves, lobed, from 10-18cm at its widest part. Solitary flowers or grouped together in the end part of the branches. Winged fruits of 3-4cm in length. With a single seed.</p> <p>Wood of sapwood differentiating little from the heartwood, presenting a yellowish white colour. Of a medium coarse grain, it is light, soft, processed without difficulty and offers good finishes. Density: 0.35-0.50.</p> <p>It is used in the creation of plywood, interior carpentry, packaging, lightweight furniture, boards, moldings and paper pulp.</p> <p><i>Observations.</i>- Tree characteristic of the dense, semi-deciduous forests, with a very wide geographic distribution in tropical Africa, from Equatorial Guinea to the Democratic Republic of</p>	<p style="text-align: center;">EKOUMÉ</p>

<p>Congo The “Ayús” is spontaneous in the Guinean continental region and abundant in the regions of Niefang, Micomeseng and Ebebiying.</p>	<p>Scientific name: Aucoumea klaineana Pierre</p> <p>Family: <i>BURSERACEAE</i>.</p>
<hr/> <p>OLONVOGO</p> <hr/>	<p>Local names: Mvumá y Nfuma (Bi); Angumá (F); Bopumé y Opume (N) Okume (V)</p>
<p>Scientific name: Fagara macrophylla Engl.</p> <p>Family: <i>RUTACEAE</i>.</p> <p>Local names: Bolokoloko (B); Olong (F); Bongo (N); Doradillo y Limoncillo (V).</p>	<p>Tree of up to 40m in height. Trunk between 10-15m in height and 0.70-2m in diameter, straight, cylindrical; bark is a light grey; treetop is lath, developed, light green, with numerous thick and long branches. Compound leaves, pinnate, with usually 13 leaflets. Yellow-golden flowers, small, in end panicles. Oblong capsule formed by 6 valves of 507cm in length. Seeds numbering 5-7, winged.</p>
<p>Tree of up to 15m in height. Trunk between 8-12m in height and 0.50-0.80m in diameter, straight, cylindrical; grey bark with large conical thorns which possess a wide base and a small, sharp tip. Compound leaves, pinnate, from 50-70cm in length, arranged in tufts at the ends of the branches; leaflets are 15-22 x 7-8 cm, numerous, oblong, glabrous, heart-shaped base. Flowers of reddish-brown, arranged in wide panicles, sessile. Small fruits, capsular, 0.5cm in diameter, reddish, grouped together into large fruit clusters. Small seeds, rounded, black.</p>	<p>Wood of greyish-white sapwood and light salmon pink heartwood which, with time, becomes dark pink. It is soft, light and fine-grained, easy to develop, is sawed easily and offers good finishes. Density: 0.30-0.55.</p> <p>It is used in the manufacturing of plywood panels, packaging, exterior carpentry, furniture, recreational boats, mouldings and boxes. Guineans use it for the manufacturing of canoes.</p>
<p>Wood of little-differentiated sapwood and heartwood of a lemon yellow. Medium grain; dense and easy to work with. Density: 0.70-0.85.</p>	<p><i>Observations.</i>- The “Okume” grows in a spontaneous manner throughout the entire continental region and in certain restricted areas of the coastal region of Gabon. According to accredited sources, there are differences in colour and physical properties between the wood from the interior of the country and that which comes from the coastal area. The former is more valued for its quality and density and is highly noted in the international market. This is why it has been the most highly-exported wood from the years 1928-1930, as well as today. Its bark exudes a white resin with a smell of incense, used in traditional Guinean medicine.</p>
<p>It is used in the manufacturing of plywood panels, items of furniture, light carpentry, decoration and packaging.</p>	
<p><i>Observations.</i>- Species characteristic of unspoilt forests as well as secondary forests, and is widely distributed from the Ivory Coast to Angola. Abundant on the island of Bioko and the continental region. It is also known as the species <i>Fagara heitzii</i> Aub. & Pellegr., known by its Fang and commercial name of “Olon”, abundant in the mountainous regions of Niefang and Evinayong.</p>	<hr/> <p>OVÉNGKOL</p> <hr/>

<p>OVOGA</p>	<p>Scientific name: Guibourtia ehie (A. Cheval.) J. Léonard</p>
<p>Scientific name: Poga oleosa Pierre</p> <p>Family: <i>RHIZOPHORACEAE</i>.</p> <p>Local names: Dkal (Bi); Afó and Andó (F); Mpo, Oboaga y Ovogo (N); Castaño de África (V).</p> <p>Tree of up to 35m in height. Trunk between 15-18m in height and 0.80-1.30m in diameter, clean, straight, cylindrical, surrounded by solid buttressed roots; smooth, grey bark; luxuriant treetop made up of numerous long branches. Compound leaves, alternating, slightly leathery, 10-16cm x 6-8 cm, generally comprised of 10 alternating leaflets; deciduous stipules. Thorny flowers, very small. Spherical drupe of 2-4cm in diameter, with 4 aristae. Seeds number 1-3, garnet-coloured.</p> <p>Wood of little-differentiated sapwood and heartwood, of a beige-pink colour. It is dense, heterogeneous, of a coarse grain, easy to work with and has a tendency to knot. Density: 0.45-0.55.</p> <p>It is used for furniture, light carpentry, packaging, moulding, beams, artisan works, etc.</p> <p><i>Observations.</i>- The “Afó” grows spontaneously in primary forests in the continental region where it prefers dried locales and well-drained soils. It is abundant in the coastal region, from Rio Benito to Rio Campo. The seeds, known as chestnuts or almonds, are very flavourful and oily with 60% sweet oil similar to that of olives. The powdered bark is used for skin diseases.</p>	<p>Family: <i>CAESALPINIACEAE</i>.</p> <p>Local names: Akog-ele y Akok (F); Ngondó a Ele (N); Palisandro (V)</p> <p>Tree of up to 30m in height. Trunk between 12-20m in diameter, clean, straight, cylindrical; bark is a greyish green, generally with lichens; high treetop, irregular, strong fin-shaped basal roots. Leaves are split on the same petiole, with a single pair of leaflets, partially deciduous each year. White flowers, joined together in dense terminal inflorescences. Membranous legume. With a single seed, flat, of a brown colour.</p> <p>Wood of greyish-white sapwood and dark, brownish-grey sapwood with knots of grey to dark brown. It is cut easily, is hard, long-lasting, fine-medium grain, offers good finishes. Density: 0.75-0.85.</p> <p>It is used in luxury cabinetmaking, interior and exterior carpentry, bodywork, lathe work, sheet metal for decoration, furniture and parquet flooring.</p> <p><i>Observations.</i>- Species distributed from Liberia to Gabon. It resides in virgen forests in the Guinean continental región where it is found preferably in humid soils, including on the banks of the areas of Rio Campo, Niefang and Evinayong.</p> <p>In the same family is the <i>Distemonanthus benthamianus</i> Baill., also timber and found in the unspoilt forests of Rio Muni. It is common in the regions of Rio Campo, Niefang and Evinayong, and is also found in Sierra Leone and Gabon. It is known by its commercial, vulgar, Fang and Balengue names of “Movingui”, “Tabaco”, “Bien”, or “Eyen”, respectively.</p>
<p>PADOUK DE ÁFRICA</p>	<p>OZIGO</p>

<p>Scientific name: Pterocarpus soyauxii Taub.</p> <p>Family: <i>PAPILIONACEAE</i>.</p> <p>Local names: Kuoj and Mbil (Bi); Ebeul, Mfe and Mve (F); Esyio and Gowegolo (N); Palo Rojo (V).</p> <p>Tree of up to 40m in height. Trunk between 20-25 in height and 0.80-1.30m in diameter, straight, cylindrical, surrounded by strong fin-shaped roots; brown bark; irregular treetop with branches that are more or less dilated. Compound leaves, alternating, imparipinnate, from 20-22cm in length, with 10-16 pairs of leaflets, oblong, alternating, from 5-8cm in length by 2-3cm in width. Yellow flowers joined together in panicles in the axils of the leaves. Flat fruit, from 5-10cm in diameter, surrounded by a membranous wing, wavy at the edges. With a single seed, oblong, crushed, brown in colour.</p> <p>Wood of a whitish sapwood and blood-red heartwood, sometimes with shaded knots that darken with time. It is very hard, dense, tough, durable, coarse-grained and easy to work with. Density: 0.65-0.85.</p> <p>It is used in cabinetmaking, railway ties, hydraulic works, naval and bridge construction, decorative interior carpentry, sheet metal for decoration, parquet flooring, lathe work and local artisan work.</p> <p><i>Observations.</i>- Species native to virgin forest and abundant in the Rio Muni region, as well as the jungles of Cameroon, Gabon, the Democratic Republic of Congo and Angola. The Fangs use the plant, especially the sap, in their traditional medicine.</p> <p>Also found in Rio Muni, usually in the areas of Rio Campo, Niefang and Anisoc, the timber species <i>Millettia laurentii</i> De Wild. is not commercially exploited due to its scarcity. Its brownish-grey wood with beautiful greyish-</p>	<p>Scientific name: Dacryodes buettneri (Engl.) H.J. Lam. [syn. <i>Pachylobus buettneri</i> (Engl.) Guillaumin]</p> <p>Family: <i>BURSERACEAE</i>.</p> <p>Local names : Asi (F) ; Ogigo (N) ; Antaga de Bosque (V).</p> <p>Tree which reaches up to 35m in height. Trunk from 15-20m in diameter, straight, cylindrical; yellowish-white bark with woody, salient spots, deciduous; dense treetop, dark green, with numerous short branches. Compound leaves, pinnate, from 20-30cm in length and with 6-8 pairs of lance-shaped leaflets; the upper side is sharp at the apex, at 8-15cm in length and 4-8cm in width. Small flowers, yellowish-white, in axillary panicles. Drupe of 5cm in length, fleshy, cylindrical, dark blue when mature, in dense clusters. With a single seed.</p> <p>Wood of greyish-white sapwood and a heartwood from pink-white to pink-grey. It is soft, light and of medium grain. Easy to work with, saws easily and offers good finishes. Density: 0.55-0.70.</p> <p>It is used in the manufacture of plywood, interior carpentry, furniture making, packaging and bodywork.</p> <p><i>Observations.</i>- Its geographical distribution coincides with that of the "Okume", as well as its habits and characteristics. This species is abundant in the Guinean continental region and the north of Gabon. Its fruits are highly-regarded for their flavor and are eaten both raw and cooked. The tree exudes a whitish resin with a strong turpentine smell which is used by traditional doctors in Equatorial Guinea for traditional medicine.</p> <hr/> <p style="text-align: center;">SAPELLI</p> <hr/>
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<p>black knots. It is a medium coarse grain and is used in high-quality cabinetmaking and artisan works. It is known on the international timber market as “Wenge” and in Fang by “Ensonso”, “Nsonsó”, “Nson-Soo” and “Nson-Nsó”.</p>	<p>Scientific name: Entandrophragma cylindricum (Sprague) Sprague</p> <p>Family: <i>MELIACEAE</i>.</p> <p>Local names: Abebain y Etom (F); Sapelli (V)</p>
<hr/> <p>TALI</p> <hr/>	<p>Tree which reaches up to 35m in height. Trunk is between 12-18m in height and 0.70-2.30m in diameter, straight, cylindrical, clean; brownish-grey bark; irregular treetop, comprised of numerous long branches; highly-developed buttressed bases. Compound leaves, pinnate, with 5-9 pairs of leaflets measuring 6-15 x 2-5 cm, grouped together at the ends of branches. Whitish flowers joined together in clusters. Woody capsule, oblong, between 13-15cm in length with 5 deciduous valves. With various seeds, crushed, winged.</p>
<p>Scientific name: Erythropheum guineense G. Don</p> <p>Family: <i>CAESALPINIACEAE</i>.</p> <p>Local names: Lundy (Bi); Elon and Elondo (F); Orondo (N); Roble Africano (V).</p>	<p>Semidense whitish-grey sapwood and light brown to brownish-violet heartwood; fine grained. It can be sawed without difficulty and offers good finishes. Density: 0.55-0.70.</p>
<p>Tree of up to 30m in height. Trunk between 10-15 in height and up to 1.70m in diameter, straight, cylindrical; bark from grey to dark brown with woody, salient plates; luxuriant treetop, irregular, with numerous large branches. Bipinnate leaves, 2-4 pairs of pinnae, opposite or subopposite, from 18-25cm in length by 2-5cm in width; leaflets from 4-10cm in length by 2-5cm in width, alternating, oval-ellipse shaped, acuminate at the apex, bright green. Small flowers of a yellowish cream colour, fragrant, arranged in dense terminal inflorescences. Dehiscent legume, crushed, oblong, from 6-12cm in length by 3.5-5cm in width, with leathery or woody valves, slightly curved, of a brown colour. Seeds number 5-8, oval-shaped, dark brown in colour.</p>	<p>It is used in cabinetmaking, interior and exterior carpentry, luxury shipbuilding and aviation, sheet metal for decoration, in the fabrication of plywood panels, parquet flooring and mouldings.</p>
<p>Pinkish-white sapwood and yellowish-red to reddish-brown heartwood, darkens with light exposure, is dense, hard, tough and coarse-grained, long-lasting and difficult to work with. Density: 0.85-1.05.</p>	<p><i>Observations.</i>- Species widely distributed throughout the entire Guinean-Congolese-Angolan jungle. It grows spontaneously in Equatorial Guinea and is found with greater or lesser abundance in the basin of the Rio Campo and the region of Niefang. Its wood is fragrant and reminds one of American cedar. This is why it is considered the African mahogany in the international market of tropical timber, where it receives a high demand.</p>
<p>It is used for train cars, bridge construction, railway ties, hydraulic works and lathe work, beams, exterior carpentry and parquet flooring.</p>	<p>Also in the unspoilt Guinean jungles are the timber species of <i>Entandrophragma angolense</i> (Welw.) C.DC. and <i>Entandrophragma utile</i> Sprague, known in the international market by “Tiama” and “Sipo”, and by its local names of “Dongomangula” and “Abedain”, respectively.</p>

Observations.- Species widely distributed in the West and East African jungles, and very abundant in the Guinean continental region. It also resides in virgin forests as well as secondary forests, with a preference towards humid areas, including in the coastal region. The bark is used as a powerful poison in traditional Guinean medicine.
