

***Adansonia digitata* L.**

4894

Malvaceae

**Nomenclatural reference**

1217

Govaerts, R. (2022): The World Checklist of Vascular Plants (WCVP). – Royal Botanic Gardens, Kew. Checklist dataset of 2022-12-08. Retrieved from <https://sftp.kew.org/pub/data-repositories/WCVP/>, viewed 4.3.2023.

**Summary**

**Intrinsic Traits**

Distribution	Adansonia digitata is widespread in the drier parts of tropical and southern Africa. Its native range reaches from the Sahel zone (south of 14th parallel north) down to southern Africa. In South Africa it occurs only in the warm parts of the Limpopo province. Originally it was absent from many Central African countries, but it has been introduced in most of them. In West Africa it often occurs in baobab orchards around villages. Outside Africa it has been widely introduced in tropical and subtropical regions. In India it is a fairly old introduction most likely brought by Arab traders. Whether A. digitata is introduced to Madagascar or even native there is disputed in the consulted flora sources.
Abundance	Baobab trees mostly grow solitary but they can also form small populations.
Habitat	Adansonia digitata is widely distributed throughout the savannas and savanna woodlands of sub-Saharan Africa. It is characteristic of thorn woodlands and is often found in Colophospermum mopane woodland and in Acacia woodland or thicket.. It is also frequently present near villages or former villages.
Regeneration	Baobab regenerates new bark after the bark has been stripped. It can also regrow after cutting. Growth rate is determined by ground water or rainfall but is mostly slow, mainly due to the low rainfall it receives.
Reproduction	The species is monoecious, i.e. with unisexual flowers which occur on the same individual. The flowers are probably not self-fertile. The flowering period is at end of dry season. Flowers open late in the afternoon and remain open throughout the night. Pollination is mainly by fruit bats and to a lesser extent by bushbabies (lemurs) and possibly by wind, flies and moths. Animals, notably baboons and elephants, play a role in the dispersal of seeds and in breaking their dormancy.
Plant Parts	A variety of plant parts of Adansonia digitata are used, mainly the fruits, seeds, leaves and bark.
Lifeform	Adansonia digitata is a deciduous tree of 20(-30) m height.
Systematics	The genus Adansonia comprises a total of eight species: one in mainland Africa, one in northwestern Australia and six species in Madagascar.

**Extrinsic Traits**

Threat Status	The species has not been assessed globally by IUCN. It has been nationally assessed as Endangered in Oman (2014), and as Least Concern in Burkina Faso (2017) and South Africa (2009).
Threats	For the species as a whole there seem to be no apparent threats of extinction or genetic erosion. However, A. digitata is under pressure through land use changes of a growing rural population. Fruit harvesting has an impact on dispersal and establishment of seedlings, while leaf harvesting can cause mutilation that reduces the number of fruits per tree. At present local management practices contribute to sustain the viability of the species. The results point to the fact that the baobab population is not declining but in need of management that secures the maintenance of a genetically diverse population. Overall, the population is not declining but is in need of management that secures the maintenance of a genetically diverse population.
Purpose	Baobab is a multipurpose tree that has hundreds of traditional uses which range from food, fodder, and medicine to environmental and material uses.
Use Fields	Animal food; animal poison; environmental use; food; food additive; fuel, material (dye, fiber, timber, varnish); medicine; social use (cosmetics, stimulants).
Trade Trend	Commercial interest in baobab has grown for applications in the health food and cosmetics industries. Baobab fruit is an ideal candidate in the functional food market as it is very high in vitamin C and has a high anti-oxidant capacity of the fruit pulp. The global demand for baobab raw material (e.g. seed oil, fruit pulp) by the food and beverage, nutraceutical and cosmetic industries has increased in recent years. It is highly sought after in several market segments such as food and beverages, botanical remedies and nutraceuticals as well as natural cosmetics. USA and EU have recognised the fruit pulp as a food supplement and novel food. Due to the increased demand for health and natural products,

	the international trade is likely to grow. Baobab is harvested mainly from the wild. Limited cultivation efforts are being made in several countries.
Legislation	The species is not protected by CITES. Only one species of the genus <i>Adansonia</i> is listed in CITES: <i>Adansonia grandidieri</i> , an endemic in MG. It is included in Appendix II. <i>Adansonia digitata</i> is legally protected in South Africa. The EU has recognised the fruit pulp as a novel food in 2008. The FDA in the USA has recognised the fruit pulp as a food supplement in 2009.

## Taxonomy and Identification

Taxonomy	Reference
genus: "8 Afr. (1), Madag. (6), NW Aus. (1)"	3753 Mabberley, D.J. (2017): The plant-book. 4th ed
"comprises 8 species, one of which is of African mainland origin, one endemic to Australia and 6 to Madagascar"	1150 Prota4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>
"It has recently been proposed that the African baobab consists of two species - one very widely distributed lowland species with four sets of chromosomes ( <i>Adansonia digitata</i> ), and a second, more montane species with just two sets of chromosomes ( <i>A. kilima</i> ). Some floral differences can be observed, but the hypothesis needs to be tested with wider geographic coverage."	1192 Plants of the World Online (POWO). Royal Botanic Gardens, Kew
"Die Gattung <i>Adansonia</i> [...] setzt sich aus 8 relativ ähnlichen Arten zusammen [...]. Sechs Arten sind endemisch in Madagaskar, eine ist im nordwestlichen Teil Australiens ( <i>A. gregorii</i> F. Muell.) und eine im kontinentalen Afrika beheimatet."	7196 Schütt, Weisgerber, Schuck, Lang, Stimm & Fiedler (2017): <i>Adansonia</i> . In: <i>Flora of Africa</i> . Brill, Leiden

## Synonyms

## Taxon Present in Pharmacopoeias and other References

Name as used in Source	Status	Reference
<i>Adansonia digitata</i> L.	2156	FRLHT - Indian Medicinal Plants Database - <a href="http://www.medicinalplants.in/">http://www.medicinalplants.in/</a>
<i>Adansonia digitata</i>	2095	Iwu, M.M. (1993): Handbook of African medicinal plants. CRC Press, Boca Raton.
<i>Adansonia digitata</i> L.	1180	GRIN (17.3.2015): Download World Economic Plants report from GRIN Taxonomy for the query. Medizin = 'Alle Nutzungen'. Retrieved from <a href="http://www.ars-grin.gov/cgi-bin/npgs/html/taxecon.pl?language=de">http://www.ars-grin.gov/cgi-bin/npgs/html/taxecon.pl?language=de</a>
<i>Adansonia digitata</i> L.	3145	Brinckmann, J.A., Kathe, W., Berkhoudt, K., Harter, D.E.V. & Schippmann, U. (2022): A new global estimation of medicinal and aromatic plant species in commercial cultivation and their conservation status. <i>Economic Botany</i> 22(10): 1-15.
<i>Adansonia digitata</i> L.	3221	Goraya, G.S. & Ved, D.K. (2017): Medicinal plants in India. An assessment of their demand and supply. National Medicinal Plants Board & Indian Council of Forestry Research & Education, New Delhi & Dehradun. Retrieved from <a href="http://www.rcfceast.org/wp-content/uploads/2017/03/Adansonia-digitata-L.-Goraya-GS-Ved-DK-2017.pdf">http://www.rcfceast.org/wp-content/uploads/2017/03/Adansonia-digitata-L.-Goraya-GS-Ved-DK-2017.pdf</a>
<i>Adansonia digitata</i> L.	3561	Quattrocchi, U. (2012): World dictionary of medicinal and poisonous plants. Common names, scientific names, eponyms, synonyms, and etymology. CRC Press, Boca Raton.
<i>Adansonia digitata</i> L.	6796	Arnold, T.H., Prentice, C.A., Hawker, L.C., Snyman, E.E., Tomalin, M., Crouch, N.R. & Pottas-Bircher, C. (2002): Medicinal and magical plants of southern Africa. An annotated checklist. <i>Strelitzia</i> 13: 1-203.
<i>Adansonia digitata</i> L.	8260	Gurib-Fakim, A. & Brendler, T. (2004): Medicinal and aromatic plants of Indian Ocean islands. Medpharm Scientific Publishers, Stuttgart.
<i>Adansonia digitata</i> L.	8547	Ved, D.K. & Goraya, G.S. (2008): Demand and supply of medicinal plants in India. FRLHT, Bangalore.
<i>Adansonia digitata</i> L.	8730	Brendler, T., Eloff, J.N., Gurib-Fakim, A. & Phillips, L.D. (ed.) (2010): African Herbal Pharmacopoeia. Graphic Press, Mauritius.

## Common Names

Common Name	Typ	Language	Country	Ref
Affenbrotbaum	ver	German		3179 Wiersema, J.H. & Leon, B. (2013): World Medicinal Plants Database
baobá	ver	Portuguese		3179 Wiersema, J.H. & Leon, B. (2013): World Medicinal Plants Database
baobab	ver	Swedish		3179 Wiersema, J.H. & Leon, B. (2013): World Medicinal Plants Database
calebassier du Sénégal	ver	French		3179 Wiersema, J.H. & Leon, B. (2013): World Medicinal Plants Database
dead-rat-tree	ver	English		3179 Wiersema, J.H. & Leon, B. (2013): World Medicinal Plants Database
Dovuyu	ver			3190 Gruenwald, J. & Galizia, M. (2005): Market Medicinal Plants Database
Gorakh-chineh	ver		IN	3182 Maheshwari, J.K. (2004): The Baobab tree
Gorakh-imli	ver		IN	3182 Maheshwari, J.K. (2004): The Baobab tree
hijid	ver	Arabic		1122 Mansfeld's World Database of Agricultural Plants
Ibozu	ver			3190 Gruenwald, J. & Galizia, M. (2005): Market Medicinal Plants Database
imbondeiro	ver	Portuguese		3179 Wiersema, J.H. & Leon, B. (2013): World Medicinal Plants Database
Kalpa-vriksha	ver			3182 Maheshwari, J.K. (2004): The Baobab tree
Khurasani-imli	ver			3182 Maheshwari, J.K. (2004): The Baobab tree
kremetart	ver	Afrikaans		3179 Wiersema, J.H. & Leon, B. (2013): World Medicinal Plants Database
Mbuye	ver			3190 Gruenwald, J. & Galizia, M. (2005): Market Medicinal Plants Database

Mbuyu	ver	3190	
Mbuyu	ver	3190	
Mbuyu	ver Kisuaheli	7196	Schütt, Weisgerber, Schuck, Lang, Stimm
Mkulukumba	ver	3190	Gruenwald, J. & Galizia, M. (2005): Market
Mlambe	ver	3190	
Mnambe	ver	3190	
Moana	ver	3190	
Mobuyu	ver	3190	
monkey-bread-tree	ver English	3179	Wiersema, J.H. & Leon, B. (2013): World
Mowana	ver	3190	Gruenwald, J. & Galizia, M. (2005): Market
Muuju	ver	3190	
Muuyu	ver	3190	
pain de singe	ver French	3179	Wiersema, J.H. & Leon, B. (2013): World
Umkhomo	ver	3190	Gruenwald, J. & Galizia, M. (2005): Market

## Distribution Range

Distribution Range	Ref	
"Adansonia digitata is native to the majority of Africa, especially in the drier, less tropical climates. It is found throughout the Sahara and in every country east and south of the Democratic Republic of the Congo, but stays clear of the Mediterranean and tropical countries like Algeria and Guinea [...]. It has also been naturalized in Madagascar"	1136	EoL - Encyclopedia of Life. <a href="http://www.eol.or">http://www.eol.or</a>
"Adansonia digitata is widespread in the drier parts of tropical and southern Africa, from Mauritania in the northwest to Sudan in the northeast, and south to South Africa. It is also found in the Arabian Peninsula."	1192	Plants of the World Online (POWO). Royal B
"African Baobab ( <i>A. digitata</i> ) [...] is planted here and there in some parts of India, but deserves to be grown on a larger scale. [...] The tree was probably brought to India by Arab traders."	3182	Maheshwari, J.K. (2004): The Baobab tree.
"Außerhalb seines natürlichen Areals ist der Affenbrotbaum auf den Kapverdischen Inseln, Madagaskar, der arabischen Halbinsel, in Indien und Sri Lanka verbreitet. Allerdings ist nicht geklärt, ob die Vorkommen in Arabien und in Indien natürlich sind oder durch Einführung entstanden."	7196	Schütt, Weisgerber, Schuck, Lang, Stimm &
"Das natürliche Areal erstreckt sich vom Sahel (Nordgrenze etwa 14° n. Br.) bis ins südliche Afrika (Transvaal). Im Süden wird die Arealgrenze durch Fröste bestimmt. Der Affenbrotbaum fehlt jedoch im Bereich des zentralafrikanischen Regenwaldes."	7196	Schütt, Weisgerber, Schuck, Lang, Stimm &
"in areas of South Africa, Botswana, Namibia, Mozambique and other tropical African countries where suitable habitat occurs. [...] In South Africa it is found only in the warm parts of the Limpopo Province"	1158	Plants of southern Africa - <a href="http://pza.sanbi.or">http://pza.sanbi.or</a>
"In southern Africa, <i>A. digitata</i> is commonly found in Malawi, Zimbabwe, Mozambique and South Africa especially in the warm parts of the Limpopo Province, while in West Africa, it is found in Mali, Benin, Senegal, the Ivory Coast, Cameroon and Burkina Faso. In East Africa, the plant is found in countries such as Kenya, Uganda and Tanzania"	3181	Kamatou, G.P.P., Vermaak, I. & Viljoen, A.M
"native of and widespread in the drier parts of tropical Africa from the dry sub-Saharan scrub to the grassy savannas of South Africa."	1111	Ecoport. FAO. - <a href="https://gaez.fao.org/pages/e">https://gaez.fao.org/pages/e</a>
"Native range: Angola, Botswana, Burkina Faso, Cameroon, Chad, Congo, Eritrea, Ethiopia, Gambia, Ghana, Kenya, Mali, Mozambique, Namibia, Niger, Nigeria, Senegal, Somalia, South Africa, Sudan, Tanzania, Togo, Zambia, Zimbabwe"	8757	Orwa, C., Mutua, A., Kindt, R., Jamnadass,
"Native to: Angola, Benin, Botswana, Burkina, Cameroon, Caprivi Strip, Central African Repu, Chad, Congo, Eritrea, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Gulf of Guinea Is., Ivory Coast, Kenya, Malawi, Mali, Mauritania, Mozambique, Namibia, Niger, Nigeria, Northern Provinces, Oman, Senegal, Sierra Leone, Somalia, Sudan, Tanzania, Togo, Uganda, Yemen, Zambia, Zaïre, Zimbabwe. Introduced into: Bangladesh, Comoros, India, Madagascar, Mozambique Channel I, Sri Lanka, Vietnam"	1192	Plants of the World Online (POWO). Royal B
"native: Afr. natzd.: widely natzd. in tropics cult: A fr.; Ind. Subcont., Malesia; Carib., S. Amer."	3179	Wiersema, J.H. & Leon, B. (2013): World ec
"Native: Africa: East Tropical Africa: Kenya; Tanzania; Northeast Tropical Africa: Chad; Ethiopia; Somalia; Sudan; South Tropical Africa: Angola; Malawi; Mozambique; Zambia; Zimbabwe; Southern Africa: Botswana; Namibia; South Africa; West Tropical Africa: Benin; Burkina Faso; Cote D'Ivoire; Ghana; Guinea; Mali; Niger; Senegal; Sierra Leone; Togo; West-Central Tropical Africa: Cameroon; Zaïre; Western Indian Ocean: Madagascar. Naturalized: widely natzd. in tropics. Cultivated: Africa; South America; Asia-Tropical: Indian Subcontinent: Bangladesh; India; Sri Lanka; Malesia: Indonesia; Southern America: Caribbean: West Indies"	1100	GRIN Database (Germplasm Resources Info
"occurs naturally in most of mainland tropical Africa. Originally it was absent from many Central African countries, but it has been introduced in most of them. In mainland tropical Africa it is still absent from Rwanda, Burundi, Djibouti and Uganda. It has been introduced in Madagascar and many other Indian Ocean islands. In West Africa it often occurs in baobab orchards around villages. Outside Africa it has been widely introduced in tropical and subtropical regions. In India it is a fairly old introduction most likely brought by Arab traders and it now has many local uses similar to those in Africa."	1150	Prota4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>

"The northern limit of its distribution in Africa is associated with rainfall patterns; only on the Atlantic coast and in the Sudan does its occurrence venture naturally into the Sahel. On the Atlantic coast, this may be due to spreading after cultivation. Its occurrence is very limited in Central Africa, and it is found only in the very north of Southern Africa. In Eastern Africa, the trees grow also in shrublands and on the coast. In Angola and Namibia, the baobabs grow in woodlands, and in coastal regions, in addition to savannahs. It is also found in Dhofar region of Oman and Yemen in the Arabian Peninsula, Western Asia."

1135 Wikipedia. [www.wikipedia.org](http://www.wikipedia.org)

"Throughout the hotter and drier parts of tropical and subtropical Africa and in Madagascar."

1155 Flora Zambesiaca - <http://apps.kew.org/eflor>

"widely distributed in the tropical and the drier regions of Africa"

8260 Gurib-Fakim, A. & Brendler, T. (2004): Medic

"Wild distribution: Senegal, Ethiopia, Kenya to Transvaal and Angola"

1122 Mansfeld's World Database of Agricultural a

## Distribution

Continent	Region	ICC	Status	Free Text	Ref
2 Africa	22 West Tropical Africa	BF	native		1192
		BJ	native		1192
		CI	native		1192
		GH	native		1192
		GM	native		1192
		GN	native		1192
		GW	native		1192
		ML	native		1192
		MR	native		1192
		NE	native		1192
		NG	native		1192
		SL	native		1192
		SN	native		1192
	23 West-Central Tropical	CD	native		1192
		CD	native		1192
		CF	native		1192
		CG	native		1192
		CM	native		1192
	24 Northeast Tropical Afri	ER	native		1192
		ET	native		1192
		SD	native		1192
		SO	native		1192
		TD	native		1192
	25 East Tropical Africa	KE	native		1192
		TZ	native		1192
		UG	native		1192
	26 South Tropical Africa	AO	native		1192
		MW	native		1155
		MW	native		1192
		MZ	native		1155
		MZ	native		1192
		ZM	native		1155
		ZM	native		1192
		ZW	native		1155
		ZW	native		1182
	27 Southern Africa	BW	native		1155
		BW	native		1192
		NA	native		1192
		ZA			6796
		ZA	native		1100
		ZA	native	"only in the warm parts of the Limpopo Province"	1158
	29 Western Indian Ocean	KM	introd., established		1192
		MG	introd., established		1192
		MG	native		1100
3 Asia-Temperate	35 Arabian Peninsula	OM	native		1192
		YE	native		1192
4 Asia-Tropical	40 Indian Subcontinent	BD	introd., established		1192
		IN	introd., established		1192
		IN	introd., established		3182
		LK	introd., established		1192
	41 Indo-China	VN	introd., established		1192

**Abundance / Local Population Size**

ICC	Abundance	Reference
	"tends to grow as solitary individuals, though it can be found in small groups"	3842 Rahul, J., Jain, M.K., Singh, S.

**Ecology**

TypeEc	ICC	Ecology	Ref
alti		"am häufigsten in Höhenlagen zwischen 450 und 600 m verbreitet. Außerhalb des Hauptverbreitungsgebietes kommt der Baobab in Lagen zwischen Seehöhe und 1500 m Höhe vor"	7196 Schütt, Weisgerber, Schuck, La
alti		"In East Africa, the range of altitude is from sea level to about 1500 m."	1111 Ecoport. FAO. - <a href="https://gaez.fao">https://gaez.fao</a>
alti		"It is at its best at altitudes of 450–600 m; [...] It is found from sea-level to 1000(–1500) m altitude."	1150 Prota4U - <a href="https://prota.prota4u.c">https://prota.prota4u.c</a>
grow		"A growth model with 4 distinct growth phases has been developed based on data from South African trees. The first 'sapling' phase lasts 10–15 years at the end of which the diameter at breast height is 7–25 cm, height 3–6 m and crown width 2–4 m. The second or 'conical' phase lasts till the tree is 60–70 years old. In this phase growth is fastest and the stem attains its greatest height. At the end of the conical phase the trunk diameter is 0.8–2.2 m, height is 5–15 m and crown width 8–20 m. In the third or 'bottle' phase the trunk thickens and the crown widens with long ascending branches. This phase ends when the tree is 200–300 years old with trunk diameter of 2.8–5.5 m, height 10–20 m and crown width 15–35 m. In the last or 'old age' phase the trunk further expands, heavy branches droop and lower branches may break off from time to time. The crown becomes wide and flattens, the trunk becomes hollow and the tree ultimately dies at an age of 500–800(–1000) years."	1150
grow		"growing [...] at a slow rate."	1123 Plants for a Future - <a href="http://www.pfaf.org">www.pfaf.org</a>
grow		"Growth rate will be determined by ground water or rainfall."	1123
grow		"slow growing, mainly due to the low rainfall it receives"	1158 Plants of southern Africa - <a href="http://www.southafrica.net">http://www.southafrica.net</a>
habit		"Baobab has a broad ecological tolerance [...] which makes it a valuable tree species in otherwise harsh and dry growing conditions. [...] Baobab tolerates very high temperatures and low rainfall, due to the early shedding of leaves and a thick, fire resistant, bark, as well as a trunk that absorbs water in the rainy season and contracts in the dry season."	3192 Buchmann, C., Prehlsler, S., Hai
habit		"characteristic of thorn woodlands of the African savannahs, which are characterized by low altitudes with 4-10 dry months a year split into 1 or 2 periods"	8757 Orwa, C., Mutua, A., Kindt, R., J
habit		"charakteristischer Bestandteil der trockenen Baumsavannen des afrikanischen Tieflandes südlich der Sahara"	7196 Schütt, Weisgerber, Schuck, La
habit		"frequently found near villages or former villages"	1111 Ecoport. FAO. - <a href="https://gaez.fao">https://gaez.fao</a>
habit		"indigenous to, and widely distributed throughout the savannas and savanna woodlands of sub-Saharan Africa"	3181 Kamatou, G.P.P., Vermaak, I. &
habit		"Often found in Colophospermum mopane woodland and in Acacia woodland or thicket"	1155 Flora Zambesiaca - <a href="http://apps.fao.org">http://apps.fao.org</a>
regen		"after the entire tree is cut down it [...] resprouts from the root"	1158 Plants of southern Africa - <a href="http://www.southafrica.net">http://www.southafrica.net</a>
regen		"regenerates new bark after the bark has been stripped"	1150 Prota4U - <a href="https://prota.prota4u.c">https://prota.prota4u.c</a>
repro		"Bats primarily pollinate the large white flowers with their ruffled petals at night, although many different insects and other creatures such as birds will visit the sweetly scented flowers. [...] The seed capsule does not split open, instead it hangs on the tree until it gets blown off by wind or gets collected by monkeys, baboons or people who all enjoy the soft powdery substance that covers the seeds. The seeds are not generally eaten by animals and are discarded, thus effecting dispersal."	1158 Plants of southern Africa - <a href="http://www.southafrica.net">http://www.southafrica.net</a>
repro		"Die Bestäubung erfolgt zumeist nachts durch Fledermäuse (Eidolon helvum in Westafrika, Rousettus aegyptiacus, Epomorphus wahlbergii in Kenia)."	7196 Schütt, Weisgerber, Schuck, La
repro		"flowering: at the end of the dry season"	3183 Forest Ecology and Forest Manag
repro		"Flowers open at night and are pollinated by bats"	1111 Ecoport. FAO. - <a href="https://gaez.fao">https://gaez.fao</a>
repro		"Flowers open late in the afternoon and remain open throughout the night with 1–50 flowers per tree. Flowering of a tree may last 6 weeks. First flowering has been observed on an 8-year-old tree. [...] Pollination is mainly by fruit bats, and to a lesser extent by bushbabies (lemurs) and possibly by wind, flies and moths. Pollinators are attracted by the strong carrion smell of the flowers. Animals, notably baboons and elephants, play a role in the dispersal of seed and in breaking its dormancy."	1150 Prota4U - <a href="https://prota.prota4u.c">https://prota.prota4u.c</a>
repro		"in Westafrika bereits mit 8 bis 10 Jahren mannbar, in Ost- und Südafrika mit 16 bis 17, anderen Arbeiten zufolge mit 22 bis 23 Jahren"	7196 Schütt, Weisgerber, Schuck, La
repro		"It is estimated that it takes between eight and twenty-three years before the baobab produces seeds and the mature plant (over 60 years) can produce more than 160–250 fruits per year"	3181 Kamatou, G.P.P., Vermaak, I. &
repro		"large, white flowers are pollinated by bats and bushbabies"	1192 Plants of the World Online (POV
repro		"Mostly bats (Ephormorphus wahlbergii and Rousettus aegyptiacus) pollinate the flowers. The flowers emit what some describe as a strong carrion smell, which is presumably attractive to the bats; it is also known to attract the bluebottle fly (Chrysomya marginalis) and at least 3 nocturnal moths: American bollworm (Heliothis armigera), red bollworm (Diparopsis castanea) and spring bollworm (Earias biplaga). In East Africa, the bush baby (Galago crassicaudatus) feeds nocturnally on the flowers, thus aiding in pollination."	8757 Orwa, C., Mutua, A., Kindt, R., J
repro		"poll. by bats but also visited by insects & bushbabies; fr. distrib. by mammals esp. baboons & elephants"	3753 Mabberley, D.J. (2017): The plant
repro		"pollinated by bats, bush babies, insects"	1123 Plants for a Future - <a href="http://www.pfaf.org">www.pfaf.org</a>



repro	"Pollination by fruit bats takes place at night"	1158	Plants of southern Africa - <a href="http://">http://</a>
repro	"seed dispersal: fruit bats, elephants"	3183	Forest Ecology and Forest Man
repro	"Some aspects of the baobab's reproductive biology are not yet understood. It is still speculated whether fertile baobab seeds can result from pollination by the tree's own pollen. It would appear as if pollen from another tree is required for fertile seed, as isolated trees do form seed, only to abort them at a late stage. The existence of some very isolated trees, may then be due to their self-incompatibility and inability to reproduce"	1135	Wikipedia. <a href="http://www.wikipedia.org">www.wikipedia.org</a>
repro	"widely spread over the African savanna through natural reproduction (seeds). Many animals will eat the fruit contents once the outer shell has withered and broken, and may at the same occasion assist in seed dispersal [...]. Dormancy is broken when the seeds pass through the digestive tract of animals consuming the fruit."	3181	Kamatou, G.P.P., Vermaak, I. &
repro	monoecious	3183	Forest Ecology and Forest Man

## Life Form

LF_Standard	Duration	Lifeform	Woodiness	Height	Ref
				20m	1192
tree					Plants of the World Online (PO
tree				20(-23)m	3221
tree				20m	Goraya, G.S. & Ved, D.K. (201
tree				20(-27)m	1150
tree				20(-30)m	Prota4U - <a href="https://prota.prota4u">https://prota.prota4u</a> .
tree				20m	1123
					Plants for a Future - <a href="http://www.pfaf">www.pfaf</a> .
					1149
					African Plants Database. - <a href="http">http</a>
					1111
					Ecoport. FAO. - <a href="https://gaez.fao">https://gaez.fao</a>
					1155
					Flora Zambesiaca - <a href="http://apps">http://apps</a>

## Threat Situation

ICC	PopulationStatus	Ref
	"Affenbrotbäume bieten zahlreichen Tierarten Schutz und Nahrung. Viele Vogelarten nisten in der Krone (u.a. Webervögel, Sperlingspapageien, Schleiereulen und Turmschwalben) oder in Stammhöhlungen (u.a. Eisevögel, Nashornvögel, Blauracken, Papageien). Die Früchte werden u.a. von Elefanten, Antilopen, Affen und Kleinsäugetern gefressen. Affen und Paviane knacken zunächst die Frucht, um das Fruchtfleisch zu erreichen. Zu den schutzsuchenden Tierarten gehören unter anderem Schlangen und Busch-Babies (Galago crassicaudatus, Lorisidae)."	7196 Schütt, Weisgerber, Schuck, L
	"Die rasch anwachsende Bevölkerung in vielen afrikanischen Staaten führt zu einer Ausweitung der landwirtschaftlichen Nutzfläche und der Viehhaltung. Der Lebensraum der Affenbrotbäume wird dadurch immer weiter eingeschränkt."	7196
	"Due to the high demand for commercial baobab products in EU and United States, this tree with its edible fruits needs to be conserved and treasured."	3181 Kamatou, G.P.P., Vermaak, I.
	"intense use and harvest [of leaves] leads to reduced fruit harvests and should therefore not be neglected in the discussion on the local impact that baobab fruit export may have"	3192 Buchmann, C., Prehler, S., H
	"Natural regeneration of baobab is poor, mainly because of browsing animals and uncontrolled bush fires."	1150 Prota4U - <a href="https://prota.prota4u">https://prota.prota4u</a> .
	"Vor allem im Osten und Süden Afrikas werden durch diese Entwicklungen die Beziehungen zwischen Affenbrotbaum und Elefant stark zu Lasten des Baobab verschoben. Elefanten nutzen in Trockenzeiten den hohen Wassergehalt des Holzes, indem sie mit den Stoßzähnen die Borke entfernen, das Holz kauen."	7196 Schütt, Weisgerber, Schuck, L
BJ	"Recent studies in Benin emphasized a natural regeneration problem of baobab, due to wild bush fires and other anthropogenic activities, such as land clearing and browsing leading to declining baobab populations."	3192 Buchmann, C., Prehler, S., H
ML	"Fruit harvesting has an impact on dispersal and establishment, while leaf harvesting causes mutilation that reduces the number of fruits on each tree. Mutilation was more severe in cropland than in fallows, and cropland individuals were most prone to damages from plowing and livestock. [...] Some practices are beneficial, either intentional (e.g. seedling protection, transplanting) or unintentional (e.g. dispersal of seeds in garbage), while others are detrimental (e.g. livestock browsing, plowing). At present local management practices contribute to sustain the viability of the species. The results point to the fact that the baobab population is not declining but in need of management that secures the maintenance of a genetically diverse population."	3180 Dhillon, S.S. & Gustad, G. (20
ZW	"For the species as a whole there seem to be no threats of extinction or genetic erosion although locally (e.g. in eastern Zimbabwe) populations are under threat due to changes in the hydrology or to overexploitation."	1150 Prota4U - <a href="https://prota.prota4u">https://prota.prota4u</a> .

## Threat Status: Global and Supranational

### Threat Status: Countries

ICC Region	Threat Category	Assd.	Publ.	Ref
BF	LC Least Concern	2017	3785	Schmidt, M. & al. (2017): Diversity, distribution and p
	Name used in redlist: <i>Adansonia digitata</i> L.	Accepted	Accepted Name: <i>Adansonia digitata</i> L.	
LK	I Indeterminate	1997	1109	UNEP-WCMC Threatened Species Database. Downl
	Name used in redlist: <i>Adansonia digitata</i> (L.) Medic.	Accepted	Accepted Name: <i>Adansonia digitata</i> L.	
MG	K Insufficiently Known	1997	1109	
	Name used in redlist: <i>Adansonia digitata</i> (L.) Medic.	Accepted	Accepted Name: <i>Adansonia digitata</i> L.	

OM	EN	Endangered	2014	3298	Patzelt, A. (2014): Oman plant red data book. Diwan
		Name used in redlist: <i>Adansonia digitata</i> L.	Accepted		Accepted Name: <i>Adansonia digitata</i> L.
OM	NT	Not Threatened	1997	1109	UNEP-WCMC Threatened Species Database. Downl
		Name used in redlist: <i>Adansonia digitata</i> (L.) Medic.	Accepted		Accepted Name: <i>Adansonia digitata</i> L.
YT	LC	Préoccupation mineure	2014	3019	UICN Comité Francais (2014): La Liste rouge des es
		Name used in redlist: <i>Adansonia digitata</i> L.	Accepted		Accepted Name: <i>Adansonia digitata</i> L.
ZA	LC	Least Concern	2009	8950	Raimondo, D., von Staden, L., Foden, W., Victor, J.E
		Name used in redlist: <i>Adansonia digitata</i> L.	Accepted		Accepted Name: <i>Adansonia digitata</i> L.

## Purpose of Use

Purpose	Ref
<multiple>	"Fibres from the inner bark are used to make rope and string for basketry, as well as for making beehives. Trunks that have been hollowed by lightning or by humans have been employed imaginatively as a pub, toilet, prison and bus stop. In western Sudan, the trunks were used as water containers. The roots produce a dye." 1192
	"More than three hundred traditional uses have collectively been documented in Benin, Mali, Zimbabwe, Cameroon, the Central African Republic, Kenya, Malawi, South Africa and Senegal" 3181
animal food - bee plant	„Apiculture: The tree is a source of fine quality honey. Wild bees manage to perforate the soft wood and lodge their honey in the holes. In many parts of Africa, the hollow trunks are used for beekeeping.“ 8757
animal food - general	"The leaves are a good animal fodder." 1122
	„Fodder: Young leaves, fruit, pods and seeds provide fodder for game and domestic animals. During drought, donkeys and game animals chew both the bark and fibrous wood for sap. Livestock and game often destroy young trees.“ 8757
animal poison	„Poison: The bark is boiled for days to extract a substance poisonous to ants. Fruit pulp burns with an acid, irritating smoke that can be used to deter insects troublesome to livestock.“ 8757
environmental use - general	„Soil improver: Decaying wood of a tree that has died of old age or from lightning is spread on fields as a fertilizer. Ashes from the shell, bark and seed are rich in potash and are useful as a fertilizer.“ 8757
environmental use - horticulture	"it is planted as an ornamental and shade tree." 1111
	„Ornamental: A. digitata is a popular species for bonsai specimens. The South African 'Baobab Style' originated with A. digitata.“ 8757
	Environ. (ornamental) 3179
food - beverage	"The ripe fruits have a high amount of ascorbic acid. Therefore it is used for making drinks and to coagulate milk." 1122
	„Alcohol: The Wasandawe of Tanzania use the liquid from the pulp for brewing beer, as do the Akamba people of Kenya, who use the seed pulp as fermenting agent in some local beer.“ 8757
	Food (beverage base) 3179
food - general	"An important indigenous fruit tree, the fruit pulp (rich in vitamin C) is eaten on its own or mixed in porridge and is also used for making soft drinks. Seeds are used as a thickener for soups, and leaves are eaten as a vegetable or in soups." 1192
	"The fruit and leaves are edible" 1111
	"Young shoots, leaves, fruits, and seeds are eaten. The seeds are rich in vitamin B1 and phosphor. They also contain 12-15% oil, which is used as food" 1122
	"Food: An edible white, powdery pulp found in the fruit is very rich in vitamin C and B2 and makes a refreshing drink. Ripe fruits are collected and cracked to remove the 'flour', which is mixed with milk to prepare a flavoured fermented porridge. Young leaves are also rich in Vitamin C, contain uronic acids, and are high in demand in West Africa as a soup vegetable. In Ferlo, North Senegal, an extract of the leaves, called 'lalo', is used to give couscous (millet porridge) a smooth consistency. The leaves also form an excellent condiment and seasoning. The small stem and roots of the seedlings are eaten as vegetable; mature, thick roots are cooked and eaten during famine. A root decoction is widely used in Sierra Leone as food. It is prepared by boiling, roasting, soaking or fermenting the roots, and tastes like almonds. Having a high water content, the wood is chewed by humans and animals in case of extreme water scarcity. The wood can be used as a salt substitute. The acid pith is used as a substitute for cream of tartar in baking, to curdle milk and smoke fish. It is also roasted and used as a coffee substitute. The seeds contain appreciable quantities of tartaric acid and potassium bitar; they are refreshing to suck, and when soaked in water make a palatable drink.“ 8757
	„Lipids: A non-drying, golden yellow oil of agreeable taste, which is used in gala occasions in Senegal, may be obtained by distilling the seeds. In Bicha and Mondo villages in Tanzania, A. digitata seeds are used as a substitute for cooking oil.“ 8757
	Food (seeds); Food (oil/fat); Food (fruit) 3179
food additive - flavouring & spice	"Pulverized bark and leaves are utilized as spice." 1122
fuel general	„Fuel: The long-fibred wood is suitable for firewood. The shell and seeds are also used for fuel, which potters use to smooth earthenware necklaces before firing.“ 8757
material - colouring, dye, varnish	"production of varnish" 1122
	"The bark is used for tanning. The roots contain a red dyestuff." 1122

	„Tannin or dyestuff: The wood contains some tannins, and the acid pith is used to coagulate rubber. In East Africa, the roots produce a useful red dye.“	8757
	Mater. (tannin/dyestuff)	3179
material - fiber	„Fibre: The bark from the lower part of the stem of younger trees and of the roots can be removed to produce a valuable fibre. If managed properly the trees are not seriously damaged, and even after repeated use the bark regenerates and can be stripped again some years later. It is used to make excellent cordage, ropes, harness straps, mats, snares and fishing lines, fibre cloth, musical instrument strings tethers, bed-springs and bow strings. In both Senegal and Ethiopia, the fibres are woven into waterproof hats that may also serve as drinking vessels. The fibre is the best for making the famous 'kiondo' baskets of Kenya. Strong, tough and tear-resistant paper is produced from the fibre. It is commercially exploited in India for currency notes.“	8757
	Mater. (fiber)	3179
material - general	"Nets, rope, baskets, strings and paper are produced from the firm bark fibres. The light and soft wood is used in boatbuilding and to make swimmers for fishing nets. The hard fruitshell can be used as pot, hollow stems as water reservoir."	1122
	"The shell can be used as a dish, water dipper, vessel for liquids, snuffbox, fishing float; it also makes an excellent rat trap."	8757
	„Gum or resin: Glue can be made by mixing flower pollen with water.“	8757
	Mater. (lipids)	3179
material - timber, wood products	„Timber: The wood is whitish, spongy and light (air-dried 320 kg/cubic m). It is used for making canoes, rafts, insulating boards, wooden platters and trays, boxes and floats for fishing nets.“	8757
medicine - general	"Roots, bark, leaves, fruits and seeds are used medicinally for an enormous range of ailments, among the more common of which are iron deficiency, digestive system disorders, infections and skin disorders. Baobab is used in both human and veterinary treatments."	1192
	„Medicine: Hyposensitive and antihistamine properties are present in the leaves, which are used to treat kidney and bladder diseases, asthma, general fatigue, diarrhoea, insect bites, and guinea worm. Leaf and flower infusions are valued for respiratory problems, digestive disorders and eye inflammation. The seed paste is used for curing tooth and gum diseases. The fruit pulp, seed and bark are reputedly an antidote to Strophanthus poisoning. Gum from the bark is used for cleansing sores. It is also used as an expectorant and a diaphoretic. The bark is used in steam baths for calming shivering and high fever. A decoction of the roots is taken as a remedy for lassitude impotence and kwashiorkor. The bark is boiled and taken as a cure for body pains. This infusion is also used to treat colds, fever and influenza. Seeds are used to cure gastric, kidney and joint diseases; they are roasted then ground and the powder smeared on the affected part or drunk in water.“	8757
medicine - traditional herbal medicine	"Bark, leaves and fruits are also traditional medicines."	1122
	Medic. (folklore)	3179
social use - cosmetics	"production of soap"	1122
	"The pulp extract can be used as a hair wash.“	8757
social use - general	"Baobab also has some perceived magical uses. For example, it is said that a decoction of the seeds will protect you against crocodiles and that flowers are inhabited by spirits."	1192
social use - stimulants	"The powdered husk or penducule may be smoked as a tobacco substitute or added to snuff to increase pungency."	8757

### **Purpose: Standardized Use Fields**

<b>Purpose: Fields of Use</b>	<b>Frequency</b>
<multiple>	2
animal food - bee plant	1
animal food - general	2
animal poison	1
environmental use - general	1
environmental use - horticulture	3
food - beverage	3
food - general	6
food additive - flavouring & spice	1
fuel general	1
material - colouring, dye, varnish	4
material - fiber	2
material - general	4
material - timber, wood products	1
medicine - general	2
medicine - traditional herbal medicine	2
social use - cosmetics	2
social use - general	1
social use - stimulants	1



## Purpose: Number of Use Fields

### Purpose: Number of use fields

Taxon used in 18 different standardized use categories (max. 27 categories possible).

## Plant Parts Used

Plant Part (standardized)	Plant Part (free text)	Remark	Ref
bark			1150 Prot4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>
bark			8260 Gurib-Fakim, A. & Brendler, T. (2004): Medic
bark			3181 Kamatou, G.P.P., Vermaak, I. & Viljoen, A.M
fruit	Fruit		3221 Goraya, G.S. & Ved, D.K. (2017): Medicinal p
fruit			1150 Prot4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>
fruit			8260 Gurib-Fakim, A. & Brendler, T. (2004): Medic
fruit			3181 Kamatou, G.P.P., Vermaak, I. & Viljoen, A.M
leaf			1150 Prot4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>
leaf			3181 Kamatou, G.P.P., Vermaak, I. & Viljoen, A.M
seed			1150 Prot4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>
seed			3181 Kamatou, G.P.P., Vermaak, I. & Viljoen, A.M
wood			1150 Prot4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>

## Scale and Trend of Trade

ICC	Trade Trend	Ref
	"Baobab is highly sought after in several market segments such as food and beverages (Germany, France and The Netherlands), botanical remedies (Germany, France and The Netherlands) and nutraceuticals as well as natural cosmetics (EU, USA and Japan) [...]. Baobab fruit is an ideal candidate in the functional food market as it is very high in vitamin C and the powder may be used as a thickener due to its high pectin and fibre content. The import value of the product class of rare edible dried fruit, which includes baobab fruit pulp, grew by 13% in 2003"	3181 Kamatou, G.P.P., Vermaak, I. & Viljoen, A.M. (2011): An updated review of <i>Adansonia digitata</i> . A commercially important African tree. South African Journal of Botany 77: 908-919.
	"global demand for baobab raw material (e.g. seed oil, fruit pulp) by the food and beverage, nutraceutical and cosmetic industries has increased dramatically in recent years thereby increasing the commercial value and importance of this coveted African tree. In the past few years, there has been an increased demand for non-timber forest products (NTFPs), specifically baobab seed oil for inclusion in cosmetic formulations due to its high fatty acid composition."	3181
	"In the past decade, it has attracted the interest of several pharmaceutical companies and researchers due to its various traditional uses (medicinal, nutritional and cosmetic)."	3181
	"Local and international markets are likely to be able to absorb considerable quantities of produce."	1150 Prot4U - <a href="https://prota.prota4u.org/">https://prota.prota4u.org/</a>
	"Recently in the Western world, commercial interest has grown for applications in the health food and cosmetics industries. In Zimbabwe small-scale industrial production of fruit pulp and oil takes place. In Malawi fruit juice of baobab is produced commercially. Seeds are exported from East Africa to the Arab world and the Middle East for use as snacks. No statistics are available on production or trade."	1150
	"Recently, the demand for baobab products was growing in Europe and North America where the fruit pulp is marketed as a super food due to its nutritious characteristics. Already in 2013, more than 300 baobab products were reported in Europe, and a future increasing demand can be expected."	3189 Jäckering, L., Fischer, S. & Kehlenbeck, K. (2019): A value chain analysis of baobab ( <i>Adansonia digitata</i> L.) products in eastern and coastal Kenya. Journal of Agriculture and Rural Development in the Tropics and Subtropics 120(1): 91-104. Retrieved from <a href="https://kobra.uni-kassel.de/bitstream/handle/123456789/11357/JARTSVol120No1S091.pdf?sequence=1&amp;isAllowed=y">https://kobra.uni-kassel.de/bitstream/handle/123456789/11357/JARTSVol120No1S091.pdf?sequence=1&amp;isAllowed=y</a> , viewed: 06.12.2022.
	"The current and potential market for baobab fruit pulp can be divided into the following segments: Food and beverages, Botanical remedies and nutraceuticals, Natural cosmetics. Due to the increased demand for health and natural products, in all three market segments, the demand for organically certified and fair trade products will grow."	3190 Gruenwald, J. & Galizia, M. (2005): Market Brief in the European Union for selected natural ingredients derived from native species. <i>Adansonia digitata</i> L. Baobab. United Nations Conference on Trade and Development, Geneva. Retrieved from <a href="https://www.abs-biotrade.info/fileadmin/Downloads/Value_Chains/Baobab/Market-Brief-in-the-European-Union-Baobab-UNCTAD-2005.pdf">https://www.abs-biotrade.info/fileadmin/Downloads/Value_Chains/Baobab/Market-Brief-in-the-European-Union-Baobab-UNCTAD-2005.pdf</a> , viewed: 06.12.2022.
	"the major trend found is that baobab fruit pulp is rich in vitamin C and the anti-oxidant capacity of the fruit pulp is greater than that of other common fruits known for high anti-oxidant activity. Baobab fruit pulp has been approved by statutory bodies for use in certain nutritional products. Although no recent turnover figures for baobab products could be located, it is certain that commercialisation of baobab products (e.g. seed oil, fruit pulp) has increased especially after the FDA and EU have recognised the fruit pulp as [a] food supplement. The global demand for baobab has increased dramatically as more sectors, such as the cosmetic industry, developed an interest in this multipurpose plant"	3181 Kamatou, G.P.P., Vermaak, I. & Viljoen, A.M. (2011): An updated review of <i>Adansonia digitata</i> . A commercially important African tree. South African Journal of Botany 77: 908-919.

## Utilization: Commodity, Cultivation, Harvest, Sustainability, Trade

Type	ICC	Utilization	Ref
com		"In the Sahel 4 types of baobab are distinguished: 'black-bark', 'red-bark', 'grey-bark' and 'dark-leaf'. The 'dark-leaf' type is preferred for use as a leaf vegetable, the 'grey-bark' type is used for fibre, and the others are preferred for the fruits. In Sudan size, shape and taste of the fruits differ between areas. In Kenya 3 types are distinguished, based on sweetness of the fruit, shape of the tree, size and shape of the fruit, and season of flowering."	1150 Prot4U - <a href="https://prota.prota4u">https://prota.prota4u</a>
cul		"Cultivated in its native area and in South America, West Indies, India, Bangladesh, Sri Lanka and Java"	1122 Mansfeld's World Database of
cul		"Cultivated: Africa; South America; Asia-Tropical: Indian Subcontinent: Bangladesh; India; Sri Lanka; Malesia: Indonesia; Southern America: Caribbean: West Indies"	1100 GRIN Database (Germplasm F
cul		"In view of the long productive life of baobab it is worthwhile planting only the best seedlings. Screening of seedlings for fast growth may be a tool to increase production. Research to understand the large variation in baobab should lay the foundation for future breeding programmes. Extensive provenance testing is required. As in other tree crops, breeding will be a long-term undertaking. In the short term the best strategy will be vegetative multiplication of superior trees."	1150 Prot4U - <a href="https://prota.prota4u">https://prota.prota4u</a>
cul		"The baobab has not been commercially domesticated and there are currently no baobab plantations [...]. Throughout most of Africa, indigenous trees belong to the 'bush', are considered 'wild' and are therefore not planted."	3192 Buchmann, C., Prehsler, S., H
cul		"The species has not commonly been cultivated, partly because of the reputation for growing slowly."	3190 Gruenwald, J. & Galizia, M. (20
cul	BF	cultivated	3145 Brinckmann, J.A., Kathe, W.,
cul	IN	cultivated	3145
cul	IN	cultivated	3221 Goraya, G.S. & Ved, D.K. (201
cul	KE	"baobab is only harvested from wild trees and domestication of the species may increase quantity and quality of baobab fruit pulp for domestic and export markets. Some scientific activities on baobab domestication have been performed in Kenya,"	3189 Jäckering, L., Fischer, S. & Ke
cul	LK	cultivated	3145 Brinckmann, J.A., Kathe, W.,
cul	ML	Agroforestry; Samanko & Cinzana & Baguineda	3145
cul	NG	Agroforestry; Katsina State	3145
cul	SD	cultivated	3145
cul	TZ	cultivated: West Usambara Mountains, northern Tanzania	3145
cul	ZA	Natural Fostering; Limpopo Province	3145
har		"An average mature tree produces about 200 kg of fruit per year."	1150 Prot4U - <a href="https://prota.prota4u">https://prota.prota4u</a>
har		"Harvesting leaves and fruits is done by climbing the tree."	1150
har		"La production moyenne par arbre est 35,5 kg de fruits en zone soudano-sahélienne contre 64,9 kg de fruits en zone soudano guinéenne. La moyenne de 46,7 kg de fruits par arbre correspond à une production de pulpe de 28,28 kg par arbre."	3193 Sanogo, D., Badji, M., Diop, M
har		"The bark is removed by stripping after horizontal and vertical cuts have been made. Bark regrows and can be harvested again after several years."	1150 Prot4U - <a href="https://prota.prota4u">https://prota.prota4u</a>
socu		"Approving baobab fruit pulp as a novel food opens the door of the European market to the African export of fruit pulp from the baobab tree. Although this seems a good opportunity for economic growth in baobab exporting countries, a successful resource commercialization does not necessarily stimulate local development and reduce poverty [...]. On the contrary there is likely to be substantial inequality in the distribution of commercialization benefits."	3192 Buchmann, C., Prehsler, S., H
socu		"Common trade routes were often based on the baobab trees growing along the way, and each tree even had its own name."	1192 Plants of the World Online (PC
socu		"In rural West Africa the multipurpose baobab is used extensively for subsistence. Three hundred traditional uses of the baobab were documented in Benin, Mali, and Senegal across 11 ethnic groups and 4 agroecological zones. [...] The export of baobab fruits could negatively influence livelihoods, including reduced nutritional intake, change of power relations, and access rights."	3192 Buchmann, C., Prehsler, S., H
socu		"In vielen Dörfern Afrikas ist der Baobab Zentrum des täglichen Lebens. Er dient oft als besonderer Platz für Märkte, Verhandlungen oder andere soziale Ereignisse. Wie kein anderer Baum Afrikas steht er im Mittelpunkt von Legenden und Sagen. Als Sitz von Göttern und Geistern spielt er in der Mythologie verschiedener Völker eine wichtige Rolle."	7196 Schütt, Weisgerber, Schuck, L
socu		"In Westafrika wird der Baobab 'Mutter des Sahel' genannt."	7196
socu		"Large baobab trees with hollow stems have been used by people for centuries for various purposes including houses, prisons, pubs, storage barns, and even as bus stops! A big tree in the old Transvaal region is recorded as once being used as a dairy. Another tree near Leydsdorp was used as a bar (known as the Murchison Club) and utilized by prospectors and miners during the gold rush of the late 19th century. One such tree in the Caprivi Strip was converted into a toilet, complete with a flushing system."	1158 Plants of southern Africa - <a href="http">http</a>

socu		"Rainwater often collects in the clefts of the large branches, and travelers and local people often use this valuable source of water. It has been recorded that in some cases the centre of the tree is purposely hollowed out to serve as a reservoir for water during the rainy season. One such reservoir was recorded as holding 4546 litres of water. A hole is drilled in the trunk and a plug inserted so that water can be easily retrieved by removing the plug."	1158	
socu		"The baobab flower is noteworthy, not only because it is large, luminous white and produced in abundance during the annual rains from spring through early autumn, but especially because of the curious way in which it is suspended upside down at the end of a long flexible stalk, coupled with the fact that it is night-blooming, odiferous, and bat pollinated."	3843	Rashford, J. (2014): The uses
socu		"The massive, usually squat cylindrical trunk gives rise to thick tapering branches resembling a root-system, which is why it has often been referred to as the upsidedown tree. There is a tale which tells of how God planted them upside-down. Many traditional Africans believe that the baobab actually grows upside-down."	1158	Plants of southern Africa - http
socu		"The name Adansonia was given to this tree to commemorate the French surgeon Michel Adanson (1727-1806); the species name digitata meaning hand-like, is in reference to the shape of the leaves."	1158	
socu		"There are many legends and superstitions surrounding the baobab tree. [...] In some parts the baobab is worshipped as a symbol of fertility. It is a belief among certain people that spirits inhabit the flowers of the baobab and that any person who picks a flower will be eaten by a lion. It is also believed that water in which the seeds have been soaked will offer protection against attack by crocodile, while sucking or eating the seeds may attract crocodiles. [...] In some areas a baby boy should be bathed in such a bark infusion, as this will make him strong; however, he should not be bathed for too long or he may become obese. It is also important that this water does not touch his head for this could cause it to swell."	1158	
socu		"Widespread and common, baobab is a defining icon of African bushland and can grow to an old age. Radiocarbon dating of a baobab in Namibia indicated an age of about 1,275 years, making this the oldest known tree within the angiosperms (flowering plants). All parts of the tree are used by local people, to whom baobab has great social and economic importance."	1192	Plants of the World Online (PC
socu	GH	"At Saakpuli (also Sakpele) in northern Ghana the site of a 19th-century slave transit camp is marked by a stand of large baobabs, to which slaves were chained. [...] The chains were wrapped around their trunks or around the roots. Similarly, two trees at Salaga in central Ghana are reminders of the slave trade. One, located at the former slave market at the center of town, was replanted at the site of the original to which slaves were shackled. A second larger tree marks the slave cemetery, where bodies of dead slaves were dumped."	1135	Wikipedia. www.wikipedia.org
socu	ZA	"A number of significantly large, historical baobab trees can be seen in the Limpopo Province: The Sagole Baobab is recorded as being the biggest tree in South Africa with a stem diameter of 10.47 m, a height of 22 m and a crown spread of 38.2 m. It grows east of Tshipise. The Glencoe Baobab near Hoedspruit is probably the second largest and bears several trunks. It has a stem diameter of 15.9 m, a height of 17 m and a crown spread of 37.05 m. This tree has dates carved on the stem from 1893 and 1896. The Platland Baobab that grows near Duiwelskloof, today houses a pub. It has a stem diameter of 10.64 m, a height of 19 m, and a crown spread of 30.2 m. The Buffesldrift Baobab which is in the Makopane District, has a distinct trunk with a diameter of 7.71 m, a height of 22 m and a crown spread of 30.2 m."	1158	Plants of southern Africa - http
socu		"The trunk tends to be bottle-shaped and can reach an impressive diameter of 10-14m."	1136	EoL - Encyclopedia of Life. htt
sus		"Baobab leaves are not picked from the shoots, but complete shoots are often broken off the tree. Such harvest technique reduces the number of flower buds, as these are either damaged or removed entirely together with the shoots."	3192	Buchmann, C., Prehler, S., H
sus		"il est possible de prédire le potentiel de production d'un baobab à partir des données morphométriques de l'arbre. Les équations de régression établies constituent des outils performants qui peuvent être utilisés par les techniciens forestiers pour évaluer la production"	3193	Sanogo, D., Badji, M., Diop, M
tra		"Baobab fruits are harvested in rural areas, especially in Malawi and Zimbabwe. Processing then takes place where the seed is separated from the pulp. The pulp is graded by particle size and the raw material is sold as such. The seeds are retained and processed into oil which is sold to cosmetic companies"	3181	Kamatou, G.P.P., Vermaak, I.
tra	IN	Estimated annual trade: <10 metric tonnes	3221	Goraya, G.S. & Ved, D.K. (201

## Legislation

## Regulation

ICC	Regulation	Ref
	"PhytoTrade Africa wish to place on the market in the European Union, dried Baobab Fruit Pulp derived from the fruits of <i>Adansonia digitata</i> for use as a nutritional food ingredient. Approval for this product is sought under the EC regulation No. 258/97 which is concerned with the introduction of novel foods and ingredients into the EU and ensures that the novel food in question is assessed for its safety prior to its introduction to the general public"	3191 Wilkinson, J. (2006): Baobab d
	"The European Commission has authorized the placing on the market of baobab ( <i>Adansonia digitata</i> L.) dried fruit pulp as a novel food ingredient on the 27th of June 2008."	3192 Buchmann, C., Prehler, S., H
	"Recently, the European Commission authorised the import of baobab fruit pulp as a novel food [...] and it was approved in 2009 by the Food and Drug Administration as a food ingredient in the United States of America"	3181 Kamatou, G.P.P., Vermaak, I.
ZA	"no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree or any forest product derived from a protected tree, except under a licence or exemption"	3841 Minister of Agriculture, Forestr
ZA	Listed as a protected tree	3841

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- 1123 Plants for a Future - [www.pfaf.org](http://www.pfaf.org)
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- 1136 EoL - Encyclopedia of Life. <http://www.eol.org/>
- 1149 African Plants Database. - <https://africanplantdatabase.ch/en>
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Abbreviations and Standards

ICC = ISO Country Codes    Ref = literature reference

Altitude:    Low / High = minimum and maximum limits of altitude range [m]

Legislation:    Source Taxon = name of taxon as contained in legislation

Utilization: TypeUtil

TypeUtil	TypeUtilLong
com	commodity
cul	cultivation
exp	export
har	harvest
imp	import
man	management
price	price
rem	remark
socu	socio-cultural significance
sus	sustainability
tra	trade
trend	trend and scale of trade

Distribution Status: Standard

Status	Explanation
chk	check entry
nat	native
int	introd., established
adv	introduced, not established
ocd	occurrence doubtful
unc	status unclear
ext	extinct
cul	cultivated
sou	source doubtful
ica	introduced (casual or naturalized)
don	doubtfully native
pex	(presumably) extinct
ali	casual alien
nzd	naturalized
nna	not native
dpn	status doubtful, possibly native
abs	absent but reported in error

Common names: Type

TypeShort	Type
?	<unknown>
ayn	ayurvedic name
hom	homoeopathic name
pha	pharmaceutical name
scn	standardized common name
tra	trade name
ver	vernacular name

Ecology: TypeEcol

TypeEcol	Explanation
alti	altitude
grow	growth rate
habit	habitat
morph	morphology
regen	regeneration
repro	reproduction