# CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES OF WILD FAUNA AND FLORA



Nineteenth meeting of the Conference of the Parties Panama City (Panama), 14 – 25 November 2022

# THE HISTORY AND CHALLENGES OF AGARWOOD AND CITES

- 1. This document has been prepared by the Royal Botanic Gardens Kew, United Kingdom of Great Britain, and Northern Ireland<sup>\*</sup>.
- 2. This document presents supporting information for the working document "The history and challenges of agarwood and CITES" CoP19 Doc 62.2.

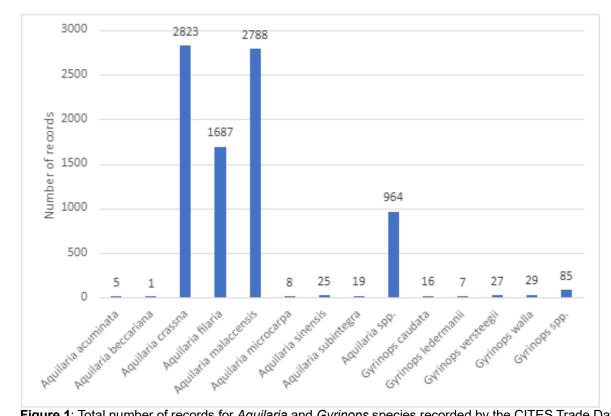
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**Annex 1**: *Aquilaria* and *Gyrinops* accepted species on the Plants of the World Online and IUCN Red List status. *Gyrinops* assessments are provisional and have been submitted to IUCN (POWO 2021; IUCN 2022)

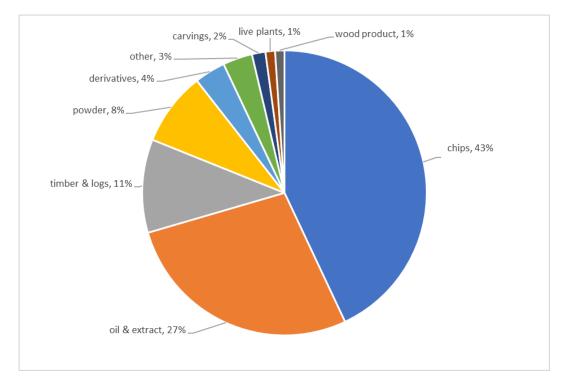
Species name	Red List Status	Year assessment published
Aquilaria apiculata	Data Deficient	2018
Aquilaria baillonii	Data Deficient	2018
Aquilaria banaense	Vulnerable	2018
Aquilaria beccariana	Vulnerable	2018
Aquilaria brachyantha	Data Deficient	2018
Aquilaria citrinicarpa	Data Deficient	2018
Aquilaria crassna	Critically Endangered	2018
Aquilaria cumingiana	Vulnerable	2018
Aquilaria decemcostata	Not Evaluated (assessed as part of <i>A.cumingiana</i> )	
Aquilaria filaria	Vulnerable	2018
Aquilaria hirta	Vulnerable	2018
Aquilaria khasiana	Critically Endangered	2018
Aquilaria malaccensis	Critically Endangered	2018
Aquilaria microcarpa	Endangered	2018
Aquilaria parvifolia	Data Deficient	2018
Aquilaria rostrata	Critically Endangered	2018
Aquilaria rugosa	Vulnerable	2018
Aquilaria sinensis	Vulnerable	2018
Aquilaria subintegra	Data Deficient	2018
Aquilaria urdanetensis	Data Deficient	2018
Aquilaria yunnanensis	Vulnerable	2018
Gyrinops caudata	Vulnerable	Provisional, submitted to IUCN
Gyrinops decipiens	Endangered	Provisional, submitted to IUCN
Gyrinops ledermannii	Endangered	Provisional, submitted to IUCN
Gyrinops moluccana	Endangered	Provisional, submitted to IUCN
Gyrinops podocarpa	Vulnerable	Provisional, submitted to IUCN
Gyrinops salicifolia	Endangered	Provisional, submitted to IUCN
Gyrinops versteegii	Vulnerable	Provisional, submitted to IUCN
Gyrinops vidalii	Critically Endangered	Provisional, submitted to IUCN
Gyrinops walla	Vulnerable	Provisional, submitted to IUCN

**Annex 2:** Figures summarising legal trade of *Aquilaria* and *Gyrinops* from CITES Trade Database data (accessed 14<sup>th</sup> April 2022).

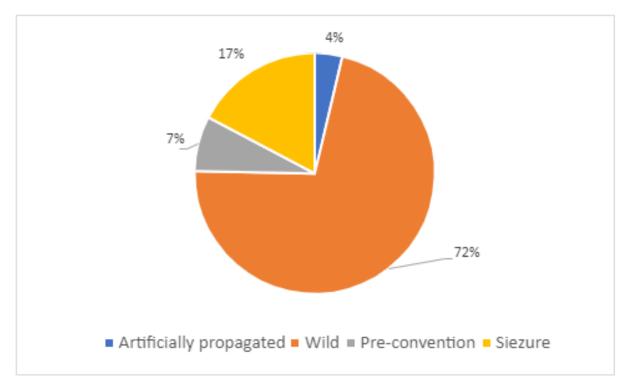
Data was searched on the CITES Trade Database for the years 2011-2020. There were 8484 records during this period for both genera, 1216 records had quantities recorded by both the importer and exporter countries, 5316 records had quantities recorded by the exporter but no quantities recorded from the importer, whilst 1952 records had quantities recorded by the importer, but no quantities recorded from the exporter. Due to these differences overall trade is difficult to accurately quantify and analyse, and the figures below are either based on all records or only those records with quantities recorded by importers. Also due to the variety of products traded internationally and the different units used, analysing the total quantity of agarwood in trade is difficult.



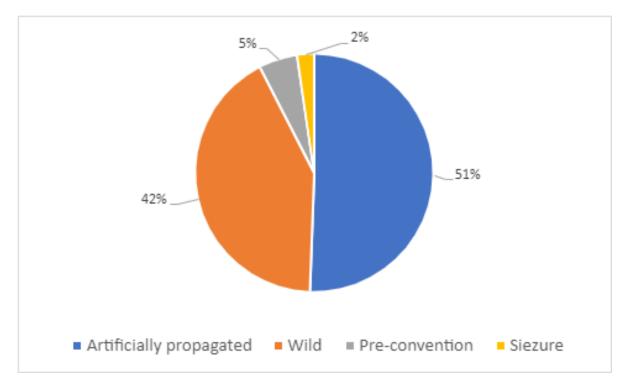
**Figure 1**: Total number of records for *Aquilaria* and *Gyrinops* species recorded by the CITES Trade Database 2011-2020 (based on all records).



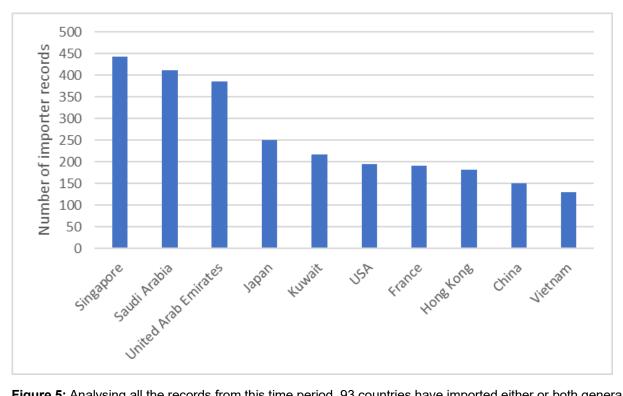
**Figure 2:** Types of commodities of *Aquilaria* and *Gyrinops* recorded in the CITES Trade Database 2011-2020 (based on all records). "Other" includes bark, cosmetics, dried plants, flowers, gall, jewellery, leaves, medicine, roots, seeds, specimens, stems, unspecified specimens, veneer and wax. "Timber & logs" includes timber, timber pieces, logs and sawn wood.



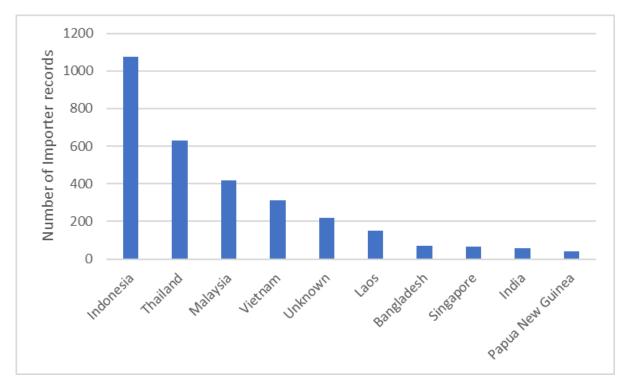
**Figure 3:** Source of *Gyrinops* recorded by Importers in the CITES Trade Database 2011-2020. Seizure data is likely to be an underestimate as only a few countries have submitted seizure data for *Gyrinops* 



**Figure 4**: Source of *Aquilaria* reported by Importers in the CITES Trade Database 2011-2020. Seizure data is likely to be an underestimate as only a few countries have submitted seizure data for *Aquilaria*.

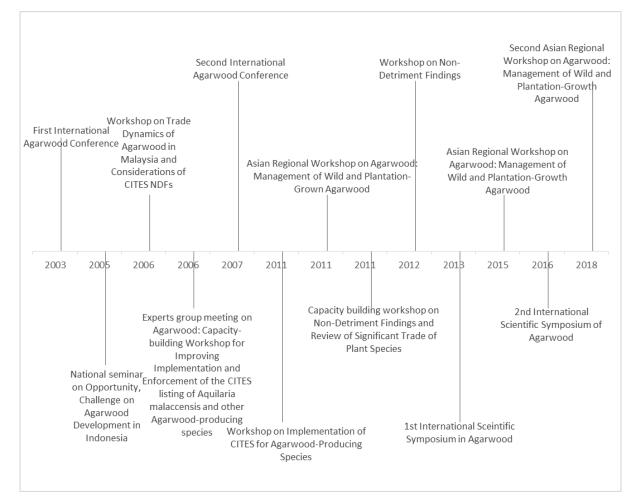


**Figure 5:** Analysing all the records from this time period, 93 countries have imported either or both genera, with many of the countries having only imported small quantities. However, only looking at records with quantities recorded by importers, only 39 countries are listed, with the top 10 countries displayed in this graph. Although there is this difference in the data the top 10 importers when analysing all records is Saudi Arabia, United Arab Emirates, Singapore, Kuwait, China, Japan, Taiwan, USA, Hong Kong and France, which is very similar to Figure 5.



**Figure 6**: Main country of origin of *Aquilaria* and *Gyrinops* as recorded by Importers in the CITES Trade Database 2011-2020 (based on Importer records with country of origin recorded, or if no country of origin the exporter country).

# **Annex 3**: Timeline of key workshops and meetings concerning the conservation and management of agarwood-producing species, and year they were held



Annex 4: History of CITES annotations for *Aquilaria* and *Gyrinops* with the date the annotation took effect and description of the annotation (Summarised from (UNEP-WCMC 2022a, b).

Date	Species	Annotation	Description	
16/02/1995	Aquilaria	#1	Designates all parts and derivatives, except:	
	malaccensis		a) seeds, pores and pollen (including pollinia); and	
			b) seedlings or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers.	
12/01/2005	Aquilaria spp. and	#1	Designates all parts and derivatives, except:	
	Gyrinops spp.		a) seeds, pores and pollen (including pollinia);	
			b) seedlings or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers; and	
			c) cut flowers of artificially propagated plants.	
13/09/2007	Aquilaria spp. and	#1	Designates all parts and derivatives, except:	
	Gyrinops spp.		a) seeds, spores and pollen (including pollinia);	
			b) seedling or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers;	
			c) cut flowers of artificially propagated plants; and	
			d) fruits and parts and derivatives thereof of artificially propagated plants of the genus Vanilla.	
23/06/2010	Aquilaria spp. and	#4	Designates all parts and derivatives, except:	
	Gyrinops spp.		a) seed (including seedpods of Orchidaceae), spores and pollen (including pollinia). The exemption does not	
			apply to seeds from Cactaceae spp. exported from Mexico, and to seeds from Beccariophoenix	
			madagascariensis and Neodypsis decaryi exported from Madagascar;	
			b) seedlings or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers;	
			c) cut flowers of artificially propagated plants;	
			d) fruits and parts and derivatives thereof of naturalized or artificially propagated plants of the genus Vanilla	
			(Orchidaceae) and of the family Cactaceae; e) stems, flowers, and parts and derivatives thereof of naturalized or artificially propagated plants of the genera	
			Optunia subgenus Opuntia and Selenicereus (Cactaceae); and	
			f) finished products of <i>Euphorbia antisyphilitica</i> packaged and ready for retail.	
12/06/2013	Aquilaria spp. and	#14	Designates all parts and derivatives, except:	
12/00/2013	Gyrinops spp.	#14	a) seeds and pollen;	
	Cynnops spp.		b) seedling or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers;	
			c) fruits;	
			d) leaves:	
			e) exhausted agarwood powder, including compressed powder in all shapes; and	
			f) finished products packaged and ready for retail trade, this exemption does not apply to beads, prayer beads	
			and carvings.	
02/01/2017	Aquilaria spp. and	#14	All parts and derivatives except:	
	Gyrinops spp.		a) seeds and pollen;	
			b) seedling or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers;	
			c) fruits;	
			d) leaves;	
			e) exhausted agarwood powder, including compressed powder in all shapes; and	

			f) finished products packaged and ready for retail trade; this exemption does not apply to wood chips, beads, prayer beads and carvings.
CoP17 Res. Conf. 13.7 (Rev. CoP17)	Aquilaria spp. and Gyrinops spp.	Explanation added to annotation #14	'Up to 1 kg of woodchips, 24 ml of oil and two sets of beads or prayer beads (or two necklaces or bracelets) per person' are exempt from regulations as personal effects'.

# Annex 5: Quota tables for Aquilaria and Gyrinops species (summarised from (UNEP-WCMC 2022c).

**Table 1**. Quotas for *Gyrinops*. "Genus *Gyrinops*" refers to quotas for *Gyrinops caudata, G. decipiens, G. ledermanii, G. moluccana, G. podocarpus, G. salicifolia and G. versteegii.* No quotas for *G.versteegii* for 2022 have been published (3<sup>rd</sup> August 2022)

Year	Country	Quota (kg)	Species or Genus	Specimen notes
2005	Indonesia	5,000	G. versteegii	
2006	Indonesia	25,000	G. versteegii	
2007	Indonesia	356,449	G. versteegii	Stockpile to be exported in 2005, 2006, 2007. Agarwood packed in sealed pouch carrying a wire-lead seal and a Management Authority stamp- quota applies to a combination of <i>Aquilara filaria</i> & <i>Gyrinops versteegii</i>
2007	Indonesia	100,000	G. versteegii	Agarwood- quota applies to combination of A. filaria and Gyrinops spp.
2008	Indonesia	22,500	Genus Gyrinops	Chips, blocks, powder & oil
2009	Indonesia	455,000	Genus Gyrinops	Agarwood (tbc)- quota applies to combination of A. filaria and Gyrinops spp.
2010	Indonesia	427,000	Genus Gyrinops	Agarwood- quota applies to combination of A. filaria and Gyrinops spp.
2011	Indonesia	473,400	Genus Gyrinops	Agarwood- quota applies to combination of A. filaria and Gyrinops spp.
2012	Indonesia	520,740	Genus Gyrinops	Agarwood- quota applies to combination of A. filaria and Gyrinops spp.
2013	Indonesia	5,000	Genus Gyrinops	
2014	Indonesia	5,000	Genus Gyrinops	
2015	Indonesia	5,000	Genus Gyrinops	
2016	Indonesia	5,000	Genus Gyrinops	
2017	Indonesia	5,000	G. versteegii	
2018	Indonesia	4,500	G. versteegii	
2019	Indonesia	3,825	G. versteegii	
2020	Indonesia	3,251	G. versteegii	
2020	Indonesia	75,000	G. decipiens	Decaying logs
2021	Indonesia	3,000	G. versteegii	

# Table 2: Quotas for Aquilaria

Year	Country	Quota (kg unless specified as other)	Species	Specimen notes
1999	Indonesia	270,000	A. malaccensis	
2002	Indonesia	75,000	A. malaccensis	
2003	Indonesia	50,000	A. malaccensis	
2004	Indonesia	50,000	A. malaccensis	
2005	Indonesia	50,000	A. malaccensis	
2005	Indonesia	356,449	A. filaria	Stockpile to be exported in 2005, 2006, 2007. Agarwood packed in sealed pouch carrying in a wire-lead seal and a Management Authority stamp
2005	Indonesia	120,000	A. filaria	
2006	Indonesia	50,000	A. malaccensis	
2006	Indonesia	356,449	A. filaria	Stockpile to be exported in 2005, 2006, 2007. Agarwood packed in sealed pouch carrying in a wire-lead seal and a Management Authority stamp
2006	Indonesia	100,000	A. filaria	
2007	Indonesia	30,000	A. beccariana, A. cumingiana, A. filaria, A. hirta, A. malaccensis, A. microcarpa, A. moszkowskii, A. secunda and A. tomentosa	Genus Aquilaria
2007	Indonesia	356,449	A. filaria	Stockpile to be exported in 2005, 2006, 2007. Agarwood packed in sealed pouch carrying in a wire-lead seal and a Management Authority stamp. Quota applies to a combination of <i>Aquilaria filaria</i> and <i>Gyrinops versteegii</i>
2007	Indonesia	100,000	A. filaria	Agarwood- quota applies to a combination of Aquilaria filaria and Gyrinops versteegii
2007	Malaysia- Sarawak	10,000	A. malaccensis	Powder & wood chips
2007	Malaysia- Peninsular & Sabah	190,000	A. malaccensis	Powder & wood chips
2008	Indonesia	27,000	A. beccariana, A. cumingiana, A. filaria, A. hirta, A. malaccensis, A. microcarpa, A. moszkowskii, A. secunda and A. tomentosa.	Genus Aquilaria
2008	Indonesia	585,000	A. filaria	Chips, blocks, powder & oil
2008	Malaysia- Sarawak	10,000	A. malaccensis	Powder & wood chips
2008	Malaysia- Peninsular & Sabah	170,000	A. malaccensis	Powder & wood chips
2009	Indonesia	173,250	A. beccariana, A. cumingiana, A. filaria, A. hirta, A. malaccensis, A. microcarpa, A. moszkowskii, A. secunda and A. tomentosa.	Genus Aquilaria

Year	Country	Quota (kg unless specified as other)	Species	Specimen notes
2009	Indonesia	455,000	A. filaria	Agarwood (tbc)- quota applies to a combination of Aquilaria filaria and Gyrinops versteegii
2009	Malaysia- Sarawak	5,000	A. malaccensis	Powder & wood chips
2009	Malaysia- Peninsular & Sabah	200,000	A. malaccensis	Powder & wood chips
2010	Indonesia	146,250	A. beccariana, A. cumingiana, A. filaria, A. hirta, A. malaccensis, A. microcarpa, A. moszkowskii, A. secunda and A. tomentosa.	Genus Aquilaria
2010	Indonesia	427,000	A. filaria	Agarwood- quota applies to a combination of Aquilaria filaria and Gyrinops versteegii
2010	Malaysia- Sarawak	5,000	A. malaccensis	Powder & wood chips
2010	Malaysia- Peninsular & Sabah	200,000	A. malaccensis	Powder & wood chips
2011	Indonesia	162,256	A. beccariana, A. cumingiana, A. filaria, A. hirta, A. malaccensis, A. microcarpa, A. moszkowskii, A. secunda and A. tomentosa.	Genus Aquilaria
2011	Indonesia	473,400	A. filaria	Agarwood- quota applies to a combination of Aquilaria filaria and Gyrinops versteegii
2011	Malaysia- Sarawak	5,000	A. malaccensis	Powder & wood chips
2011	Malaysia- Peninsular & Sabah	200,000	A. malaccensis	Powder & wood chips
2012	Indonesia	178,482	A. beccariana, A. cumingiana, A. filaria, A. hirta, A. malaccensis, A. microcarpa, A. moszkowskii, A. secunda and A. tomentosa.	Genus Aquilaria
2012	Indonesia	520,740	A. filaria	Agarwood- quota applies to a combination of Aquilaria filaria and Gyrinops versteegii
2012	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus Aquilaria
2012	Malaysia- Peninsular & Sabah	200,000	A. malaccensis	Wood chips, wood blocks & essential oil
2013	Indonesia	178,500	A. beccariana, A. cumingiana, A. filaria, A. hirta, A. malaccensis, A. microcarpa, A. moszkowskii, A. secunda and A. tomentosa.	Genus Aquilaria
2013	Indonesia	515,800	A. filaria	
2013	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus Aquilaria
2014	Indonesia	178,500	A. filaria and A.beccariana	Wood chips, wood blocks & essential oil Genus Aquilaria
2014	Indonesia	515,800	A. filaria	

Year	Country	Quota (kg unless specified as other)	Species	Specimen notes
2014	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus Aquilaria
2014	Malaysia-Peninsular & Sabah	200,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus <i>Aquilaria</i>
2015	Indonesia	178,500	A.filaria and A.beccariana	Wood chips, wood blocks & essential oil Genus Aquilaria
2015	Indonesia	515,800	A. filaria	
2015	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Wild specimens ( <i>A. rostrata</i> ) Genus <i>Aquilaria</i>
2015	Malaysia-Peninsular & Sabah	200,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus <i>Aquilaria</i>
2016	Indonesia	178,500	A.filaria and beccariana	Wood chips, wood blocks & essential oil Genus Aquilaria
2016	Indonesia	515,800	A. filaria	
2016	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Wild specimens ( <i>A. rostrata</i> ) Genus <i>Aquilaria</i>
2016	Malaysia-Peninsular & Sabah	150,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus <i>Aquilaria</i>
2017	Indonesia	178,500	A. malaccensis	
2017	Indonesia	515,800	A. filaria	
2017	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Wild specimens ( <i>A. rostrata</i> ) Genus <i>Aquilaria</i>
2017	Malaysia-Peninsular & Sabah	150,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus <i>Aquilaria</i>
2018	Indonesia	151,725	A. malaccensis	
2018	Indonesia	490,010	A. filaria	
2018	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Wild specimens ( <i>A. rostrata</i> ) Genus <i>Aquilaria</i>
2018	Malaysia-Peninsular & Sabah	150,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus <i>Aquilaria</i>

Year	Country	Quota (kg unless specified as other)	Species	Specimen notes
2019	Indonesia	116,069	A. malaccensis	
2019	Indonesia	490,010	A. filaria	
2019	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil Genus Aquilaria
2019	Malaysia-Peninsular & Sabah	150,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil. Wild specimens Wild specimens ( <i>A. beccariana, A. filaria and A. malaccensis</i> ) Genus <i>Aquilaria</i>
2020	Indonesia	101,000	A. malaccensis	
2020	Indonesia	490,010	A. filaria	
2020	Lao PDR	523.602	A.crassna	Wood powder, artificially propagated for commercial purposes
2020	Lao PDR	208 L	A.crassna	Wood oil, artificially propagated for commercial purposes
2020	Lao PDR	12,178.02	A.crassna	Wood chips, artificially propagated for commercial purposes
2020	Lao PDR	119.014 m3	A.crassna	Logs, artificially propagated for commercial purposes
2020	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil. Wild specimens Genus Aquilaria
2020	Malaysia- Peninsular	150,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil. Wild specimens Genus Aquilaria
2021	India	1,500	A. khasiana & A. malaccensis	Agar oil Genus <i>Aquilaria</i>
2021	India	25,000	A. khasiana & A. malaccensis	Agarwood, chips and powder- artificially propagated Genus Aquilaria
2021	Indonesia	101,000	A. malaccensis	
2021	Indonesia	490,010	A. filaria	
2021	Lao PDR	75,700	A.crassna	Wood powder, artificially propagated for commercial purposes
2021	Lao PDR	2,770 L	A.crassna	Wood oil, artificially propagated for commercial purposes
2021	Lao PDR	62,950	A.crassna	Wood chips, artificially propagated for commercial purposes
2021	Lao PDR	7,050 m3	A.crassna	Logs, artificially propagated for commercial purposes
2021	Malaysia- Sarawak	5,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata a	Wood chips, wood blocks & essential oil. Wild specimens Genus Aquilaria
2021	Malaysia- Peninsular	150,000	A. beccariana, A. filaria, A. hirta, A. microcarpa and A. rostrata	Wood chips, wood blocks & essential oil. Wild specimens Genus Aquilaria
2022	Lao PDR	42,000	A.crassna	Wood powder, artificially propagated for commercial purposes
2022	Lao PDR	1,910 L	A.crassna	Wood oil, artificially propagated for commercial purposes
2022	Lao PDR	134,000	A.crassna	Wood chips, artificially propagated for commercial purposes

Year	Country	Quota (kg unless specified	Species	Specimen notes
2022	Lao PDR	as other) 7.600 m3	A.crassna	Logs, artificially propagated for commercial purposes
2022	Malaysia- Sarawak	5.000	A. beccariana, A. filaria, A. hirta, A. microcarpa	Wood chips, wood blocks & essential oil. Wild specimens
2022	malayola Galamak	0,000	and A. rostrata	Genus Aquilaria
2022	Malaysia- Peninsular	50,000	A. beccariana, A. filaria, A. hirta, A. microcarpa	Wood chips, wood blocks & essential oil. Wild specimens
			and A. rostrata	Genus Aquilaria

## Annex 6: Conservation management legislation for agarwood

An online literature search for documents on national legislation on agarwood in range States was undertaken. Only documents in English are include but we acknowledge that range States may have other documentation not available on the internet, or in another language. Countries are presented alphabetically. Excerpts from legislation relevant to agarwood has been extracted and are presented as bullet points for each country.

## Bangladesh

• Yearly harvest from plantations are not recorded (Mahmood et al. 2021).

#### Bhutan

• There has been a ban on Agarwood export since 1990. Bhutan has also placed Agarwood in *Schedule I of Forest and Nature Conservation Rules and Regulation 2017* (CITES 2003a; Rabgay et al. 2020).

#### Cambodia

- Illegal to fell a tree in a protected area
- In 2006, banned all logging in natural forests for commercial purposes except for use by local communities and private forest that is registered by the government. Government has prohibited export of the following products (timber and NTFP for export and import):
  - Logs whether debarked or not
  - Crude or rough sawn timber
  - Squared logs with a thickness or width of more than 25cm, even when smoothed
  - Fire and charcoal from natural forests (TTP 2022).

#### China

• A.sinensis has been listed in the second-class category of the National List of Local Protected Flora as issued by the Chinese government (Yin et al. 2016).

#### India

- The export of *A. malaccensis* was prohibited in 1991, however the export of oil is allowed, which included wild sourced oil as was detailed in CITES data 1999 and 2000 (CITES 2003a).
- India does not permit harvesting of wild Agarwood- producing species (CITES 2011).
- Each State in India has different measures for protecting agarwood-producing species:
  - Harvesting *A. malaccensis* from Arunachal Pradesh, Assam and Meghalaya is prohibited due to State bans (*Indian Forest Act 1927*).
  - Harvesting in Manipur is restricted by an administrative order.
  - In Tripura, since 1994, harvesting from government lands has been prohibited, but private lands allowed with a harvesting permit.
  - Mizoram and Nagaland leased harvesting privileges; Mizoram from 1990-1993 and Nagalan from 1991-1992. It is unknown if these were renewed (Barden et al. 2000; CITES 2003a).

## Indonesia

• Agarwood use is regulated by Decree No.8/1999 on Wild Flora and Fauna Exploitation (Barden et al. 2000). Permits are required to harvest agarwood from State forests (*Forestry Regulation No. 28* of 1985). It is mentioned in the Review of Significant Trade for *A. malaccensis* that harvest quotas are distributed among Regional Forest Offices in regions where agarwood is produced, who then distribute the quotas amongst traders (CITES 2003a).

#### Lao PDR

Aquilaria spp. Is protected by Lao PDR's Forestry Law 2019. It appears on Tree List I (updated 2021- Decision No. 0448/MAF/2021) (MOAF 2021). Tree list I: "refers to species that are rare, have medicinal properties, are at risk of extinction, grow or can be cultivated only in a particular area, have slow growth, have a unique wood texture, and produce a highly durable wood" (LNA 2019).

#### Malaysia

- The Government requires permits from each State Forestry Department to harvest and trade agarwood and harvesting from National Parks is prohibited (CITES 2003a).
- Peninsular Malaysia *National Forestry Act 1984* prohibits felling of *A. malaccensis* from State Forests or Permanent Forest Estates. A 'removal of minor forest product' permit is required to harvest all *Aquilaria* spp. There is also an additional royalty fee on top of the collector's fee for all *Aquilaria* spp. (Barden et al. 2000; CITES 2003a).
- Sarawak- A. malaccensis, A. beccariana an A. microcarpa are protected under the Wildlife Protection Ordinance 1998 and Forest Ordinance 1958. Harvesting from National Parks or wildlife sanctuaries is prohibited under Wildlife Protection Ordinance 1998 and National Parks and Reserved Ordinance 1998 unless a license has been issued (Barden et al. 2000; CITES 2003a).
- Sabah- A. malaccensis felling is subject to Forest Enactment 1968. Harvesting from State Land is prohibited by Parks Enactment Act 1984. Searching and harvesting for CITES listed plants requires a plan collection license, issued by the director of the Sabah wildlife department under wildlife conservation bill (Barden et al. 2000).

#### Myanmar

• Harvest of all Aquilaria is prohibited under the protection of Wildlife and wild plants and conservation of natural areas law 1994 (Barden et al. 2000).

#### Papua New Guinea

• It has been stated that no specific national protection of agarwood-producing species is in place (Zich & Compton 2002), however, the National Forest Service has specified that to export agarwood, a certificate of company registration is needed, along with a forest industry participant certificate, a timber license (plus PGK50,000 bond) and an export license.

#### Philippines

• Permits are needed to harvest and export raw and processed agarwood –Executive Order no 247 and act 3983. Regulate harvest and trade of all protected wild plants (Barden et al. 2000).

#### Singapore

• The harvest of *A. malaccensis* is prohibited, as the species is protected under the *Singapore National Parks Act.* (CITES 2003b).

# Sri Lanka

- It is prohibited to strip bark or leaves from, or girdle, lop, tap, burn or other damage any tree in a reserved forest. It is prohibited to fell, cut, saw, convert, collect, remove or transport any trees or timber or collect, remove or transport any forest produce or has in his possession, custody or control any tree, timber or forest produce (UNDRR 2022).
- In conservation forests, fells, cuts, marks, lops, girdles, saw converts, collects or removal any plant, tree or any other forest produce or wilfully strips off the bark or from, or otherwise damages or interferes with, any trees. These rules can be done in regulation from the Minister or permission in writing from a forest officer empowered by the minister (UNDRR 2022).

#### Thailand

• CITES requirements for *Aquilaria malaccensis* are implemented in Thailand by the Plants Act, B.E. 2535 of 1992, which prohibits the import, export and trans-shipment of all CITES-listed plants, except with the permission of the Agriculture Director-General. The Plants Act regulates the artificial propagation of CITES-listed plants through a nursery registration system (Barden et al. 2000; CITES 2003b).

#### Viet Nam

- Only the harvesting and trade of *A. crassna* is prohibited in Vietnam, by Decree No. 18 (HDBT) Vietnam Wildlife Protection, 1992.
- The Chairman of the Council of Ministers, in accordance with the Minister of Forestry, may permit the exploitation of *A. crassna* under special circumstances, such as scientific research.
- The export of agarwood oil is not prohibited (Barden et al. 2000).

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