

UNEP-WCMC Technical Report

SELECTION OF SPECIES FOR INCLUSION IN THE REVIEW OF SIGNIFICANT TRADE FOLLOWING COP18:

Extended Analysis

Selection of species for inclusion in the Review of Significant Trade following CoP18: Extended analysis

Prepared for
CITES Secretariat

Published
May 2020

Citation

UNEP-WCMC. 2020. Selection of species for inclusion in the Review of Significant Trade following CoP18: Extended analysis. UNEP-WCMC, Cambridge.

Copyright

CITES Secretariat, 2020

The UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) is a global Centre of excellence on biodiversity. The Centre operates as a collaboration between the UN Environment Programme and the UK-registered charity WCMC. Together we are confronting the global crisis facing nature.

This publication may be reproduced for educational or non-profit purposes without special permission, provided acknowledgement to the source is made. Reuse of any figures is subject to permission from the original rights holders. No use of this publication may be made for resale or any other commercial purpose without permission in writing from the UN Environment Programme. Applications for permission, with a statement of purpose and extent of reproduction, should be sent to the Director, UNEP-WCMC, 219 Huntingdon Road, Cambridge, CB3 0DL, UK.

The contents of this report do not necessarily reflect the views or policies of the UN Environment Programme, contributory organisations or editors. The designations employed and the presentations of material in this report do not imply the expression of any opinion whatsoever on the part of the UN Environment Programme or contributory organisations, editors or publishers concerning the legal status of any country, territory, city area or its authorities, or concerning the delimitation of its frontiers or boundaries or the designation of its name, frontiers or boundaries. The mention of a commercial entity or product in this publication does not imply endorsement by the UN Environment Programme.



UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC)
219 Huntingdon Road, Cambridge CB3 0DL, UK, Tel: +44 1223 277314
www.unep-wcmc.org

UNEP promotes environmentally sound practices globally and in its own activities. Our distribution policy aims to reduce UNEP's carbon footprint.

Contents

Introduction	3
Methodology	4
Species selection results	9
Appendix 1: Comparison of methods.....	22
Appendix 2: ISO codes and country and territory names.....	24

Introduction

To comply with Stage 1 a) of Resolution Conf. 12.8 (Rev. CoP18) and the *Guidance regarding the selection of species/country combinations* outlined in Annex 2 of the Resolution, the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC) has produced this **extended analysis** to assist the Plants Committee with their work in selecting species for inclusion in the Review of Significant Trade following CoP18.

A **summary output**, providing trade in wild, source unknown, trade without a source specified, and trade reported using source code R¹ over the five most recent years (2014-2018), to accompany this analysis, is provided in PC25 Doc. 15.4 Annex 1.

Extended Analysis

The **extended analysis** uses five criteria to identify species that show noteworthy patterns of trade. Full details of the methodology for the extended analysis for the selection of candidate species for consideration in the Review of Significant Trade following CoP18 are provided on page 4. The results of the analysis are provided in Table 2 (page 10). In total, 123 plant taxa met one or more of the five criteria as part of the extended analysis.

Revisions to the extended analysis methodology were introduced at AC29 for animals and PC23 for plants (AC29 Doc. 13.3 Annex 2 (Rev. 1)/PC23 Doc. 15.3 Annex 2) based on the recommendations of the Advisory Working Group of the Evaluation of the Review of Significant Trade. For the “High Volume (globally threatened)” criterion within these outputs, relative trade volume was calculated for species included in Threatened categories on the IUCN Red list of Threatened Species by multiplying actual trade volume by a factor 10 to account for global threat status. At AC29, the Animals Committee suggested refining the weighting applied to individual species according to their threat status for the calculation of the “High Volume (globally threatened)” criterion rather than using a general “x10” multiplier (AC29 Summary Record); this proposed method would also be relevant for plants. To test the effect of different weightings, two methods were directly compared using the dataset included in the extended analysis following CoP17. The results are provided in Appendix 1.

On the basis that the proposed method of stratifying the weighting depending on threat status selected a higher number of species assessed as Least Concern and fewer globally threatened species (see Appendix 1), it was decided, in consultation with the Secretariat, to retain the original method of weighting all globally threatened species (including NT and DD) equally. It should also be noted that some IUCN assessments are outdated and need re-assessment, and that the IUCN Red List guidelines indicate that IUCN Red List status should not be used for setting priorities².

¹ Refers to ‘ranching’, which is typically used for animals

² Section 2.4 of the IUCN Guidelines for Using the IUCN Red List Categories and Criteria (Version 14). Available at <https://www.iucnredlist.org/resources/redlistguidelines>

Methodology

Data used

Data were extracted from the CITES Trade Database (trade.cites.org) on 12th March 2020. Details of the data used for the extended analysis are provided in Table 1.

Table 1. Data included for the criteria in Stage 1 a) of Res. Conf. 12.8 (Rev. CoP18).

	Data included
CITES Trade Database report type	Gross exports; Direct trade only (re-exports are excluded)
Appendix	Appendix II taxa and Appendix I taxa subject to reservation
Source codes³	Wild ('W'), ranched ('R'), unknown ('U') and no reported source ('Not reported')
Purpose codes³	All
Terms included	<i>Selected terms⁴</i> : bark, carvings, chips, cultures, derivatives, dried plants, extract, flowers, flower pots, fruit, furniture, leaves, live, logs, plywood, powder, roots, sawn wood, seeds, stems, timber, timber carvings, timber pieces, veneer, wax and wood product.
Units of measure	Number (unit = blank), kg, l, m, m ² , m ³ <i>[where necessary, trade reported in other metrics was converted to one of these units in order to standardise the data and facilitate analysis]</i>
Year range	2014-2018 ⁵ <i>[Data from 2009-2018 used in the analysis/selection process]</i>
Additional information	<ul style="list-style-type: none"> • The global conservation status and population trend of the species as published in The IUCN Red List of Threatened Species⁶; • Whether the species/country combination was subject to the Review of Significant Trade process during any of the last four iterations (post CoP14, post CoP15, post CoP16 and post CoP17); • Whether the taxon was reported in trade for the first time within the CITES Trade Database since the last Review of Significant Trade selection process (i.e. since 2017)⁷; • Species that were recently listed at CoP15, CoP16 and CoP17 (no trade data is available for CoP18 listings)⁸; • A list of countries with direct exports in any of the most recent five years (2014-2018), whether they are a range State^{8,9} according to

³ A full list and description of source and purpose codes is specified in Res. Conf. 12.3 (Rev. CoP18).

⁴ A full list of "terms" (i.e. descriptions of specimens in trade) traded is available in the CITES Trade Database interpretation guide, see: https://trade.cites.org/cites_trade_guidelines/en-CITES_Trade_Database_Guide.pdf

⁵ Trade data for 2018 may appear lower than other years due to missing annual reports; 53% of Parties had submitted an annual report for 2018 that could be included for this analysis (as of 12th March 2020).

⁶ www.iucnredlist.org Data downloaded on 23rd March 2020.

⁷ Where possible, nomenclature changes have been accounted for. However, some taxa may be indicated as being in trade for the first time since the last selection process that were previously traded under a different taxonomic name.

⁸ Not applicable for taxa reported at the genus level or higher.

⁹ Countries with populations considered Introduced or Extinct, according to Species+, were not counted as range States.

	Data included
	<p>Species+¹⁰ with an asterisk * denoting non-range States, and the proportion of trade that their exports account for;</p> <ul style="list-style-type: none"> • The number of range States (highlighting any endemic species)^{8,9}, according to Species+¹⁰; • Species that are subject to listing annotations relating to zero quotas¹¹, or where a quota has been recommended by the Animals or Plants Committees, Standing Committee or Conference of the Parties for any year since 2014, or where a country has published a voluntary zero export quota for any year since 2014¹²; • Species/country combinations subject to Standing Committee recommendations to suspend trade in any year since 2014^{12,13,14}; • Whether all trade in this taxon is reported as non-commercial¹⁵; and • The proportion of the trade in this taxon reported in each source code.

Species selection methodology

The dataset was filtered using a set of criteria to extract the species showing noteworthy patterns of trade. The selection of species highlighted in this detailed analysis was derived using the analysis framework depicted in Figure 1.

Trade levels were selected as noteworthy according to five criteria:

- Endangered Species:** Species categorized as Critically Endangered (CR) or Endangered (EN) according to *The IUCN Red List of Threatened Species* (any species-country combinations with trade meet the criteria);
- Sharp Increase (Global):** Taxa showing a sharp increase in global trade in 2018, in comparison to the average over the preceding five-year period (2013-2017);
- Sharp Increase (Country):** Taxa showing a sharp increase in trade in 2018 at the country level (for countries of export) in comparison to the average over the preceding five-year period (2013-2017);
- High Volume:** Taxa traded at levels considered to be high compared to other taxa in their order over the most recent five year period (2014-2018);
- High Volume (Globally Threatened):** Globally threatened¹⁶, Near-Threatened (NT) and Data Deficient (DD) taxa traded at relatively high volumes for their Order over the most recent five year period (2014-2018).

¹⁰ Species+ is a database maintained by UNEP-WCMC and accessible from speciesplus.net.

¹¹ Whilst an indication of an annotation relating to a zero quota is provided, the entire annotation text cannot be included in the printed output, but is available in the excel output.

¹² Not applicable for taxa reported at the genus level or higher.

¹³ If a taxon/country combination was subject to one or more long-standing suspensions extending into 2014, the date when the suspension was put in place is reflected.

¹⁴ A suspension may not necessarily have been in place for the whole year shown.

¹⁵ Non-commercial trade comprises trade reported with any purpose code other than T.

¹⁶ To be considered "globally threatened", a species must be categorised as Critically Endangered (CR), Endangered (EN) or Vulnerable (VU) on the IUCN Red List. www.iucnredlist.org. A multiplier of 10 is applied to these species.

Further details on these criteria are summarized in Figure 1, followed by a detailed description of each criterion.

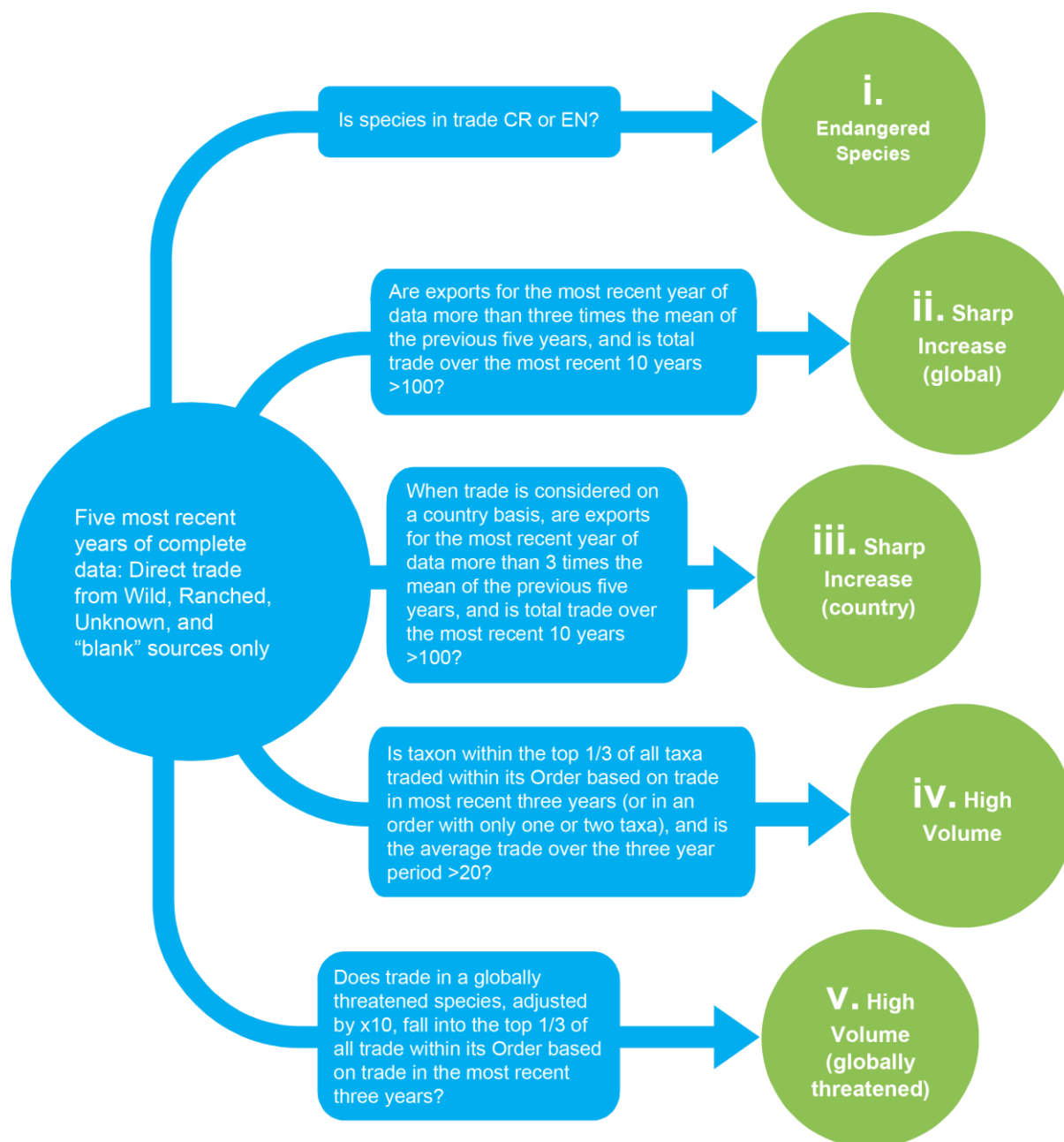


Figure 1. Flow chart for the method for selecting candidate species for consideration in the RST.

Criterion i) Endangered Species

Species threatened with extinction are assumed to be more adversely affected by high trade volumes and more susceptible to changes in trade patterns than non-threatened species. For this reason, species in trade that have been classified as Critically Endangered and Endangered in *The IUCN Red List of Threatened Species*¹⁷ were automatically selected for inclusion if any trade was reported in the most recent five years of near-complete data (2014-2018).

Criterion ii) Sharp Increase (Global)

Taxa met this criterion if the volume of direct exports in 2018 at the global level was more than three times the average trade volume of the preceding five years (2013-2017) (see Figure 2 below). Taxa that, despite a sharp increase in trade, were still only traded in very low volumes (i.e. totalling less than 100 over the 10 year period 2009-2018), were not considered to meet this criterion.

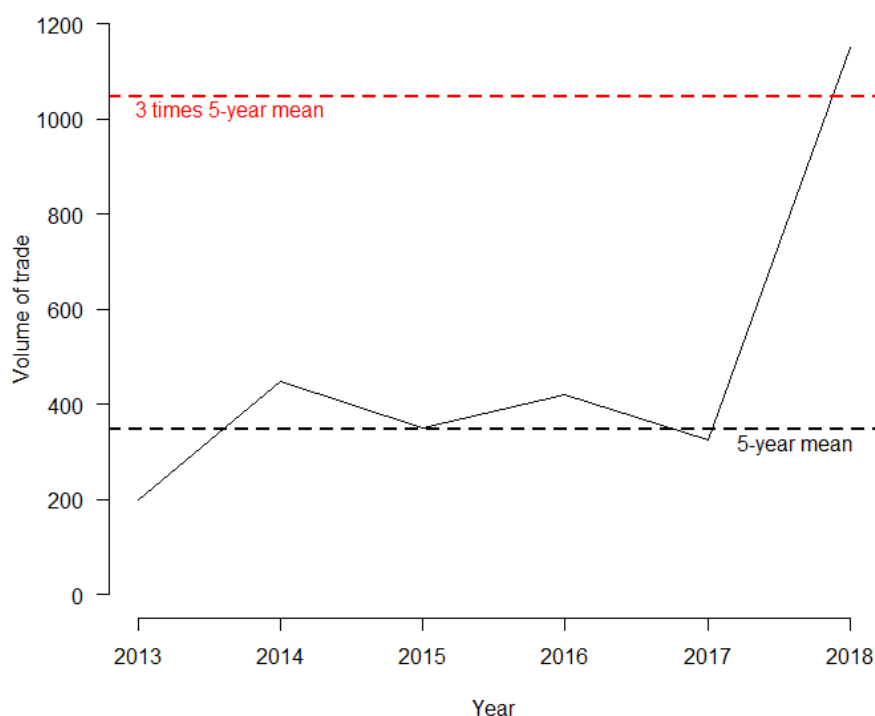


Figure 2. Illustration of the application of the ‘sharp increase’ criterion (direct gross exports).

Criterion iii) Sharp Increase (Country)

Taxon/country combinations met this criterion if the volume of direct exports in 2018 for a taxon were more than three times the average trade volume of the preceding five years as exported by a particular country (based on gross exports), and the total trade level for the taxon/country combination over the last 10 years was 100 units or more.

Criterion iv and v) High Volume and High Volume (Globally Threatened)

To identify representative taxa traded at high volumes across taxonomic groups, the most highly traded taxa within each order (based on the sum of trade across all accepted terms) were selected

¹⁷ www.iucnredlist.org Data downloaded on 23rd March 2020.

as “High Volume”. As the first step, taxa were excluded if trade averaged less than 20 units for the three years 2016-2018 (unless listed as Endangered or Critically Endangered on the IUCN Red List, in which case they were included if they averaged at least 1 unit for the three year period). The remaining taxa met the High Volume criterion if they then fell within the top third of taxa in each order by volume of trade, based on the average of three years of direct trade levels. Where only one or two taxa within an order were represented, these were selected (provided that average trade level was 20 or more units for the three years 2016-2018).

Global threat status was taken into consideration when applying the ‘High Volume’ criterion. To account for global threat status, the average trade volumes for globally threatened species¹⁸, as well as those species classified as Near Threatened and Data Deficient, were adjusted by multiplying by 10. This was done prior to selecting the top third of the order. An example showing how species were selected for this criterion is provided in Box 1. It should be noted that not all species have been assessed in the *IUCN Red List of Threatened Species*; the trade volumes are not adjusted where species have not been assessed by the IUCN.

Box 1. Determination of species meeting the High Volume criterion.

To illustrate the High Volume and High Volume (Globally Threatened) criteria, we consider a sample order with nine species in trade (see table below). The top third (in this case the top 3 species) would be selected. In the absence of any globally threatened species, species 1, 2 and 3 would meet the criteria. However, as species 6 and 9 are globally threatened, the average trade volumes for those species are adjusted by multiplying by 10. Based on the adjusted trade volumes, the species with the highest trade volumes were then species 6, 1 and 2.

Species 1 and 2 would then be selected as “High Volume”, and species 6 would be selected as “High Volume (Globally Threatened)” because of its threat status. The species that would be selected are highlighted in grey in the table below.

Example order	Average Trade Volume 2016-2018	Adjusted average trade volume 2016-2018	Globally threatened (CR, EN, VU, NT or DD)	Criterion met
Species 1	1000	1000	No	High Volume
Species 2	850	850	No	High Volume
Species 3	820	820	No	
Species 4	750	750	No	
Species 5	600	600	No	
Species 6 (VU)	200	2000	Yes	High Volume (Globally Threatened)
Species 7	55	55	No	
Species 8	3	3	No	
Species 9 (EN)	1	10	Yes	

¹⁸ Defined as species classified in the IUCN Red List of Threatened Species as Critically Endangered, Endangered, and Vulnerable. For this criterion, species considered Near Threatened and Data Deficient have also been included.

Species selection results

In total, 123 plant taxa met at least one of the five criteria based on the methods applied in the extended analysis.

Key to Table 2:

Taxon: Taxa should be assumed to be Appendix II unless otherwise indicated. For Appendix I species that are subject to a reservation, this is indicated as “(Res. I)” with the countries concerned listed.

Selection criteria: If more than one criterion is met, this is indicated with the number of criteria met in brackets, e.g. “(2)”.

IUCN status: DD = Data Deficient, NE = Not Evaluated, LC = Least Concern, NT = Near Threatened, VU = Vulnerable, EN = Endangered, CR = Critically Endangered.

IUCN population trends in brackets: (→) = stable population trend, (↓) = decreasing population trend, (↑) = increasing population trend, (?) = unknown population trend, (NE) = population trend not evaluated or [blank].

Exporters and Contextual information: For country and territory names see Appendix 2. An asterisk * denotes a non-range State¹⁹. % are correct to 1 decimal place, exporters accounting for <0.1% of total trade will not be reported. Please refer to an information document for full details of: the text of any annotation relating to zero quotas, the text of any recommended quotas or voluntary published zero quotas, and the text of any suspensions.

Range States: the number of range States according to Species+²⁰. Endemic species (= 1 range State) are highlighted in bold

% trade by Source: W = Wild, R = Ranches, U = Unknown, Not reported = No source reported. % are correct to 2 decimal places, sources accounting for <0.01% of total trade will not be reported.

Note that *Pterocarpus erinaceus* was included in the Review of Significant Trade following CoP18 based on the recommendation of SC70 and through CoP Decision 18.92 (all range States).

¹⁹ Not applicable for taxa reported at the genus level or higher. Countries with populations considered Introduced or Extinct, according to Species+, were not counted as range States. Species+ is a database maintained by UNEP-WCMC and accessible from speciesplus.net.

Table 2: Flora taxa selected through the flowchart process. Quantities are in gross exports and rounded to the nearest decimal place, when applicable. Data extracted from the CITES Trade Database 12th March 2020. [See Key on p. 7]

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
Amaryllidaceae													
<i>Galanthus elwesii</i>	live		4762037	3776954	3818085	2391967	2505208	High volume (GT)	DD (↓)	TR(100%)	6	Selected in RST Post CoP16 (TR)	W(100%)
<i>Galanthus woronowii</i>	live		18333425	13832717	17622319	17684130	16914890	High volume	NE	GE(82.9%), TR(17.1%)	3		W(100%)
Anacardiaceae													
<i>Operculicarya hyphaenoides</i>	live		0	50	320	114	0	Endangered	EN (↓)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Operculicarya pachypus</i>	live		346	505	1645	345	0	Endangered	EN (↓)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
Apocynaceae													
<i>Pachypodium eburneum</i>	live		287	335	1370	310	0	(2) Endangered; High volume (GT)	CR (↓)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Pachypodium inopinatum</i>	live		95	173	750	80	0	(2) Endangered; High volume (GT)	CR (↓)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
Araliaceae													
<i>Panax quinquefolius</i>	roots	kg	35868.7	28760.9	29117.7	24814	14201.1	High volume	NE	US(99.8%), CA(0.2%)	2		W(100%)
Berberidaceae													
<i>Podophyllum hexandrum</i>	extract	kg	466.5	1130	1029	1209	644	High volume	NE	IN(100%)	6	CITES suspension (AF(2013-2018))	W(100%)
Cactaceae													
<i>Cleistocactus spp.</i>	live		6	0	837	0	0	High volume	NE	NL(100%)			W(99.8%);Not reported(0.2%)
<i>Corryocactus brevistylus</i>	stems		710	2075	1200	0	0	High volume	LC (→)	PE(100%)	2		W(100%)
<i>Cylindropuntia cholla</i>	dried plants		0	0	4	0	0	High volume	LC (→)	MX(100%)	1	First reported in trade since last RST selection	W(100%)
		kg	0	3000	4250	4250	0						
<i>Echinocactus grusonii</i>	live		0	0	61	0	0	Endangered	EN (↓)	NL*(100%)	1		Not reported(100%)
<i>Echinopsis chiloensis</i>	derivatives		0	0	41	65	0	High volume	LC (→)	CL(100%)	1		W(100%)
	dried plants		125	155	200	0	0						
	stems		0	100	974.8	300	0						
	timber		2295	413	1470	600	0						
	wood product		0	1200	819	340	1979						

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
<i>Eulychnia acida</i>	carvings		24846	150	1200	0	3000	High volume	LC (→)	CL(100%)	1		W(100%)
	derivatives		170	0	225	10	0						
	stems		2046	0	974.8	250	900						
	timber		7530	9609	8110	8293	350						
	wood product		0	17645	24057	12140	70483						
<i>Gymnocalycium mihanovichii</i>	live		0	0	900	0	0	High volume	LC (?)	TH*(100%)	3		Not reported(100%)
<i>Gymnocalycium</i> spp.	live		0	0	2426	0	0	High volume	NE	NL(87.6%), TH(12.4%)			W(86%);Not reported(14%)
<i>Mammillaria microhelia</i>	live		0	0	20	0	0	Endangered	EN (↓)	NL*(100%)	1		Not reported(100%)
<i>Mammillaria zeilmanniana</i>	live		0	0	3	0	0	Endangered	CR (↓)	NL*(100%)	1		Not reported(100%)
<i>Melocactus matanzanus</i>	dried plants		0	0	0	0	3	Endangered	EN (?)	CU(75%), NL*(25%)	1		W(75%);Not reported(25%)
<i>Opuntia ficus-indica</i>	dried plants		0	0	4	0	0	High volume (GT)	DD (?)	MA*(100%)	7	CITES suspension (KN(2019))	W(100%)
	flowers	kg	2055	0	17550	0	0						
<i>Opuntia</i> spp.	dried plants		0	0	4	0	2	High volume	NE	MX(96.6%), NL(3.3%)			W(99.5%);Not reported(0.5%)
	live		0	0	269	0	0						
	stems	kg	0	0	7786	0	0						
<i>Parodia</i> spp.	live		82	0	1229	0	0	High volume	NE	NL(100%)			W(98.2%);Not reported(1.8%)
<i>Pilosocereus</i> spp.	live		0	0	800	0	0	High volume	NE	NL(95%), BR(4.8%), CU(0.2%)			W(98.9%);Not reported(1.1%)
Cucurbitaceae													
<i>Zygosicyos pubescens</i>	live		45	91	135	15	0	High volume	NE	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Zygosicyos tripartitus</i>	live		0	132	175	20	0	High volume	NE	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
Cyatheaceae													
<i>Sphaeropteris glauca</i>	dried plants		0	0	66033	0	0	High volume	LC (→)	ID(100%)	4		W(100%)
	sawn wood	kg	1630	0	605.9	0	2280						
	timber	kg	0	0	0	0	2400						
	wood product		0	0	0	2200	0						
<i>Sphaeropteris intermedia</i>	carvings		0	0	0	0	150	Sharp increase (global)	LC (?)	VU*(100%)	1		W(100%)
<i>Sphaeropteris medullaris</i>	extract	kg	310	760.1	1150	0	0	High volume	NE	NZ(99.8%), FR*(0.2%)	5		W(99.7%);Not reported(0.3%)
	live		0	0	0	302	5						
	powder	kg	382.4	739.8	867.2	360	100						

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
Cycadaceae													
<i>Cycas revoluta</i>	flowers		0	0	12	0	0	High volume	LC (→)	HN*(99.9%), CN(0.1%)	2		W(0.1%);Not reported (99.9%)
	leaves		0	50	0	400	0						
		m3	0	0	0	22.1	0						
	live		270	0	698665	688414	252022						
		kg	0	0	0	149061	192316						
Dicksoniaceae													
<i>Cibotium barometz</i>	dried plants	kg	125545	8000	110000	97000	0	High volume	NE	VN(99.9%), ID(0.1%)	12		W(100%)
Droseraceae													
<i>Dionaea muscipula</i>	flowers		0	0	6	0	0	High volume (GT)	VU (NE)	US(98.1%), NL*(1.9%)	1		W(98.1%);Not reported(1.9%)
	live		0	0	2500	0	0						
Euphorbiaceae													
<i>Euphorbia antispyphillica</i>	live	kg	0	0	0	3	5	High volume	NE	MX(100%)	2		W(100%)
	wax	kg	1319672.5	1229369.9	1777335.5	1671146.1	975437.2						
<i>Euphorbia bongolavensis</i>	live		30	5	15	0	0	Endangered	EN (↓)	MG(100%)	1		W(100%)
<i>Euphorbia clavigera</i>	live		0	0	0	95	178	Sharp increase (global)	NE	MZ(100%)	3		W(100%)
<i>Euphorbia guillauminiana</i>	live		160	280	185	10	0	(2) Endangered; High volume (GT)	EN (NE)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Euphorbia hedyotoides</i>	live		102	50	160	10	0	(2) Endangered; High volume (GT)	EN (NE)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Euphorbia itremensis</i>	live		50	0	0	240	0	High volume (GT)	VU (?)	MG(100%)	1	Selected in RST Post CoP15 (MG); Zero quota published (MG(2019))	W(100%)
<i>Euphorbia kondoi</i>	live		30	0	20	20	0	Endangered	CR (NE)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Euphorbia labatii</i>	live		218	0	0	110	0	(2) Endangered; High volume (GT)	CR (NE)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Euphorbia mlanjeana</i>	live		0	0	0	0	200	Sharp increase (global)	NE	MZ*(100%)	1	First reported in trade since last RST selection	W(100%)
<i>Euphorbia neohumbertii</i>	live		15	20	50	10	0	Endangered	EN (NE)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Euphorbia perrieri</i>	live		5	715	205	0	0	High volume (GT)	VU (NE)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
<i>Euphorbia primulifolia</i>	live		165	50	505	335	0	High volume (GT)	VU (NE)	MG(100%)	1	Selected in RST Post CoP14 (MG)	W(100%)

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
<i>Euphorbia razafindratsirae</i>	live		25	20	30	0	0	Endangered	CR (NE)	MG(100%)	1	Zero quota published (MG(2019))	W(100%)
Leguminosae													
<i>Dalbergia bariensis</i>	logs	m3	-	-	-	176	142.5	Endangered	EN (NE)	LA(100%)	2	Listed at CoP17; CITES suspension (LA(2015-2016-2018-present))	W(100%)
	roots	m3	-	-	-	73	0						
	sawn wood	m3	-	-	-	569	0						
<i>Dalbergia congestiflora</i>	sawn wood	m3	-	-	-	85.1	0	Endangered	EN (↓)	MX(100%)	2	Listed at CoP17	W(100%)
<i>Dalbergia granadillo</i>	logs	m3	0	0	0	16.1	71	Endangered	CR (↓)	MX(100%)	4	Listed at CoP16	W(100%)
	sawn wood	m3	15	42.1	39.5	358.8	0						
<i>Dalbergia latifolia</i>	carvings		-	-	-	4033	0	High volume (GT)	VU (NE)	IN(99%), CH*(1%)	3	Listed at CoP17; CITES suspension (NG(2015-2016))	W(78%);Not reported(22%)
	sawn wood	m3	-	-	-	87.7	91000.6						
	veneer		-	-	-	60000	0						
		kg	-	-	-	10885	1285						
		m2	-	-	-	13597.3	0						
		m3	-	-	-	109.6	0						
	wood product		-	-	-	74821	3933						
		kg	-	-	-	13218	0						
		m3	-	-	-	10.1	0						
<i>Dalbergia melanoxylon</i>	carvings		-	-	-	14	3	(3) High volume (GT); Sharp increase (global); Sharp increase (Mozambique; United Republic of Tanzania)	NT (NE)	MZ(92.7%), TZ(6.8%), UG(0.5%)	27	Listed at CoP17; CITES suspension (AO(2016),CD(2015), NG(2015-2016))	W(99.6%);Not reported(0.4%)
		kg	-	-	-	104	157						
	logs		-	-	-	60	0						
		m3	-	-	-	6514.7	21119.7						
	sawn wood		-	-	-	0	8700						
		kg	-	-	-	44400	626						
		m3	-	-	-	45	2671.9						
	timber		-	-	-	326166	2164480.9						
		kg	-	-	-	870500	44400						
		m3	-	-	-	11	0						
	wood product		-	-	-	23	148693						
		kg	-	-	-	800	0						
<i>Dalbergia oliveri</i>	logs	m3	-	-	-	2656.5	1428.1	(3) Endangered; Sharp increase (global); Sharp increase (Lao People's Democratic Republic)	EN (NE)	LA(100%)	7	Listed at CoP17; CITES suspension (LA(2015-2016-2018-present))	W(100%)
	roots	m3	-	-	-	148.5	2465.6						
	sawn wood	m3	-	-	-	3470.5	911						
	timber	m3	-	-	-	0	30						
	wood product	m3	-	-	-	239.3	824.3						

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
<i>Dalbergia retusa</i>	carvings	m3	0	0	0	3	0	(3) Endangered; High volume (GT); Sharp increase (Panama)	CR (↓)	PA(62.3%), NI(35.7%), CR(1.1%), SV(0.9%)	8	Listed at CoP16; Selected in RST Post CoP17 (NI,PA)	W(100%)
	logs	kg	0	0	0	26070	0						
		m3	13884.7	2984.6	4443.5	7591.1	32215.9						
	sawn wood		130	0	0	47	0						
		m3	4913.3	2328.5	1433.9	1808.6	257.5						
	timber	m3	9232.1	21.9	15	0	0						
<i>Dalbergia sissoo</i>	carvings		-	-	-	186	0	High volume	NE	IN(100%)	14	Listed at CoP17; CITES suspension (AF(2013-2018),GW(2016-2018),NG(2015-2016))	W(100%)
		kg	-	-	-	2324.8	1624						
	wood product		-	-	-	196374	0						
		kg	-	-	-	52922	564.8						
<i>Dalbergia tucurensis</i>	logs	m3	-	-	-	416.6	1039.8	(2) Endangered; Sharp increase (global)	EN (↓)	NI(53.4%), PA*(46.6%)	7	Listed at CoP17	W(100%)
	sawn wood	m3	-	-	-	533	0						
<i>Guibourtia demeusei</i>	logs	m3	-	-	-	1319.2	10077.9	(2) Sharp increase (global); Sharp increase (Central African Republic; Democratic Republic of the Congo)	NE	CF(80.3%), CD(16.3%), CM(1.4%), CG(1.1%), GA(0.9%)	6	Listed at CoP17; CITES suspension (CD(2015))	W(100%)
	sawn wood	m3	-	-	-	557.6	18.8						
<i>Guibourtia tessmannii</i>	logs	m3	-	-	-	2054.4	680.1	Sharp increase (global)	NE	GQ(79.9%), GA(17.8%), CG*(1.5%), CM(0.8%)	3	Listed at CoP17	W(100%)
	sawn wood	m3	-	-	-	4210	28092.2						
<i>Pericopsis elata</i>	live		0	0	0	0	612.3	(2) Endangered; High volume (GT)	EN (NE)	CD(58%), CM(24.8%), CG(17.2%)	7	Selected in RST Post CoP14 (CD,CF,CG,Ci,CM,GH,NG), Post CoP17 (CD,CG,CM); Recommended quota (Ci : 2019 - 0 logs, sawn wood (PC/SC)); CITES suspension (CD(2015),Ci(2013-present),NG(2015-2016))	W(89.6%);Not reported (10.4%)
	logs		0	0	0	0	529.3						
		m3	30653	13215	7816.2	20324.3	11119.4						
	plywood		0	0	0	50	0						
	sawn wood	m3	16071.5	7584.9	10699.6	7797.1	9282.4						
	timber	m3	0	926	298.9	157.2	35						
	wood product	m3	0	0	0	65.8	0						
<i>Pericopsis</i> spp.	sawn wood	m3	0	0	0	0	1319.4	Sharp increase (global)	NE	CG(100%)			W(100%)
<i>Platymiscium parviflorum</i>	logs	m3	5	0	0	0	23.7	Endangered	CR (↓)	NI(100%)	5		W(100%)

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
<i>Pterocarpus erinaceus</i>	carvings		-	-	-	3500	0	(4) Endangered; High volume (GT); Sharp increase (global); Sharp increase (Burkina Faso; Ghana; Mali; Nigeria; Sierra Leone)	EN (↓)	NG(70.7%), SL(22.9%), GH(3.8%), GM(1.5%), ML(0.7%), BJ(0.3%)	17	Listed at CoP17; Zero quota published (GW(2018-2019)); CITES suspension (GM(2014),GN(2013-present),GW(2016-2018),LR(2016-present),NG(2015-2016-2018-present)); Included in RST based on the recommendation of SC70 and through CoP Decision 18.92 (all range States)	W(98.1%);Not reported(1.9%)
	derivatives	m3	-	-	-	0	272						
	logs		-	-	-	16.7	215.6						
		kg	-	-	-	2472750	7364350						
		m2	-	-	-	251.5	0						
	m3	-	-	-	822317.6	796986.8							
	sawn wood		-	-	-	13709	92.5						
		kg	-	-	-	228018	1221500						
		m3	-	-	-	56533.7	251248.6						
	timber	m3	-	-	-	2239	0						
wood product	m3	-	-	-	15414.5	0							
<i>Pterocarpus santalinus</i>	logs	kg	0	0	49070	0	0	High volume (GT)	NT (↓)	IN(100%)	1	Selected in RST Post CoP16 (IN); Zero quota published (IN(2014-2017))	W(100%)
Liliaceae													
<i>Aloe aristata</i>	stems		0	0	0	0	126000	Sharp increase (global)	NE	ZW*(100%)	2	CITES suspension (LS(2013-2017))	W(100%)
<i>Aloe ferox</i>	extract		7237.8	7212.5	20664	21212	4566	High volume	NE	ZA(100%)	2	CITES suspension (LS(2013-2017))	W(100%)
		kg	488515.5	592731.4	556270.3	1570624.5	214982.2						
		l	24960.5	50388.9	70660.1	31300.1	16492.7						
	leaves		17570	2000	11090	19300	0						
		kg	14005	7152	4100	7710.5	0						
Malvaceae													
<i>Adansonia grandidieri</i>	dried plants		-	-	-	11	0	(2) Endangered; High volume (GT)	EN (↓)	MG(100%)	1	Listed at CoP17	W(100%)
Meliaceae													
<i>Swietenia humilis</i>	sawn wood	m3	47.2	0	3	2.5	0	Endangered	EN (↓)	GT(53.2%), SV(39.5%), NI(6.2%), GB*(1.1%)	8		W(98%);Not reported(2%)

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
<i>Swietenia macrophylla</i>	sawn wood		0	0	12381.1	2100	17213.8	High volume (GT)	VU (NE)	HN(74.5%), GT(8.3%), BR(8%), BZ(4.8%), MX(2.8%), PE(1.7%)	17	Selected in RST Post CoP14 (BO,BZ,CO, EC,HN,VE); Zero quota published (BO(2014-2017)); CITES suspension (DM(2018),VC(2018))	W(20.2%); Not reported (79.8%)
		kg	0	0	59265.5	38358	0						
		m3	9490.6	5530	6722.9	9131.4	1886.1						
	timber	m3	1630.4	2191.4	692.2	2766.2	1326						
	veneer	m3	19.8	76.9	41.8	10.6	0.2						
	wood product		0	0	0	181	0						
		kg	0	0	0	15990.6	0						
		m3	0	0	0	93	0						
Orchidaceae													
<i>Acampe</i> spp.	live		0	0	0	0	133	Sharp increase (global)	NE	VN(100%)			W(100%)
<i>Aerangis fuscata</i>	live		0	64	44	30	0	(2) Endangered; High volume (GT)	EN (↓)	MG(100%)	1		W(100%)
<i>Aerangis pallidiflora</i>	live		0	5	20	29	0	High volume (GT)	VU (↓)	MG(100%)	1		W(100%)
<i>Angraecum alleizettei</i>	live		0	6	10	1	0	Endangered	EN (↓)	MG(100%)	1	First reported in trade since last RST selection	W(100%)
<i>Angraecum bicallosum</i>	live		0	25	8	14	0	Endangered	EN (↓)	MG(100%)	1		W(100%)
<i>Angraecum coutrixii</i>	live		0	12	19	6	0	Endangered	EN (?)	MG(100%)	1		W(100%)
<i>Angraecum humblotianum</i>	live		0	3	28	1	0	Endangered	EN (↓)	MG(100%)	1		W(100%)
<i>Angraecum mahavavense</i>	live		0	12	8	9	0	Endangered	CR (↓)	MG(100%)	1		W(100%)
<i>Angraecum obesum</i>	live		0	10	8	2	0	Endangered	EN (↓)	MG(100%)	1		W(100%)
<i>Angraecum pinifolium</i>	live		0	23	18	14	0	(2) Endangered; High volume (GT)	EN (?)	MG(100%)	1		W(100%)
<i>Angraecum protensum</i>	live		0	0	8	10	0	Endangered	EN (↓)	MG(100%)	1		W(100%)
<i>Angraecum</i> spp.	dried plants		0	0	8	0	0	High volume	NE	MG(99.6%), DK(0.4%)			W(99.6%);Not reported(0.4%)
	flowers		0	1	4	0	0						
	leaves		0	1	35	0	0						
	live		0	744	563	14	0						
<i>Bulbophyllum callosum</i>	live		0	0	8	8	0	Endangered	EN (↓)	MG(100%)	1		W(100%)
<i>Bulbophyllum hamelini</i>	live		0	23	26	9	0	High volume (GT)	VU (?)	MG(100%)	1		W(100%)

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
<i>Bulbophyllum horizontale</i>	live		0	0	8	6	0	Endangered	EN (↓)	MG(100%)	1	First reported in trade since last RST selection	W(100%)
<i>Bulbophyllum</i> spp.	dried plants		0	30	10	48	66	High volume	NE	MG(88.2%), KH(4.3%), MM(4.3%), MY(2.1%), VU(1%), TH(0.1%)			W(100%)
	flowers		0	3	5	33	66						
	leaves		0	2	58	33	66						
	live		0	103	143	0	30						
<i>Bulbophyllum sulfureum</i>	live		0	0	5	9	0	Endangered	EN (↓)	MG(100%)	1		W(100%)
<i>Cryptopus paniculatus</i>	live		0	0	30	0	0	Endangered	EN (↓)	MG(100%)	1	First reported in trade since last RST selection	W(100%)
<i>Cymbidiella pardalina</i>	live		0	2	4	0	0	Endangered	EN (↓)	MG(100%)	1	First reported in trade since last RST selection	W(100%)
<i>Dendrobium anosmum</i>	stems	kg	0	0	1734.4	0	0	High volume	LC (?)	TH(100%)	10	CITES suspension (LA(2015-2016))	W(100%)
<i>Dendrobium denudans</i>	stems	kg	0	0	2597.6	0	0	High volume	NE	TH(100%)	3		W(100%)
<i>Dendrobium nobile</i>	live		0	0	10	0	0	High volume	LC (?)	TH(99.7%), DK*(0.3%)	11	Zero quota published (VN(2014-2017)); CITES suspension (LA(2013-present))	W(99.7%);Not reported(0.3%)
	stems	kg	0	0	3675.2	0	0						
<i>Dendrobium</i> spp.	dried plants		0	36	1	18	0	High volume	NE	TH(57%), NP(37.1%), SG(3.5%), LK(1.2%), IN(0.5%), NL(0.3%), MM(0.2%), MY(0.1%), KH(0.1%)			W(37.4%);Not reported (62.6%)
	flowers		0	180	490	0	0						
	live		20	285	12030	0	11						
		kg	0	0	500	0	0						
	stems	kg	0	0	8007.2	0	0						
<i>Gastrorchis tuberculosa</i>	live		0	4	7	3	0	Endangered	EN (?)	MG*(100%)		First reported in trade since last RST selection	W(100%)

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
<i>Orchidaceae</i> spp.	dried plants		1880	2081	518	449	50	High volume	NE	IN(53.5%), TW(16.2%), SG(15%), MG(7.5%), MM(2.1%), US(1.5%), BZ(1.1%), PA(0.8%), CR(0.8%), KH(0.5%), JP(0.4%), PE(0.2%), CM(0.1%), PG(0.1%), JM(0.1%), MY(0.1%)			W(19.8%); U(0.6%);Not reported (79.6%)
		kg	0	0	75	0	0.1						
	flowers	kg	0	0	0	0	55						
	live		2377	1325	13979	871	34						
	roots		1580	0	0	0	5						
<i>Phalaenopsis</i> spp.	live		256	37296	2762	2000	0	High volume	NE	CR(98.6%), VN(0.6%), TH(0.5%), AE(0.2%), NL(0.1%)			W(97.6%);Not reported(2.4%)
<i>Sarcophyton</i> spp.	live		900	4900	400	0	0	High volume	NE	VN(100%)			W(92.7%);Not reported(7.3%)
<i>Spathoglottis plicata</i>	live		0	0	3500	0	0	High volume	NE	IN(96%), LK(4%)	34	CITES suspension (LA(2015-2016),SB(2016,2019))	Not reported(100%)
<i>Vanda</i> spp.	live		0	105	314	0	0	High volume	NE	TH(60.3%), SG(24.5%), IN(11.7%), MM(2.1%), NL(1.4%)			W(2.1%);Not reported (97.9%)
<i>Vanilla</i> spp.	dried plants		8	4	383	0	0	High volume	NE	PE(93%), BZ(4.1%), MG(2.4%), KH(0.5%)		No commercial trade	W(100%)
	live		7	2	0	3	2						
Palmae													
<i>Dyopsis decaryi</i>	live		0	0	12	0	0	High volume (GT)	VU (↓)	LK*(100%)	1		Not reported (100%)
<i>Ravenea rivularis</i>	seeds	kg	7875	4500	4446	2775	1850	High volume (GT)	VU (↓)	MG(100%)	1	Selected in RST Post CoP14 (MG)	W(100%)
Pedaliaceae													
<i>Uncarina stellulifera</i>	live		30	80	0	10	0	High volume (GT)	NT (↓)	MG(100%)	1	Listed at CoP16	W(100%)

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
Primulaceae													
<i>Cyclamen coum</i>	extract	l	0	195	1085	355	0	(2) High volume; Sharp increase (Georgia)	NE	TR(99.4%), GE(0.6%)	11		W(100%)
	live		358664	179051	266480	276856	444542						
<i>Cyclamen hederifolium</i>	live		0	0	115623	194599	193479	(3) High volume; Sharp increase (global); Sharp increase (Turkey)	NE	TR(100%)	8		W(100%)
Rosaceae													
<i>Prunus africana</i>	bark		0	50000	232	0	0	High volume (GT)	VU (NE)	CM(75.7%), UG(15.9%), CD(8%), CG*(0.3%)	22	Selected in RST Post CoP16 (CD,CM); Recommended quota (MG : 2020 - 0 All (PC/SC)//UG : 2019 - 252567 kg dry bark (PC/SC);2020 - 252567 kg Dry bark (PC/SC)); Zero quota published (BI(2014-2017),CM(2019),KE(2014-2017),MG(2014-2019),TZ(2019)); CITES suspension (AO(2016),CD(2015), GQ(2013-present), LS(2013-2017), NG(2015-2016), ST(2016-2017), TZ(2013-2019))	W(100%)
		kg	1365890	980012	2141722.3	564373	438180						
Santalaceae													
<i>Osyris lanceolata</i>	chips	kg	0	50	101000	1700	0	High volume	LC (?)	BI(99.7%), UG(0.3%)	9	First reported in trade since last RST selection; Listed at CoP16; CITES suspension (CD(2015))	W(100%)
	extract	kg	0	0	0	0	25						
Sarraceniaceae													
<i>Sarracenia purpurea</i>	leaves		0	0	351	0	0	(2) Endangered; High volume (GT)	EN (NE)	CA(100%)	2	No commercial trade	W(100%)
Taxaceae													
<i>Taxus cuspidata</i>	logs	m3	0	0	100	0	0	High volume	LC (→)	KP(100%)	5		W(100%)
<i>Taxus wallichiana</i>	dried plants		0	0	4	0	0	(2) Endangered; High volume (GT)	EN (↓)	NP(100%)	11	CITES suspension (AF(2013-2018))	W(100%)
	extract	kg	21.3	9847	20	0	0						

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
Thymelaeaceae													
<i>Aquilaria crassna</i>	chips	kg	35	0	233	473.9	0	Endangered	CR (↓)	TH(91%), VN(8.2%), LA(0.9%)	4	CITES suspension (LA(2015-2016))	W(98.3%);Not reported(1.7%)
	live	kg	0	0	50	0	0						
<i>Aquilaria filaria</i>	chips		0	0	250	290	0	High volume (GT)	VU (↓)	ID(99.8%), PG*(0.1%), SG*(0.1%)	2		W(100%)
		kg	406040	421343.8	446236.1	419231	442978						
	logs	kg	87737	41911	62322	11259	0						
	powder	kg	656921	605397	404325	164611	240291						
	timber	kg	17674	14361	8126	42800	8988						
	wood product	kg	0	0	11820	0	0						
<i>Aquilaria malaccensis</i>	chips		1810	0	350	0	0	(3) Endangered; High volume (GT); Sharp increase (India)	CR (↓)	ID(71.2%), MY(21.8%), SG(6%), IN(0.8%), LA*(0.2%)	10		W(99.3%); U(0.5%);Not reported(0.2%)
		kg	127875	87034	112603	111925.8	89127						
	logs	kg	19894	10340	1100	2630	64						
	powder	kg	14000	2500	0	3000	4500						
	sawn wood	kg	0	0	1140	0	10						
	timber	kg	15952	5829.9	3700	1600	0						
<i>Aquilaria spp.</i>	wood product	kg	0	0	18435	0	0						
	chips	kg	170338.5	125952.1	92961	32336.1	13883.7	High volume	NE	MY(99.5%), ID(0.5%)			W(99.9%); U(0.1%)
		m3	0	0	0	780	0						
	powder	kg	20525	22974	38400	4700.2	0						
	sawn wood	m3	0	0	30.2	0	0						
	wood product	m3	0	0	0	200	0						
<i>Gonystylus bancanus</i>	carvings	m3	157.1	222.1	73.3	0	0	Endangered	CR (↓)	MY(75.8%), ID(24.2%)	3		W(100%)
	sawn wood	m3	111.9	24	184.9	62.2	0						
	timber	m3	76.2	23.8	15.7	32.9	19.4						
	veneer	m3	0	0	0	0	8.5						
<i>Gonystylus macrophyllus</i>	logs	m3	0	0	0	0	1044.5	Sharp increase (global)	LC (↓)	SB(100%)	7	CITES suspension (SB(2016,2019))	W(100%)
Valerianaceae													
<i>Nardostachys grandiflora</i>	derivatives	kg	278872	0	318259	276297	0	(2) Endangered; High volume (GT)	CR (↓)	NP(100%)	4	Selected in RST Post CoP16 (NP)	W(100%)
Vitaceae													
<i>Cyphostemma elephantopus</i>	live		13	15	63	0	0	High volume	NE	MG(100%)	1		W(100%)
<i>Cyphostemma montagnacii</i>	live		0	162	102	10	0	High volume	NE	MG(100%)	1		W(100%)

Taxon	Term	Unit	2014	2015	2016	2017	2018	Selection criteria met	IUCN status	Exporters	Range States	Contextual information	% trade by source
Zamiaceae													
Macrozamia moorei	live		0	55	887	255	321	High volume (GT)	NT (↓)	AU(100%)	1		W(100%)
Zamia angustifolia	dried plants		45	0	0	27	0	High volume (GT)	VU (↓)	CU(100%)	2	No commercial trade	W(100%)
	leaves		65	0	0	30	0						
	live		30	0	0	100	0						
	seeds		0	0	0	150	0						
Zamia furfuracea	live		0	0	68	0	0	Endangered	EN (↓)	LK*(100%)	1		Not reported(100%)
Zamia pygmaea	dried plants		0	0	0	18	0	Endangered	CR (↓)	CU(100%)	1	No commercial trade	W(100%)
	live		0	0	0	20	0						
	seeds		0	0	0	30	0						
Zygophyllaceae													
Bulnesia sarmientoi	derivatives	kg	0	28	570	0	0	(2) Endangered; High volume (GT)	EN (↓)	AR(63.2%), PY(36.8%)	4	Selected in RST Post CoP16 (AR,PY)	W(100%)
	extract	kg	77613.2	82656.4	218031	245500.1	55572.2						
	logs	kg	4451798	2053318	3228328	2710363	1149225						
		m3	21	0	117.6	54124.7	204.3						
	sawn wood	kg	320864	857641.2	181760	105530	104148						
		m2	0	0	0	3	0						
		m3	57.5	374.7	325.2	430.4	591.5						
	timber	kg	841977	129575	54000	97356.3	0						
		m3	0	0	0	0	58.4						
	wood product	kg	0	0	92900	76431	0						
m3		0	0	0	7.3	0							

Appendix 1: Comparison of methods

To address the concerns raised by the Animals Committee at AC29 that the multiplier for the “High Volume (globally threatened)” criterion should not be weighted equally for Critically Endangered and Near Threatened taxa, two methodologies were compared for this criterion of the extended analysis, using the dataset included in the extended analysis following CoP17: method 1 (used in the previous selection process) and method 2 (an adjusted approach).

The methods varied with reference to the weighting factor used for species classified as globally threatened (Critically Endangered, Endangered and Vulnerable), Near Threatened (NT) or Data Deficient (DD) in the IUCN Red List. Method 1 applied a 10x multiplier to all globally threatened, NT or DD species, and method 2 used weightings dependent on threat status (Table A1). A total of 17 species were selected by each method that were not also selected by the alternative method (Table A2).

Table A1. Comparison of threat status weighting for the identification of species meeting the criterion “High Volume (globally threatened)” with equal weighting (method 1) and stratified weighting (method 2).

Red List Category	Multiplier	
	Method 1	Method 2
Critically Endangered (CR)	10x	10x
Endangered (EN)	10x	8x
Vulnerable (VU)	10x	6x
Near Threatened (NT)	10x	4x
Data Deficient (DD)	10x	2x

Assessment of methods

Reducing the weighting applied to Near Threatened (NT) and Vulnerable (VU) taxa through stratified weighting under proposed method 2 reduced the likelihood of them being selected: 14 NT/VU and one Data Deficient (DD) species no longer met the criteria for “High Volume”/ “High Volume (globally threatened)”, and of these, 12 species did not meet any other criteria of the extended analysis (“Endangered” or “Sharp increase”) (Table A2). Instead, more taxa at the extremes were selected in method 2: ten taxa of Least Concern (LC) or Not Evaluated (NE); and seven taxa that were considered Endangered (EN) or Critically Endangered (CR) (Table A2). The species considered EN and CR are automatically selected under the “Endangered” criteria of the extended analysis, so favouring them more heavily in the weighting of “High Volume (globally threatened)” did not impact their inclusion.

The proposed method of stratifying the weighting for the “High Volume (globally threatened)” criteria therefore selected more species of Least Concern, and fewer threatened species. Accordingly, and in consultation with the Secretariat, it was decided to retain method 1 (and the 10x weighting) as the basis for the extended analysis following CoP18.

Table A2. Summary of differences between the taxa selected for the “High Volume (globally threatened)” criterion using a method of equal weighting for CR, EN, VU, NT and DD (method 1, as used following CoP17), and those selected when stratified weightings are applied to Red List status (method 2).

		Taxa selected under current “High Volume (globally threatened)” criteria only (method 1)				Taxa selected under proposed method only (method 2)			
Group	Order	Taxon	Red List status	Criterion	Met other criteria?	Taxon	Red List status	Criteria	Met other criteria?
Mammals	Primates	<i>Lophocebus aterrimus</i>	NT (↓)	HV (GT)	N	<i>Cebus apella</i>	LC (↓)	HV	N
Birds	Psittaciformes	<i>Amazona dufresniana</i>	NT (↓)	HV (GT)	N	<i>Agapornis canus</i>	LC (→)	HV	N
		<i>Amazona festiva</i>	NT (↓)	HV (GT)	N	<i>Lathamus discolor</i>	CR (↓)	HV (GT)	Y - Endangered
		<i>Aratinga solstitialis</i>	EN (↓)	HV (GT)	Y - Endangered	<i>Orthopsittaca manilata</i>	LC (→)	HV	N
Reptiles	Sauria	<i>Calumma oshaughnessyi</i>	VU (↓)	HV (GT)	Y - SI in country	<i>Uroplatus fimbriatus</i>	LC (↓)	HV	N
		<i>Calumma parsonii</i>	NT (↓)	HV (GT)	Y - SI in country	<i>Varanus dumerilii</i>	NE	HV	N
		<i>Uroplatus ebenau</i>	VU (↓)	HV (GT)	N	<i>Varanus rudicollis</i>	NE	HV	N
Amphibians	Anura	<i>Epipedobates anthonyi</i>	NT (→)	HV (GT)	N	<i>Mantella expectata</i>	EN (↓)	HV (GT)	Y - Endangered
Fish	Acipenseriformes	<i>Polyodon spathula</i>	VU (?)	HV (GT)	N	<i>Acipenser gueldenstaedtii</i>	CR (↓)	HV (GT)	Y - Endangered & SI in country
Inverts	Lepidoptera	<i>Ornithoptera chimaera</i>	NT (NE)	HV (GT)	N	<i>Trogonoptera brookiana</i>	NE	HV	N
Coral	Scleractinia	<i>Hydnophora microconos</i>	NT (?)	HV (GT)	N	<i>Fungia</i> spp.	NE	HV	Y - SI in country
		<i>Plerogyra simplex</i>	NT (?)	HV (GT)	N	<i>Lobophyllia</i> spp.	NE	HV	N
Plants	Caryophyllales	<i>Hylocereus undatus</i>	DD (?)	HV (GT)	N	<i>Rhipsalis</i> spp.	NE	HV	N
	Euphorbiales	<i>Euphorbia itremensis</i>	VU (?)	HV (GT)	N	<i>Euphorbia hedyotoides</i>	EN (NE)	HV (GT)	Y - Endangered
		<i>Euphorbia pedilanthoides</i>	NT (NE)	HV (GT)	Y - SI & SI in country	<i>Euphorbia labatii</i>	CR (NE)	HV (GT)	Y - Endangered
	Gentianales	<i>Pachypodium brevicaule</i>	VU (↓)	HV (GT)	N	<i>Pachypodium inopinatum</i>	CR (↓)	HV (GT)	Y - Endangered
	Orchidales	<i>Platanthera praeclara</i>	EN (↓)	HV (GT)	Y - Endangered	<i>Angraecum pinifolium</i>	CR (?)	HV (GT)	Y - Endangered

Key:

IUCN Red List status: DD = Data Deficient, NE = Not Evaluated, LC = Least Concern, NT = Near Threatened, VU = Vulnerable, EN = Endangered, CR = Critically Endangered; **population trends** in brackets: (→) = stable population trend, (↓) = decreasing population trend, (↑) = increasing population trend, (?) = unknown population trend, (NE) = population trend not evaluated or [blank].

Criteria: HV (GT) = High Volume (globally threatened), Endangered = Endangered species, SI = Sharp Increase, SI in country = Sharp Increase in country

Appendix 2: ISO codes and country and territory names

Code	Name
AD	Andorra
AE	United Arab Emirates
AF	Afghanistan
AG	Antigua and Barbuda
AI	Anguilla
AL	Albania
AM	Armenia
AO	Angola
AQ	Antarctica
AR	Argentina
AS	American Samoa
AT	Austria
AU	Australia
AW	Aruba
AX	Åland Islands
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BB	Barbados
BD	Bangladesh
BE	Belgium
BF	Burkina Faso
BG	Bulgaria
BH	Bahrain
BI	Burundi
BJ	Benin
BL	Saint Barthelemy
BM	Bermuda
BN	Brunei Darussalam
BO	Bolivia, Plurinational State of
BQ	Bonaire, Saint Eustatius and Saba
BR	Brazil
BS	Bahamas
BT	Bhutan
BV	Bouvet Island
BW	Botswana
BY	Belarus
BZ	Belize

Code	Name
CA	Canada
CC	Cocos (Keeling) Islands
CD	Democratic Republic of the Congo
CF	Central African Republic
CG	Congo
CH	Switzerland
CI	Côte d'Ivoire
CK	Cook Islands
CL	Chile
CM	Cameroon
CN	China
CO	Colombia
CR	Costa Rica
CU	Cuba
CV	Cape Verde
CW	Curaçao
CX	Christmas Island
CY	Cyprus
CZ	Czech Republic
DE	Germany
DJ	Djibouti
DK	Denmark
DM	Dominica
DO	Dominican Republic
DZ	Algeria
EC	Ecuador
EE	Estonia
EG	Egypt
EH	Western Sahara
ER	Eritrea
ES	Spain
ET	Ethiopia
FI	Finland
FJ	Fiji

Code	Name
FK	Falkland Islands (Malvinas) ²⁰
FM	Micronesia, Federated States of
FO	Faroe Islands
FR	France
GA	Gabon
GB	United Kingdom of Great Britain and Northern Ireland
GD	Grenada
GE	Georgia
GF	French Guiana
GG	Guernsey
GH	Ghana
GI	Gibraltar
GL	Greenland
GM	Gambia
GN	Guinea
GP	Guadeloupe
GQ	Equatorial Guinea
GR	Greece
GS	South Georgia and the South Sandwich Islands
GT	Guatemala
GU	Guam
GW	Guinea-Bissau
GY	Guyana
HK	Hong Kong
HM	Heard Island and McDonald Islands
HN	Honduras
HR	Croatia
HT	Haiti
HU	Hungary
ID	Indonesia
IE	Ireland
IL	Israel
IM	Isle of Man
IN	India
IO	British Indian Ocean Territory
IQ	Iraq
IR	Iran, Islamic Republic of

Code	Name
IS	Iceland
IT	Italy
JE	Jersey
JM	Jamaica
JO	Jordan
JP	Japan
KE	Kenya
KG	Kyrgyzstan
KH	Cambodia
KI	Kiribati
KM	Comoros
KN	Saint Kitts and Nevis
KP	Democratic People's Republic of Korea
KR	Republic of Korea
KW	Kuwait
KY	Cayman Islands
KZ	Kazakhstan
LA	Lao People's Democratic Republic
LB	Lebanon
LC	Saint Lucia
LI	Liechtenstein
LK	Sri Lanka
LR	Liberia
LS	Lesotho
LT	Lithuania
LU	Luxembourg
LV	Latvia
LY	Libyan Arab Jamahiriya
MA	Morocco
MC	Monaco
MD	Republic of Moldova
ME	Montenegro
MF	Saint Martin
MG	Madagascar
MH	Marshall Islands
MK	North Macedonia
ML	Mali

²⁰ A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Islas Malvinas).

Code	Name
MM	Myanmar
MN	Mongolia
MO	Macao
MP	Northern Mariana Islands
MQ	Martinique
MR	Mauritania
MS	Montserrat
MT	Malta
MU	Mauritius
MV	Maldives
MW	Malawi
MX	Mexico
MY	Malaysia
MZ	Mozambique
NA	Namibia
NC	New Caledonia
NE	Niger
NF	Norfolk Island
NG	Nigeria
NI	Nicaragua
NL	Netherlands
NO	Norway
NP	Nepal
NR	Nauru
NU	Niue
NZ	New Zealand
OM	Oman
PA	Panama
PE	Peru
PF	French Polynesia
PG	Papua New Guinea
PH	Philippines
PK	Pakistan
PL	Poland
PM	Saint Pierre and Miquelon
PN	Pitcairn
PR	Puerto Rico
PT	Portugal
PW	Palau
PY	Paraguay

Code	Name
QA	Qatar
RE	Réunion
RO	Romania
RS	Serbia
RU	Russian Federation
RW	Rwanda
SA	Saudi Arabia
SB	Solomon Islands
SC	Seychelles
SD	Sudan
SE	Sweden
SG	Singapore
SH	Saint Helena, Ascension and Tristan da Cunha
SI	Slovenia
SJ	Svalbard and Jan Mayen
SK	Slovakia
SL	Sierra Leone
SM	San Marino
SN	Senegal
SO	Somalia
SR	Suriname
SS	South Sudan
ST	Sao Tome and Principe
SV	El Salvador
SX	Sint Maarten
SY	Syrian Arab Republic
SZ	eSwatini
TC	Turks and Caicos Islands
TD	Chad
TF	French Southern Territories
TG	Togo
TH	Thailand
TJ	Tajikistan
TK	Tokelau
TL	Timor-Leste
TM	Turkmenistan
TN	Tunisia
TO	Tonga
TR	Turkey
TT	Trinidad and Tobago

Code	Name
TV	Tuvalu
TW	Taiwan, Province of China
TZ	United Republic of Tanzania
UA	Ukraine
UG	Uganda
UM	United States Minor Outlying Islands
US	United States of America
UY	Uruguay
UZ	Uzbekistan
VA	Holy See
VC	Saint Vincent and the Grenadines
VE	Venezuela, Bolivarian Republic of
VG	Virgin Islands, British
VI	Virgin Islands, United States
VN	Viet Nam
VU	Vanuatu
WF	Wallis and Futuna Islands
WS	Samoa
YE	Yemen
YT	Mayotte
ZA	South Africa
ZM	Zambia
ZW	Zimbabwe