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

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THE DEFINITION OF 'ARTIFICIALLY PROPAGATED' OF CITES-LISTED TREE SPECIES

1. This document has been submitted by China in relation with agenda items 56 and 62*.

Background

2. The exemptions for artificially propagated specimens contained in Article VII facilitate legal trade and reduce the burden on Parties. This relies on an unambiguous and practical definition of 'artificially propagated' and on appropriate measures to prevent the potential for such provisions to be abused and misused.

3. The core elements of the definition related to 'artificially propagated' were essentially established thirty years ago (Resolution Conf. 8.17). A subsequent Resolution Conf. 11.11 (Gigiri, 2000) on Regulation of trade in plants has been revised at the 13th, 14th, 15th and 18th meetings of the Conference of the Parties (Bangkok, 2004; The Hague, 2007; Doha, 2010; Geneva, 2019).

4. By defining the 'plant obtained through assisted production' ('assisted production') and generating the new source code 'Y', Resolution Conf. 11.11 (Rev. CoP 18) addresses regulatory issues of diverse production systems with some human intervention for CITES-listed plant species (PC12 Doc. 23.1, PC14 Doc. 15, PC24 Doc. 16.1, CoP18 Doc. 59.2).

5. The Plants Committee has been conducting continuous research for more than twenty years and is gradually supplementing knowledge of the artificial propagation of trees ((PC10 Doc.8.1, PC14 Doc. 15,CoP13 Doc. 51, PC14 Doc. 7.4, CoP14 Doc. 8.3, PC17 Doc. 18, CoP15 Doc. 60, PC19 Doc. 16.3, PC20 Doc. 15.1, PC23 Doc. 19.2, PC24 Doc. 16.2, PC25 Doc. 23 and its addendum). This work and knowledge of range States led to the revision of Resolution Conf. 11.11 for some Appendix-I trees grown from wild-collected seed to be treated as artificially propagated specimens in exceptional circumstances (CoP13 Doc. 51) and the adoption of Resolution Conf. 16.10 with a definition of 'artificially propagated specimens' specifically for agarwood-producing taxa (CoP 16 Doc. 67.1, CoP 16 Doc. 67.2).

6. Discussions on the definition of 'artificially propagated' in Resolution Conf 10.13 (Rev. CoP18) on Implementation of the Convention for tree species focused mainly on the clarification of specimens in trade and plantations of trees, and led to the adoption of Resolution Conf. 16.10 on Implementation of the Convention for Agar-producing taxa.

7. Currently, Resolutions Conf. 10.13 (Rev. CoP18), 11.11 (Rev. CoP18) and 16.10 all address issues relating to artificial propagations. The source code for 'artificially propagated' is contained in Resolution Conf. 12.3

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(Rev. CoP18) on Permits and Certificates, which refers explicitly to the definition of 'artificially propagated' in Resolution Conf. 11.11 (Rev. CoP 18) on Regulation of trade in plants.

8. However, these Resolutions are not consistent in their interpretation and application of the term 'artificially propagated' when referring to specimens of CITES-listed trees. (PC 25 Doc. 24 and its addendum) (Preliminary Guidance on Terms Related to the Artificial Propagation of CITES Regulated Plants, 2021). The Plants Committee discussed reconciling subtle differences in the definition of the term (PC24 Doc. 16.2, PC 25 Doc. 24 and its addendum, PC25 SR).

9. Notification to the Parties No. 2021/074 of December 2021 contained a questionnaire to assist in a preliminary study by China CITES authorities. Responses were received from five Parties: Thailand, Switzerland, United Kingdom, Germany, United States, two NGOs: GREENPEACE (Southeast Asia Office, Africa Office) and TRAFFIC, and specialists from the University of Kent and USDA Forest Service (through WRI).

10. In addition to the above documents, the following data and findings incorporate a systematic literature review of 40 reports and more than 270 peer-reviewed articles, as well as face-to-face interviews with Beijing branches/offices of NGOs or NPOs related to nature conservation or sustainable trade in forest products, including China-UK Collaboration on International Forest Investment & Trade (InFIT), Forest Stewardship Council (FSC), GREENPEACE, Global Environmental Institute (GEI), IUCN-GEF Project, Preferred by Nature (PfN) and World Wildlife Fund (WWF). The following three chapters are the findings of this study.

Regarding the policy and legislation

11. For policymakers facing trade-offs between environmental and production goals, promoting multispecies plantations is a better option than monocultures. Multispecies tree planting is providing better timber production and ecosystem services, with substantial benefits in terms of productivity, stability, community structure, and biodiversity[1]. The UN Decade on Ecosystem Restoration witnesses a shift in policy to balance forest restoration and wood production[2].

12. Parties have laws and measures on forest plantations, including national strategies, programmes, management plans, registration standards, guidance or third-party certification, whether they consist of a single species or a mixture of species. Some Parties encourage the establishment of forest plantations, especially mixed-species plantations.

13. Few Parties responded to the statement that "the policy tilts in trade regulations for mono-specific plantations, which may have the potential to promote a certain degree of natural forest conversion and drive deforestation" (No. 2021/074); Germany proposed that "a complex system which is fraught with financial risks, like the establishment of plantations is not likely driven by the question of whether or not the resulting specimens have to be traded with a CITES-export permit or a certificate".

14. Individual consumer countries may request supporting documents to confirm that plantations are being operated sustainably when making NDFs to import the products as artificially propagated specimens using source code 'A' (UK).

Regarding the plantations of CITES-listed tree species

15. For the thirteen tree taxa in the questionnaire, responses showed that in Cameroon, Indonesia, Thailand and the US, other types of plantations were more common than mono-specific plantations with the main aims of timber production or non-timber forest products. Reference was also made to other objectives, such as greening, improving agroforestry systems and experimental forestry planting.

16. Globally, literature shows that among selected CITES tree species, plantation types are diverse, but there are currently fewer cases of agroforestry or forest enrichment. (see Annex 1A)

17. From the perspective of plantation characteristics, the intensity of human intervention and the environment is not a reason to exclude more types of plantations from artificial propagation. Aside from forest enrichment, there are no significant differences between several types of plantations in making NDFs and LAFs. Mono-specific plantations, on the other hand, are generally less beneficial and environmentally friendly (see Annex 1B).

Cases of CITES-listed tree species

18. *Prunus Africana*. The remnant populations in Afromontane are threatened by habitat destruction and fragmentation caused by land clearance for agriculture, wild fires and invasive alien species encroaching from commercial forest plantations[3]. In Cameroon, Madagascar, Kenya, Uganda and Democratic Republic of Congo, a combination of protection of wild populations, enrichment plantings within forests, and small- to large-scale cultivation (in farms and plantations) appear be necessary to meet current and projected market demand[4,5], take pressure off natural stands and for circa situ (on-farm) conservation[6] and genetic diversity preservation[7,8]. In Kenya, the Forestry Department has established successful *Prunus Africana* plantations for timber production[9]. In Cameroon and Kenya, Smallholder farmer planting programmes have enjoyed some success6, over 3500 farmers in the Northwest Province of Cameroon are already planting *Prunus africana* as a cash crop[9].

19. *Dalbergia* spp.. Today, plantation forestry is gradually changing from large-scale investments in monocultures to small-scale investments, in which local households and communities are the principle owners[10], so as contribute to enhanced livelihoods. Also, many *Dalbergia* spp. are excellent agroforestry tree components with their ability to fix atmospheric nitrogen[10]. In Sri Lankan, the species like *Dalbergi asissoo, D. latifolia, D. melanoxylon* are excellent soil conditioners and provide fodder for cattle and are easily adoptable[10]. In Cambodia, the planting of *Dalbergia cochinchinensis* and *D. oliveri* is incentivized and promoted for genetic conservation through the establishment of industrial plantations, household plantations, and agroforestry systems[11]. Because of limited yard space and uncertainties associated with the success of the plantings[11], planting the trees with other local high-value commercial timber species along the front fences of yards is preferred.

20. *Aniba rosaeodora*. The species is used in silvicultural systems which are seen as a means to reducing the pressure of exploitation of natural rosewood populations[12]. Since wild populations are under full protection (directive N0 443 12/2014, MMA), commercial rosewood plantations (formed from genetic material of natural populations) are meeting the global cosmetic industry's demand for the essential oil (EO) derived from this species[13] and guarantee the conservation of this species in its natural habitat[14]. Given the difficulties in obtaining rosewood seedlings, regrowth is the best management option for commercial plantations[13].

21 *Abies guatemalensis.* Populations of *A. guatemalensis* continue to be threatened by foliage poachers, timber and firewood extraction, grazing and conversion to arable land[15]. The existing knowledge on *A. guatemalensis* should be used to steer utilisation, to generate livelihood improvements for the local Maya communities, and to optimise regional and national conservation efforts[16]. Nursery establishment is a prerequisite for studying different effects of seed storage and treatment, germination rates, pest susceptibility, etc16. So far, 51 such plantations have been established in Guatemala[15].

22. *Pericopsis elata. P. elata* constitutes part of the timber wood whose silviculture has been tested in Cameroon[17]. A study aimed to analyse the response of *P. elata* to a delay thinning (34-37 years) conducted in abandoned plantations in the South and East regions of Cameroon revealed that it showed a high competition for light due to high tree density[17]. Ghana has been successful in establishing *P. elata* on a small scale in enrichment plantings (line and group methods) and in taungya and direct plantations and must be up-scaled[18]. Plantation trials need to be conducted to identify affordable and effective enrichment methods (including pest identification and control techniques) that could be routinely applied by logging companies**Error! Bookmark not defined.**.

Regarding the application of the definition of 'artificially propagated' specimens of trees

23. The plantation is defined in countries' national legislation PC23 Doc. 19.2, PC24 Doc. 16.2). Some Parties do not use the definition in Conf. 10.13 because it is not fit for their environment (Thailand).

24. In some Parties, if timber or other parts or derivatives of CITES-listed tree species are harvested from a mixed-species plantation or other types of plantations, and the exporter provides sufficient information (e.g., source of propagules, parental stock) to the CITES Authorities, the specimen(s) may be treated meeting the definition of artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP18) and therefore exported as artificially propagated (USA, China).

25. The 'assisted production' (source code 'Y') could be applied to specimens produced through some particular silviculture practices, such as enrichment plantings and assisted natural regeneration. This approach may address the concerns of the former Timber Working Group (CoP 10 Doc.52, Decision 10.127).

26. There were divergent views on whether the lack of definitions for the terms "tree" and "plantation" affected the application of the definition of ‘artificial propagated’ in Resolution Conf. 10.13 (Rev. CoP 18).

Conclusion

27. Artificially propagated specimens of trees do not necessarily originate from mono-specific plantations. The current definition of ‘artificially propagated’ as contained in Resolution Conf. 10.13 (Rev. CoP 18) has little relevance in modern restoration ecology and biodiversity conservation, and is impractical from the perspective of the current implementation of the CITES.

28. While the PC did not pursued a definition of “plantation”, reports, discussion records, as well as questionnaire responses, showed a certain level of expectation. In particular, if considering adding mixed-species plantations into paragraph 1. f) of Resolution Conf.10.13 (Rev. CoP18), an appropriate definition of “plantations” is necessary to avoid misuse.

29. A potential solution to avoid unnecessary confusion may be deleting paragraph 1. f) of Resolution Conf.10.13 (Rev. CoP18) and end a long-standing confusion and controversy. The decision-making of Parties would then come down to consideration of the terms “controlled conditions” and “cultivated parental stock” in paragraph 1 (a) and (b) of Res. Conf. 11.11 (Rev. CoP 18). Various form of plantations would therefore be covered artificial propagation, otherwise they should be considered as “assisted production”.

Type of plantation of selected CITES-listed trees by CITES regions (++common; +visible)

	Monospecific plantations	**Mix-species plantations**	**Urban or rural greening**	**Garden and yards**	**Agroforest lands**	**Forest enrichment**
Abies guatemalensis	+/CSAC, Asia, NA	Suggested	+/CSAC, NA	+/CSAC, Africa		
Aniba rosaeodora	++/CSAC	Suggested				
Aquilaria sp.	++/Asia	++/Asia	+ Asia	++/Asia	+/Asia, Africa	+/Asia
Araucaria araucana	+/CSAC	+/CSAC	+/NA	+/CSAC, NA, Africa	+/CSAC	
Dalbergia sp.	++/Asia	++/Asia, Africa, NA	++/Asia, Africa, NA	++/Asia, Africa, NA	+/Asia, Africa	
Fitzroya cupressoides	+/CSAC			+/CSAC, EU		
Swietenia macrophylla	++/NA, CSAC, Asia, Oceania	++/NA,CSCA	+Asia, NA,	+/Oceania, NA,		+/CSAC
Pericopsis elata	+/Africa	+/Africa				+/Africa
Prunus africana	+/Africa	+/Africa	+/Africa		+/Africa	+/Africa
Pterocarpus santalinus	+/Asia	+/Asia, Africa, NA	+/NA	+/NA		
Taxus sp.	++/Asia, NA	+/Asia	+/Asia	+/Asia		+/Asia

Possible characteristics and potential risks for plantations of high-value tree species.

<table>
<tr><th>Type of plantation</th><th>Human intervention</th><th>Environment</th><th>Ecological crashes</th><th>Community development</th><th>Forest-friendly</th><th>Parental stock</th><th>NDFs risks</th><th>LAFs risks</th></tr>
<tr><td>Monospecific plantations</td><td>Intensive</td><td>Non-natural</td><td>Medium-High</td><td rowspan="2">Low-medium (depends on scale)</td><td>Low</td><td rowspan="2">Self-owned or other-owned nurseries</td><td rowspan="5">Depends on the establishment of nurseries</td><td rowspan="2">Low</td></tr>
<tr><td>Mix-species plantations</td><td rowspan="5">Medium-intensive</td><td>Non-natural or Close-to-nature</td><td rowspan="2">Medium</td><td>Medium</td></tr>
<tr><td>Urban or rural greening</td><td rowspan="4">Non-natural</td><td rowspan="3">Medium-high</td><td>Low-Medium</td><td rowspan="4">Other-owned nurseries</td><td rowspan="3">Low-medium</td></tr>
<tr><td>Garden and yards</td><td>Medium</td></tr>
<tr><td>Agroforest lands</td><td rowspan="2">Low-medium</td><td>Medium-high</td></tr>
<tr><td>Forest enrichment</td><td>Weak-medium</td><td>Natural or semi-natural</td><td>Low-medium</td><td>High</td><td>Low and depends</td><td>High</td></tr>
</table>

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