

PRELIMINARY GUIDANCE ON TERMS RELATED TO THE ARTIFICIAL PROPAGATION OF CITES REGULATED PLANTS



Preliminary guidance on terms related to the artificial propagation of CITES regulated plants

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Introduction

Recent meetings of the Conference of the Parties (CoP) have adopted a number of Decisions on issues relating to artificial propagation of CITES regulated plants. At its 18th meeting (CoP18, Geneva, 2019) the Conference of the Parties adopted [Decision 18.178](#) on *Guidance on the term 'artificially propagated'* as follows:

18.178 Directed to the Secretariat

The Secretariat shall, subject to external funding:

- a) *commission the preparation of guidance materials for the Parties on aspects of artificial propagation including the terms 'under controlled conditions', 'cultivated parental stock' and the new source code or such terms as may be adopted at CoP18, to supplement the publication A Guide to the application of CITES source codes;*
- b) *report to the Plants Committee at its 26th meeting on progress on paragraph a); and*
- c) *after review and revision by the Plants Committee, if directed by the Plants Committee, publish the final guidance on the CITES website.*

Current Resolutions that are core to issues relating to artificial propagations are [Resolution Conf. 11.11 \(Rev. CoP18\)](#) on *Regulation of trade in plants*, [Resolution Conf. 10.13 \(Rev. CoP18\)](#) on *Implementation of the Convention for tree species* and [Resolution Conf. 16.10](#) on *Implementation of the Convention for agarwood-producing taxa*. The range of source codes and purpose of transaction codes are outlined in Resolution [Conf. 12.3 \(Rev. CoP18\)](#) on *Permits and Certificates*.

This guidance, which addresses paragraph a) of Decision 18.178, aims to explain the terminology used¹ in the Resolutions relevant to source codes A, D and Y and to help CITES Authorities understand how these Resolutions are applied to plants. *A Guide to the application of CITES source codes*² was produced by IUCN for CITES in 2017. The current guidance covers flora species only and updates, expands and complements the work carried out by IUCN.

Since the first formal definition of artificial propagation was adopted in [Resolution Conf. 2.12](#) in 1979, the CoP amended and expanded the definition to adapt to new technologies and methodologies in propagation of CITES-listed plants, and it dealt with specific challenges by adopting new Resolutions. At its 24th meeting, the Plants Committee was invited to discuss options for a new source code and consolidate some definitions into Resolution Conf. 11.11 (Rev. CoP17) ([PC 24 Doc. 16.1](#)). An informative overview of the evolution of Resolution Conf. 11.11 (Rev. CoP18) on the *Regulation of trade in plants* is given in information document [PC24 Inf.1](#) and on the discussions on plant production systems in information document [PC24 Inf.8. CoP18 Doc. 59.2](#) looked at *Source Codes for Plant Specimens in Trade* recommending a new intermediary source code between A and W to be termed Y to cover "assisted production"; the new source code was adopted in Resolution Conf. 11.11 (Rev. CoP18). [CoP18 Doc. 59.1](#) on *Guidance on the Term "Artificially Propagated"* explored a range of issues including the need for guidance to help Parties clearly understand and apply some of the requirements around the definition of artificial propagation, in particular in relation to the terms "cultivated parental stock" and "under controlled conditions" and also guidance on the new source code Y for assisted production.

¹ Terminology provided is for guidance only and does not represent a legal interpretation of these terms.

²https://cites.org/sites/default/files/eng/prog/captive_breeding/E-Source%20codes%20booklet%20-%20April%2017.pdf

Terminology

The following terms and excerpts from key CITES Resolutions form the framework for understanding how CITES interprets artificial propagation. Text in *italics* indicates a direct excerpt from the relevant CITES Resolution. The Annex to this document provides a visual guide to terms and definitions.

'Artificially propagated'

[Resolution Conf. 11.11 \(Rev. CoP18\)](#), paragraph 2, determines that the term '*artificially propagated*' shall be interpreted to refer to plants specimens that are:

- "a) *grown under controlled conditions; and*
- b) *grown from seeds, cuttings, divisions, callus tissues or other plant tissues, spores or other propagules that are either exempt from the provisions of the Convention or have been derived from cultivated parental stock;"*

'Under controlled conditions'

Paragraph 1 a) of Resolution Conf. 11.11 (Rev. CoP18) adopts the following definition for the terms 'under controlled conditions':

- "a) '*under controlled conditions*' means in a non-natural environment that is intensively manipulated by human intervention for the purpose of plant production. General characteristics of controlled conditions may include but are not limited to tillage, fertilization, weed and pest control, irrigation, or nursery operations such as potting, bedding or protection from weather."

The term '*under controlled conditions*' (Resolution Conf. 11.11 (Rev. CoP18), paragraph 2 a) refers to plants that are propagated and grown in a *non-natural environment* that is manipulated to promote optimal growing conditions and exclude predators and pests (see Annex: Figures A and B). A nursery, glasshouse or *tree plantation* (see 'Trees and artificial propagation' section) are examples of *controlled conditions*. Temporary annexation or appropriation of a piece of natural or semi-natural vegetation where wild plants occur is not *controlled conditions*. Such annexation might occur when a field boundary is moved to incorporate adjacent wild habitat in which the targeted species occurs; this area then receives little or no management until harvest occurs, after which the original field boundary is restored.

The key element of the term '*under controlled conditions*' is that there is a management system in place for the cultivation of the plants in an environment which is clearly distinct from their natural habitat. Such a system may or may not involve the establishment of clear boundaries from the natural environment, but should have procedures to enhance growth and prevent loss of plants to pests and diseases. The types of interventions may differ due to the characteristics of the taxa concerned, their cultivation and their propagation systems. In cases such as desertification control and afforestation, interventions occur within natural habitats and therefore clear boundaries cannot be easily determined. A clear definition of how the term 'boundaries' applies to plants has not yet been considered by the Plants Committee; however, use of this terminology as it relates to captive breeding in accordance with Resolution Conf. 10.16 (Rev) paragraph 1 (d), provides some guidance as follows: '*a controlled environment...that has boundaries designed to prevent animals, eggs or gametes of the species from entering or leaving the controlled environment...*'. It could be assumed that a similar interpretation could apply to a limited number of highly controlled and contained plant production systems, and that such conditions would create a relatively high maintenance environment where the controls to enhance production are evident throughout the life cycle of the plants involved. In all cases, the management of such production systems would be expected to have some level of record keeping in place, ensuring that the management system is maintained to an adequate level and that the plants produced are of high quality.

- ! Wild-collected plants are considered wild even if they have been maintained in *controlled conditions* for some time, e.g., from several weeks to years; however, this will be dependent on the plant group or specimen concerned. Furthermore, legally sourced wild-collected plants can be used to produce plant specimens in an *environment with some level of human intervention* (see sections on 'Source codes applicable to artificially propagated plants: A and D' and on 'Plant obtained through assisted production' pertaining to source code Y, for details).

'Cultivated parental stock'

[Resolution Conf. 11.11 \(Rev. CoP18\)](#), paragraph 1 b) adopts the following definition for the terms 'cultivated parental stock':

- "b) '*cultivated parental stock*' means the ensemble of plants grown under controlled conditions that are used for reproduction, and which must have been, to the satisfaction of the designated CITES authorities of the exporting country:
- i) *established in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild; and*
 - ii) *maintained in sufficient quantities for propagation so as to minimize or eliminate the need for augmentation from the wild, with such augmentation occurring only as an exception and limited to the amount necessary to maintain the vigour and productivity of the cultivated parental stock;"*

The term '*cultivated parental stock*' refers to the ensemble of wild-sourced plants brought into cultivation and grown under controlled conditions that are used for reproduction.

The *cultivated parental stock*, which originated from wild collected material, must have been *established in accordance with the provisions of CITES and relevant national laws and in a manner not detrimental to the survival of the species in the wild*³. Simply stated, this stock must have been obtained legally in CITES terms (i.e. must have met the legal acquisition requirements according to CITES Resolution Conf. 18.7 on *Legal acquisition findings*) and in terms of any national laws in the country of origin (see Annex: Figures A and B). There must be evidence that the plants have been acquired legally, for example, copies of permits, phytosanitary certificates, invoices, or authorization for collection by relevant authorities. In addition, the term *established ... in a manner not detrimental to the survival of the species in the wild* indicates that a non-detriment finding is required for the parental stock that is being set up (see Annex: Figure A).

The term '*cultivated parental stock*' is used in order to indicate that some addition of fresh wild collected plants is permissible following the establishment of the original parental stock. This should occur only as *"an exception and be limited to the amount necessary to maintain the [genetic] vigour and productivity of the cultivated parental stock"*. Clearly, such addition of wild plants needs to be managed, limited, legally acquired and not detrimental to the survival of the species in the wild if the plants are to be considered *cultivated parental stock*.

Resolution Conf. 11.11 (Rev. CoP18) does not indicate what frequency of addition of fresh stock is appropriate, nor what level of addition is appropriate. Requirements can differ between the wide range of plant groups included in the CITES Appendices, and it is left to the relevant Scientific Authority to give appropriate advice. In practical terms, the Scientific Authority can base their advice on information supplied by experts (such as horticulturalists from a botanic garden) on the plant group concerned and, for example, by liaising with other Parties that have addressed the same issues. Such addition of fresh stock should be *an exception and limited*.

³ Paragraph 1, b i) of Resolution Conf. 11.11 (Rev. CoP18).

Source codes applicable to artificially propagated plants: A and D

Codes 'A' and 'D' are used on permits and certificates to indicate the source of artificially propagated plant species. In both cases, plants are artificially propagated in accordance with the definitions contained in Resolution Conf. 11.11 (Rev. CoP18), paragraph 1 a) and b); however, the decision on applicability of the two source codes relies on an assessment of the purpose of the transaction (commercial or non-commercial), consideration of Articles VII, paragraphs 4 and 5⁴ and is dependent on the CITES Appendix, noting that artificially propagated hybrids of unannotated Appendix I plant species are to be treated as Appendix II plant species.

Resolution Conf. 12.3 (Rev. CoP18), paragraph 3, j) recommends that source codes A and D be used to indicate the following source of the plant specimens:

A *'plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP18), as well as parts and derivatives thereof, exported under the provision of **Article VII, paragraph 5** (specimens of species included in Appendix I that have been propagated artificially for 'non-commercial purposes', and specimens of species included in Appendix II and III)';*

D *'Appendix-I plants artificially propagated 'for commercial purposes', as well as part and derivatives thereof, exported under the provisions of **Article VII, paragraph 4**, of the Convention'.*

Concerning Article VII paragraphs 4 and 5 of the Convention:

- **Article VII, paragraph 4** states: *'specimens of a plant species included in Appendix-I artificially propagated for commercial purposes, shall be deemed to be specimens of species included in Appendix II.'* This means that those specimens can be traded under Article IV and imported under purpose code T (commercial purpose), while still being subject to a non-detriment finding (see Table 1).
- **Article VII, paragraph 5** states: *'Where a Management Authority of the State of export is satisfied that any specimens of ... a plant species was artificially propagated...a certificate by that Management Authority shall be accepted in lieu of any of the permits or certificates required under the provision of Articles III, IV and V'.* This means that certificates of artificial propagation can be used instead of permits; a non-detriment finding is not required prior to export of specimens but is still needed for the acquisition of the founder stock (see Table 1 for details).

Application of source code 'D' - a comparison between animals and plants

As it relates to animal specimens, Resolution Conf. 12.3 (Rev. CoP18) outlines that source code D should be used by Parties when trading *'Appendix-I animals bred in captivity for commercial purposes in operations included in the Secretariat's Register in accordance with Resolution Conf. 12.10 (Rev. CoP15) on [Registration of operation that breed Appendix-I animal species in captivity for commercial purposes](#)*. Parties that wish to export captive-bred animals of Appendix I species for commercial purposes should therefore register the relevant operations with the CITES Secretariat in order to qualify for the use of source code D.

Although Resolution Conf. 12.3 (Rev. CoP18) also indicates that source code D should be used for Appendix I artificially propagated plants exported for commercial purposes, it does not specifically refer to Resolution Conf. 9.19 (Rev. CoP15) on the *Registration of nurseries that artificially propagate specimens of Appendix -I plant species for export purposes*, meaning that the approaches are different for plant and animal taxa. This distinction is reflected in the preamble of Resolution Conf. 9.19 (Rev. CoP15), which recognises that *'the artificial propagation of plants is essentially different from captive breeding of animals, in particular with*

⁴ Document AC31 Doc. 19.3/PC25 Doc. 21 outlined the need for further guidance on whether Article VII, paragraphs 4 and 5 could be applied sequentially.

regard to the number of specimens produced, as well, in most cases, with regard to the time span between generations'.

Resolution Conf. 9.19 (Rev. CoP15) outlines the procedure for the registration of nurseries that export artificially propagated specimens of Appendix-I plant species. Registration is the responsibility of the Management Authority, in consultation with the Scientific Authority within the Party where the nursery operation is located; a Register of nurseries is maintained by the Secretariat on the [CITES website](#). The registration process is intended to facilitate the trade by making the use of the simplified procedure for the issuance of export permits to each registered nursery⁵. Whereas all animal specimens exported from CITES registered facilities need to be appropriately and securely marked, Appendix I artificially propagated plants from registered nurseries need to be packed and labelled in such a way that specimens are clearly separated from wild-collected or Appendix II artificially propagated plants within the same consignment.

Furthermore, as acknowledged in Resolution Conf. 9.19 (Rev. CoP15), nurseries that are not included within the CITES Register *may still continue exporting Appendix I artificially propagated specimens by using standard procedures for obtaining export permits*, thus Appendix I plants that were artificially propagated for commercial purposes in nurseries not included in the CITES Register for 'commercial' and 'export' purposes, can still be exported under Article VII, paragraph 4, using source code D.

If a nursery artificially propagates Appendix-I plants **from wild seeds or spores** for export, the nursery concerned should be registered as an operation with the CITES Secretariat in accordance with Resolution Conf. 9.19 (Rev. CoP15). The registration process is required to allow a Party to benefit from the exception outlined in paragraph 4 of Resolution Conf. 11.11 (Rev. CoP18) on *Regulation of trade in plants* ⁶.

In summary:

- **Source code D** should be used for:
 - o artificially propagated plant specimens, including their parts and derivatives, of Appendix I species that are traded for commercial purposes in the context of the application of Article VII, paragraph 4; and
 - o Appendix I artificially propagated specimens grown from wild seeds or spores, in registered nurseries, for commercial purposes, within a range State (according to paragraph 4 of Resolution Conf. 11.11 (Rev. CoP18)).
- **Source code A** should be used for all remaining artificially propagated plant specimens, including their parts and derivatives, in the context of the application of Article VII, paragraph 5, of:
 - o Appendix I species propagated and traded for non-commercial purposes, including hybrids derived from one or more unannotated Appendix I species⁷, and
 - o Appendix II and III species, irrespective of the purpose of propagation and trade.

Trees and artificial propagation

As the criteria for artificial propagation laid down in Resolution Conf. 11.11 (Rev. CoP18) were originally designed with horticultural plants in mind, issues with determining source codes arose when the first commercially traded timber trees were listed. Applying these "horticultural" criteria to trees and plantations posed challenges for CITES Authorities.

⁵ In accordance with Article VII, paragraph 4, of the Convention, and with Resolution Conf. 12.3 (Rev. CoP18).

⁶ To fulfil the exception, the Appendix I taxa must be difficult to establish as a parental stock because specimens take a long time to reach maturity, and the propagation must take place in controlled conditions in a range State, and in a nursery registered with the CITES Secretariat.

⁷ Resolution Conf. 11.11 (Rev. CoP18) paragraph 6, b) iii) states that "*artificially propagated hybrids derived from one or more unannotated Appendix-I species or other taxa shall be regarded as being included in Appendix II and entitled to all exemptions applicable to artificially propagated specimens of species included in Appendix II*".

The Conference of the Parties took a pragmatic approach to defining "artificially propagated" in [Resolution Conf. 10.13 \(Rev. CoP18\)](#) on *Implementation of the Convention for tree species* (see Annex: Figure C) stating that [paragraph 1.f)]:

Timber or other parts or derivatives of trees grown in monospecific plantations be considered as being artificially propagated in accordance with the definition contained in Resolution Conf. 11.11 (Rev. CoP18).

- ! Simply stated, timber or other parts or derivatives obtained from trees planted and grown in a monospecific (single species) plantation are considered artificially propagated if the seeds or other propagules from which the trees are grown were legally acquired and obtained in a non-detrimental manner as outlined in Resolution Conf. 11.11 (Rev. CoP18). This definition of artificial propagation applies only to tree species (source codes A or D apply as described above).

Specimens derived from mixed-tree species plantations do not meet the definition of artificially propagated in accordance with Resolution Conf. 10.13 (Rev. CoP18) or Resolution Conf. 11.11 (Rev. CoP18), and therefore do not qualify for the use of source code A. However, they may meet the criteria for source code Y (see section on 'Plant obtained through assisted production').

Special cases and exceptions:



Araucaria araucana: The Monkey Puzzle or Puhúen tree is the national tree of Chile; it is an iconic and highly valued species for Chile's indigenous people. This tree produces large seeds – *piñones* - which are edible and an important food source. The trees are grown from wild-collected seeds in nurseries, and the resultant plants have been exported internationally since 2004. As they were grown directly from wild seeds, the Appendix I seedlings could not be legally exported for trade because they did not fulfil the then definition of artificially propagated. The Parties therefore sought a solution to support sustainable harvest and trade of the species.



The original version of current paragraph 4 of Resolution Conf. 11.11 (Rev. CoP18) was adopted at CoP13 in 2004 based on document CoP13 Doc. 51 and related to the example of *A. araucana*. Today, paragraph 4 recommends that a limited exception may be granted for some Appendix I specimens of some long-lived, late-maturing Appendix-I species (*where for the taxon involved, the establishment of a cultivated parental stock presents significant difficulties in practice because specimens take a long time to reach reproductive age, as for many tree species*), allowing qualifying specimens to be deemed to be artificially propagated if specific criteria are met. The criteria include that the Appendix-I material is grown under controlled conditions in a range State, from propagules collected from the wild within that same range State (the country of origin of the propagules), determined by the Management Authority to be legally acquired and by the Scientific Authority to be both non-detrimental and beneficial to the conservation of wild populations. Additional specifications are found in paragraph 4 a), b) and c) of Resolution Conf. 11.11 (Rev. CoP18). Any range State using this exception is required to register the nurseries concerned with the CITES Secretariat and fulfil the criteria outlined in paragraph 4. of Resolution Conf. 11.11 (Rev. CoP18). Nurseries using the paragraph 4 exception will be indicated as such in the CITES Register maintained on the CITES website.



***Aquilaria* spp. and *Gyrinops* spp. (Agarwood)**: Agarwood specimens are highly traded CITES non-timber forest products. Trade in agarwood specimens includes extract, oils, perfumes, chips, beads and powder. The origin of agarwood is fungi-infected tree heartwood.

Range States of agarwood-producing tree species proposed that cultivation of the trees is very different from that of conventional forestry, and the CITES definitions of artificial propagation were inadequate. As a result, at its sixteenth meeting (CoP16, Bangkok, 2013), the Conference of the Parties adopted [Resolution Conf. 16.10](#) on *Implementation of the Convention for agarwood-*

producing taxa, adopting a definition of "artificially propagated specimens" specifically for agarwood-producing taxa as follows:

Regarding artificially propagated specimens

1. Agrees that:

- a) the current definition of 'artificially propagated' in Resolution Conf. 11.11 (Rev. CoP18) does not meet the circumstances of agarwood-producing taxa, due to the definition of the term 'under controlled conditions', and the source of parental stock is not suitable and fully complied with the plantation activities of agarwood-producing taxa; and
- b) the source of seeds or propagules for cultivation of agarwood-producing species may be obtained from the wild according to the definition of 'cultivated parental stock' in Resolution Conf. 11.11 (Rev. CoP18);

2. Adopts the following definition for terms used in this Resolution:

For agarwood-producing taxa, 'under controlled conditions' means in a tree plantation, including other non-natural environment, that is manipulated by human intervention for the purpose of producing plants of plant parts and derivatives;


3. Determines that the term 'artificially propagated' shall be interpreted to refer to plant specimens of agarwood as follow:

- a) grown under controlled conditions; and
- b) grown from seeds, seedlings, saplings, cuttings, grafting, marcotting/air-layering, divisions, plant tissues or other propagules that have been derived from wild or cultivated parental stocks, according to the definition of cultivated parental stock in Resolution Conf. 11.11 (Rev. CoP18).

4. Agrees that trees of agarwood-producing taxa grown in cultivation such as:

- a) gardens (home and/or community garden); and
- b) state, private or community production plantation, monospecific or mixed species, shall be considered to be artificially propagated in accordance with the definition above.

These changes significantly extended the definition of artificial propagation for agarwood-producing taxa; for example, agarwood derived from trees grown in gardens and mixed species plantations grown from wild-collected seeds, plants parts and sapling can be considered artificially propagated.

 [Resolution Conf. 16.10](#) should be referred to when considering the issue of artificial propagation of agarwood-producing taxa, which is currently listed in CITES Appendix II as *Aquilaria* spp. and *Gyrinops* spp. (see Annex: Figure D).

Other plant tissues and other propagules

Paragraph 2 b) of Resolution Conf. 11.11 (Rev. CoP18) states that artificially propagated shall refer to plant specimens that are, *inter alia*, "grown from seeds, cuttings, divisions, callus tissues or other plant tissues, spores or other propagules that are either exempt from the provisions of the Convention or have been derived from cultivated parental stock"⁸.

This list of terms has been interpreted by the Parties to embrace the range of plant parts used in propagation and the range of propagation techniques. The terms *other plant tissues* and *other propagules* are not formally defined. The term *other propagules* originated from [Resolution Conf 2.12](#) on *Regulating trade in artificially*

⁸ Paragraph 2, b of Resolution Conf. 11.11 (Rev. CoP18).

propagated specimens under the Convention, adopted in San Jose, Costa Rica, in 1979. The means by which plants can be propagated and the range of potential source material from which plants can be reproduced has expanded dramatically since that time. The terms *other plant tissues* and *other propagules*, in effect, have been interpreted by Parties to reflect such changes. This seems practical given the expanding range of source material and procedures for artificial propagation.

In the case of CITES Appendix-I listed plants, the individual plant, "*alive or dead*" and "*any readily recognizable part or derivative*" are covered under CITES⁹. In effect, everything is covered. In the case of Appendix II and III-listed plant species, specimens covered under CITES include plants "*alive or dead*" and "*any readily recognizable part or derivative thereof specified in Appendices II and III in relation to the species*". The parts and derivatives covered or exempted are specified in the Appendices by an annotation to the relevant listing. For example, in the case of the Appendix II medicinal plant *Hydrastis canadensis* (Goldenseal or Yellow root), only trade in the underground parts of the plant, as specified in the [Annotation #8](#)¹⁰, are covered under CITES. All other parts and derivatives are not specified in the example given of *Hydrastis canadensis* are thus not covered by the Convention.

In accordance with paragraph 2 b) of Resolution Conf. 11.11 (Rev. CoP18), source material for artificial propagation should be either exempt from CITES or should *have been derived from cultivated parental stock*. The preamble of Resolution Conf. 11.11 (Rev. CoP18) also states that *plant specimens may legally enter international trade under exemptions from the provisions of CITES, provided by an annotation, and that the qualification for such an exemption may cease outside the country of origin*. Propagules are, in fact, often exempted by plant # annotations; for example, plants annotated with [Annotation #4](#) paragraph b) which exempts *seedling or tissue cultures obtained in vitro, in solid or liquid media, transported in sterile containers*. In such cases where plants are grown from legally imported exempt seedlings or propagules, it would be the responsibility of the country of export to determine whether the plant specimens intended for export meet the definition of artificially propagated plants. Therefore, this stock should be managed under the terms of Resolution Conf. 11.11 (Rev. CoP18).

'Plant obtained through assisted production' – Source Code Y

'*Plant obtained through assisted production*' refers to a plant or parts or derivatives thereof that does not meet the definition of artificial propagation and therefore does not qualify for source code A. However, it is not a wild plant because it was propagated or planted in an environment with some human intervention in its cultivation or production; therefore, it does not qualify for source code W either.

An example of 'assisted production' could be bulbs grown in a hillside field in the Caucasus as a second crop under maize. In this situation, the parent stock has been originally sourced from the wild (exact timing unclear); there is some management by local people; and harvest of the bulbs takes place after the maize has been cleared. There is limited record keeping, and the boundaries with nearby wild populations may not be fully clear. The bulbs reproduce very well in these partially managed cultivation fields and are harvested and sold to middlemen acting for bulb exporters. A similar situation may occur, for example, for orchids grown within a village garden in South-East Asia – where epiphytic orchid stock is collected from natural habitat and is cultivated on trees and rocks adjacent to a village. In both examples, the criterion of "controlled conditions" is not met.

⁹ Article 1 (b) (iii) of the text of the CITES Convention.

¹⁰ Annotation #8: Underground parts (i.e. roots, rhizomes): whole, parts and powdered.

In cases such as the examples outlined above, *assisted production* is cultivation being carried out by local communities without the use of advanced technologies, and where it may be a significant source of income

The Conference of the Parties at its 18th meeting (CoP18, Geneva 2019) amended Resolution Conf. 11.11 (Rev. CoP18)¹¹ to address the alternative plant production system that is described as '*plants obtained through assisted production*'. These are defined as plants or specimens thereof that:

- i) *do not fulfil the definition of "artificially propagated", and*
- ii) *are considered not to be 'wild' because they are propagated or planted in an environment with some level of human intervention for the purpose of plant production.*

Propagation material can come from a range of sources, including from the wild, as long as that collection is legally acquired and non-detrimental to the survival of the species in the wild.

The exact amount of human intervention to qualify as assisted production (source code Y) is not defined in Resolution Conf. 11.11 (Rev. CoP18) and is determined by the national Scientific Authority. The key element for plants obtained through 'assisted production' is that such specimens can be propagated from plant material that is collected from the wild in a manner that is non-detrimental to wild populations, and grown in an environment with some level of human intervention in accordance with the provisions of CITES and relevant national laws. It is likely that there will be a range of plant production systems that qualify as 'assisted production' for which source code Y could be applicable. The example given earlier of the temporary annexation of a portion of wild habitat to provide material for harvest at the end of one season (see 'under controlled conditions'), would qualify for source code W, Wild as there is no real management of this plant material until harvest occurs. However, if boundaries were added and the plants were grown with some level of human assistance for the purpose of plant production, it might then be considered appropriate for 'assisted production' and source code Y. If plants are propagated from or derived from plant material that is exempt, or artificially propagated, or plant propagation material that is collected sustainably from wild populations, source code Y could apply.

In effect, the situation in relation to the application of source codes W and Y is a gradient or cline, and it is more challenging to define the boundaries between these two codes compared with source codes A and W. In effect, the source code Y was adopted by Parties to allow them to assess situations that fall within this cline and apply the new source code as they determine to be appropriate. Further examples of the suitability 'assisted production' and source code Y are likely to be available in a few years' time when Parties have implemented its application more widely.

Export permits can be granted for specimens produced by 'assisted production' methods if¹²:

- a) *A Management Authority of the State of export is satisfied that the specimen to be exported was obtained legally; and*
- b) *A Scientific Authority of the State of export has advised that the export will not be detrimental to the survival of the species.*

For this group of *assisted production* plants, the new source code "Y" can now be used. This allows Parties to permit methods of cultivation that produce plants which do not qualify as artificially propagated and the subsequent use of source code "A" which no longer need to be traded as wild (see Annex: Figure E).

Interpretation and application of source codes for plants

Source codes on CITES permits and certificates are reported as a one-letter code (see column 'Codes' in Table 1). According to Resolution Conf. 12.3 (Rev. CoP18) on *Permits and certificates*, there are seven options

¹¹ And, accordingly, Resolution Conf. 12.3 (Rev. CoP18) on *Permits and Certificates*.

¹² Paragraph 10 a) and b) of Resolution Conf. 11.11 (Rev. CoP18).

to indicate the original source in permits and certificates of the specimen of a plant species being traded (W, Y, D, A, U, I and O); all of these except the new source code Y are reflected in current version of '*A Guide to the application of CITES source codes*'¹³.

When determining a source code, careful consideration should be given to the origin of the species, the purpose of the transaction (e.g., specimens traded for commercial or non-commercial purpose, such as for a botanic garden) and to the CITES Appendix in which the taxon concerned is listed.

Descriptions of the range of sources of plant specimens and guidance on the use of source codes are provided in Table 1 (and Figure A). If a non-detriment finding (NDF) and/or a legal acquisition finding (LAF) is required, this is also indicated in Table 1 (and Figure A).

¹³ The guidance provided herein complements and expands upon the guidance provided within the relevant Resolutions and the 2017 IUCN Guide to provide further clarity to Parties on the use of plant source codes.

Table 1. List of source codes for plants and parts and derivative thereof, their definition and application, and interpretation of the NDF requirements under the provisions of Articles III and IV of the Convention and LAF requirements under the provisions of Articles III, IV and V of the Convention. Underlined text refers to the purpose of the transaction; **bold** text indicates the CITES Appendix (App). Unless otherwise indicated by a footnote, all definitions are sourced from Resolution Conf. 12.3 (Rev. CoP18) on *Permits and certificates*.

Source codes	Description	Definition	Application	Requirement for a non-detriment finding (NDF)	Requirement for a legal acquisition finding (LAF) or other legal finding ¹⁴
A	Artificially propagated plant	Plants that are artificially propagated in accordance with Resolution Conf. 11.11 (Rev. CoP18), as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 5 (specimens of species included in App I that have been propagated artificially for <u>non-commercial purposes</u> and specimens of species included in App II and III) ¹⁵ . Artificially propagated hybrids of unannotated App I plant species are treated as App II for purposes of Article VII, paragraph 5 ¹⁶ .	To be used for: App I - <u>non-commercial purposes</u> App II and III : <u>all purposes</u> .	Yes: only for founder stock of App I and II listed plants used to establish the cultivated parental stock in the propagation system involved ¹⁷ .	Yes: for founder stock of App I, II and III listed plants used to establish the cultivated parental stock in the propagation system involved ¹⁸ and for re-export to ensure prior trade was in compliance with CITES.
D	Artificially propagated plant	Appendix-I plants artificially propagated for <u>commercial purposes</u> , as well as parts and derivatives thereof, exported under the provisions of Article VII, paragraph 4, of the Convention.	To be used for: App I - <u>commercial purposes</u> ;	Yes: for founder stock of App I listed plants used to establish the cultivated parental stock in the propagation system involved ¹⁷ . Yes: for specimens treated as App II under Article VII, paragraph 4 and exported under Article IV.	Yes: for founder stock of App I listed plants used to establish the cultivated parental stock in the propagation system involved ¹⁹ ; Yes: for export permit of App I listed plants ²⁰ , and for re-export to ensure prior trade was in compliance with CITES.
I	Confiscated or seized	Specimens that were acquired illegally; imported or (re-)exported in violation of the Convention ²¹ .	All Appendices.	An NDF is required by the Party that confiscated the specimen if it allows the specimen to enter back into trade (see Resolution Conf. 17.8, paragraph 8).	Not applicable, except for export or re-export of confiscated specimens, under limited circumstances in accordance with Resolution Conf. 17.8.

¹⁴ Resolution Conf. 18.7 on Legal acquisition findings.

¹⁵ In addition to Resolution Conf 12.3 (Rev. CoP18), for the definition of artificial propagated specimen for agarwood-producing taxa the reader must refer to Resolution Conf. 16.10, and for tree species must refer to Resolution Conf. 10.13 (Rev. CoP18).

¹⁶ Paragraph 5 of the Interpretation section of the CITES Appendices.

¹⁷ Resolution Conf. 11.11 (Rev. CoP18).

¹⁸ Resolution Conf. 11.11 (Rev. CoP18).

¹⁹ Resolution Conf. 11.11 (Rev. CoP18).

²⁰ Article III 2 (b) of the CITES Convention.

²¹ [Resolution Conf. 17.8](#) on Disposal of illegally traded and confiscated specimens of CITES-listed species.

Source codes	Description	Definition	Application	Requirement for a non-detriment finding (NDF)	Requirement for a legal acquisition finding (LAF) or other legal finding ¹⁴
O	Pre-Convention	Specimens that were acquired before the provisions of the Convention applied to that specimen ²² .	All Appendices. Source code O may be used with other source codes. To be used only in pre-Convention certificates. Date of acquisition is defined in Resolution Conf. 13.6 (Rev.CoP18) .	Not applicable.	Verification of date of acquisition, as defined in Resolution Conf. 13.6 (Rev. CoP18) .
U	Unknown	The source is unknown (source code U must be justified).	All Appendices. Specimens to be traded as source code 'U' are treated the same as source code 'W'.	Yes: see W below.	Yes: see W below.
W	Wild	Specimens taken from the wild, as well as parts and derivatives thereof.	All Appendices.	Yes: for exports of App I and II listed plants ²³ ; Yes: for imports of App I listed plants ²⁴ .	Yes: for exports of plants in all Appendices ²⁵ ; Yes: for imports of App I listed plants ²⁶ . Yes: for re-export of App I and II listed plants ²⁷ .
Y	Assisted production	Specimens of plants that fulfil the definition for 'assisted production' in Resolution Conf. 11.11 (Rev. CoP18) as well as parts and derivatives thereof.	All Appendices.	Yes: for exports of App I and II listed plants. Yes: for imports of App I listed plants.	Yes: for exports of plants in all Appendices ²⁸ . Yes: for imports of App I listed plants ²⁹ . Yes: for re-exports of App I and II listed plants ³⁰ .

²² Article VII, paragraph 2 of the CITES Convention; Resolution Conf. 13.6 (Rev. CoP18).

²³ Article III 2 (a) and Article IV 2 (a) of the CITES Convention.

²⁴ Article III 3 (a) of the CITES Convention.

²⁵ Article III 2 (b), Article IV 2 (b) and Article V 2 (a) of the CITES Convention.

²⁶ Article III 3 (c) of the CITES Convention.

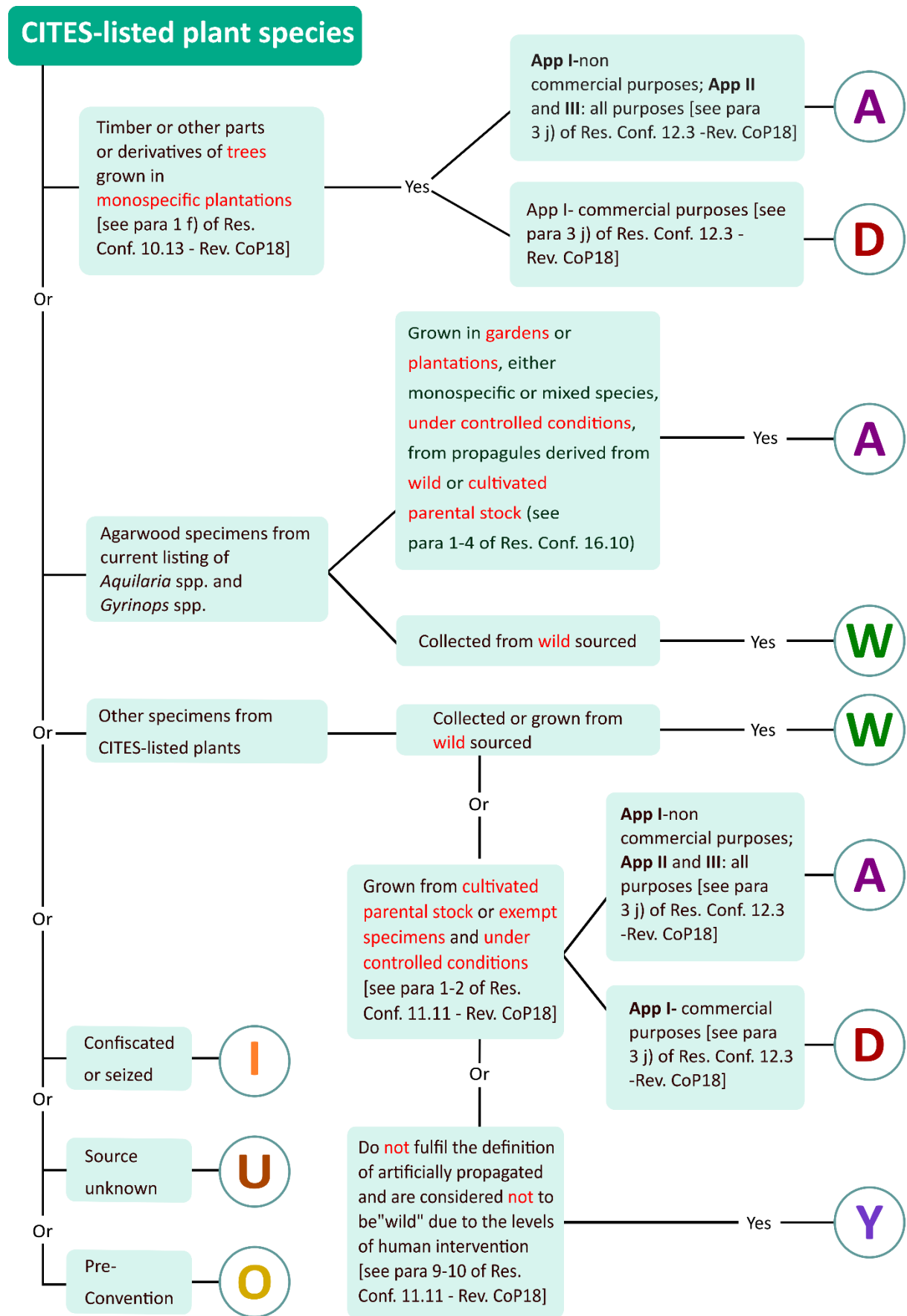
²⁷ Article III 4 (a) and Article IV 5 (a) of the CITES Convention.

²⁸ Article III 2 (b), Article IV 2 (b) and Article V 2 (a) of the CITES Convention.

²⁹ Article III 3 (c) of the CITES Convention.

³⁰ Article III 4 (a) and Article IV 5 (a) of the CITES Convention.

Figure 1. Flow chart differentiating the source codes that can be used for CITES-listed plants.

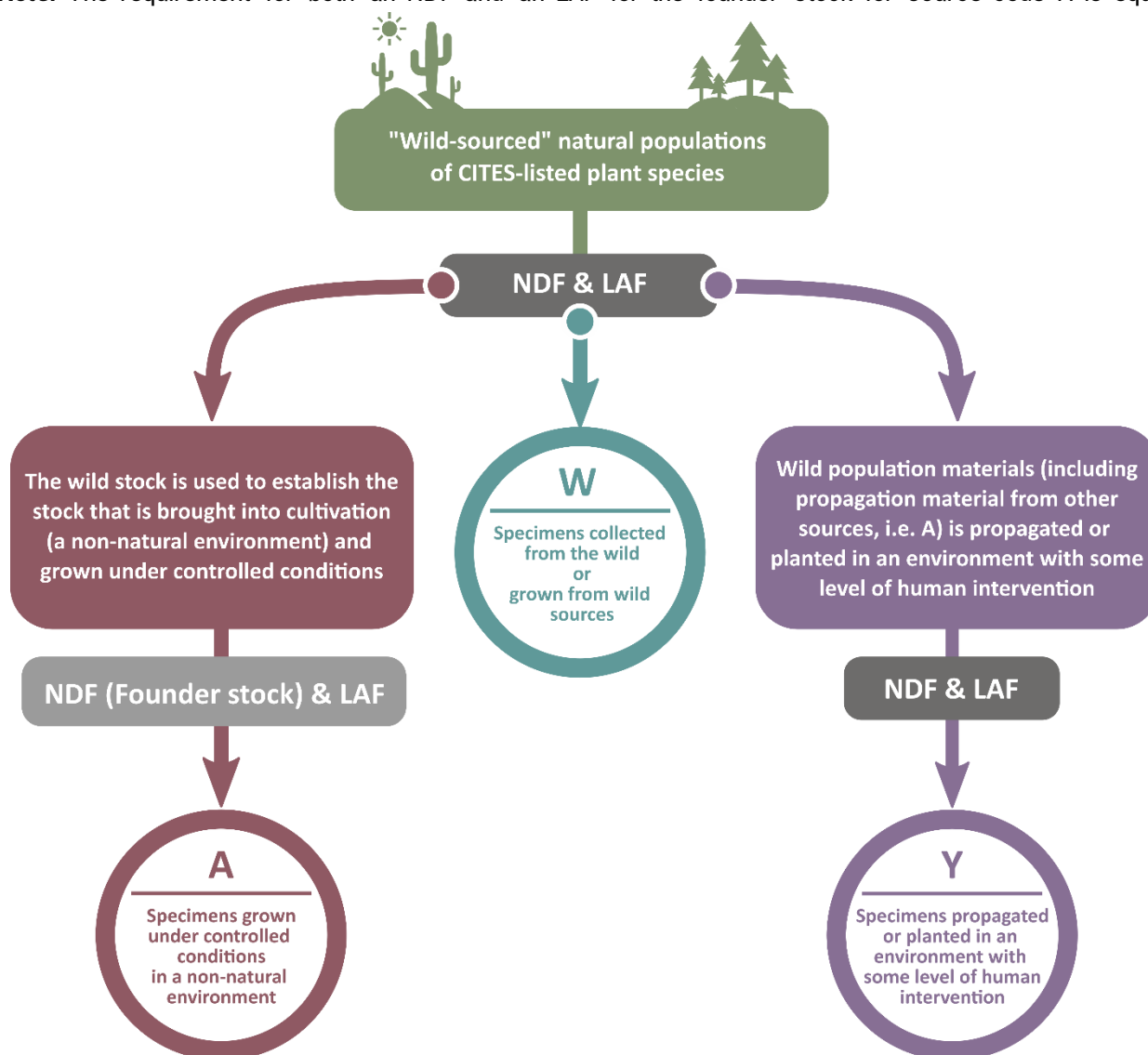


Annex: A visual guide to NDF-LAF requirements, terms and definitions

This Annex provides a series of figures that help readers to visualise the legal and scientific requirements for trade in CITES-listed plants under three source codes - **Figure A**, as well as the main terms and definitions used in CITES Resolutions concerning artificially propagated plants: 'under controlled conditions' and 'cultivated parental stock' - **Figure B**; timber producing trees - **Figure C**; agarwood producing taxa - **Figure D**; and assisted production - **Figure E**.

Figure A: Overview of the differences between the source codes ('A', 'W' and 'Y'), as well as the stage at which a legal acquisition finding (LAF) is required by a Management Authority and a non-detriment finding (NDF) is required by a Scientific Authority for trade in CITES-listed plants.

Note: The requirement for both an NDF and an LAF for the founder stock for source code A is equally



applicable to source code D. Both an NDF and an LAF are also required for the issuance of an export permit for the qualifying source code D specimens intended for international trade that are treated as Appendix II under Article VII, paragraph 4 and traded under Article IV. LAF are required for all original collections of parental stock, as well as acquisition of cultivated parental stock from suppliers that produce specimens that are propagated in accordance with Resolution Conf. 11.11 (Rev. CoP18).

Figure B: The main terms concerning source code 'A' for "artificially propagated" plants are: 'under controlled conditions' and 'cultivated parental stock' [Resolution Conf. 11.11 (Rev. CoP18)].

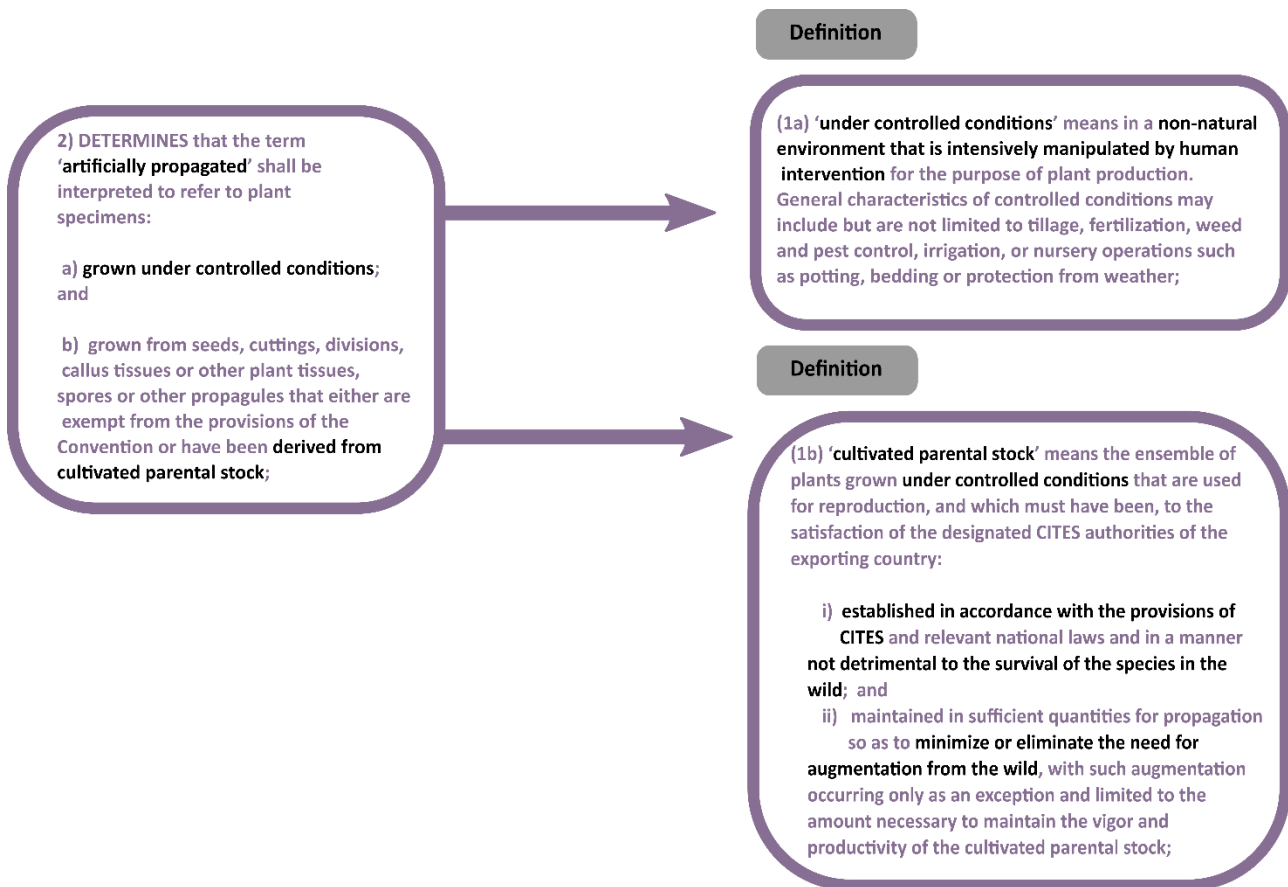


Figure C: Definition of "artificially propagated" for timber producing trees [Resolution Conf. 10.13 (Rev. CoP18)].

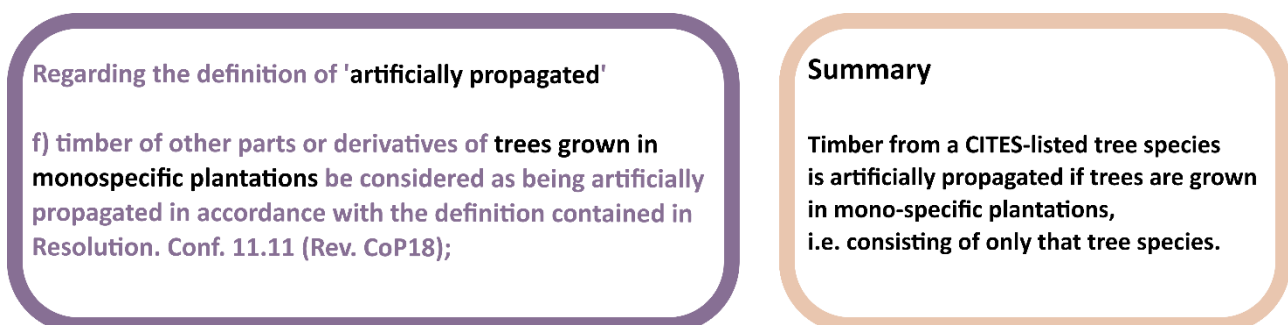


Figure D: Definition of “artificially propagated specimens” for agarwood-producing taxa of the genera *Aquilaria* and *Gyrinops* (Resolution Conf. 16.10).

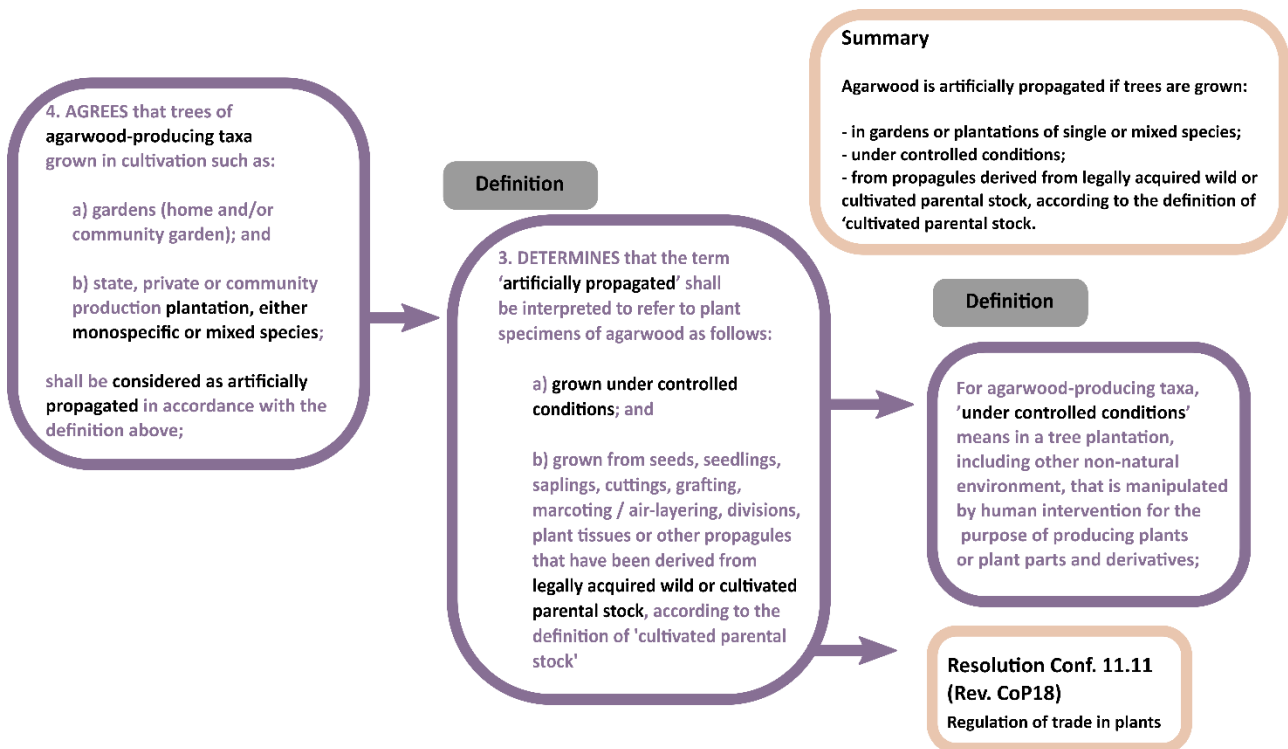


Figure E: Main criteria for plants (including parts and derivatives thereof) obtained through ‘assisted production’ (source code Y) is that plants are propagated or planted in an environment with some level of human intervention for the purpose of plant production.

