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

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Nineteenth meeting of the Plants Committee
Geneva (Switzerland), 18-21 April 2011

Timber issues

ANIBA ROSAEODORA (DECISION 15.90)

1. This document has been submitted by the interim Vice-Chair of the Plants Committee with the assistance of Argentina and the United Kingdom of Great Britain and Northern Ireland, at the request of the Chair of the Committee*.

2. At its 15th meeting (CoP15, Doha, 2010), the Conference of the Parties amended Appendix II to include the species *Aniba rosaeodora*, following its adoption of the amendment proposal submitted by Brazil (CoP15 Prop. 29). The amendment entered into effect on 23 June 2010.

3. The species is listed with annotation #12, that is "logs, sawn wood, veneer sheets, plywood and essential oil (excluding finished products packaged and ready for retail)".

4. Additionally, to assist in the identification of specimens of the species in trade, CoP15 adopted Decision 15.90 on *A. rosaeodora*, which establishes that:

   Trading range States and importing Parties working with the Plants Committee, should:

   a) identify the best methods or potential methods for the identification of essential oil and, if required, wood;

   b) produce identification material and guidance;

   c) identify appropriate annotations to complement the proposed identification methods;

   d) explore whether additional species need to be listed to support effective identification and regulation of wood and oil;

   e) explore mechanisms for making non-detriment findings for this species; and

   f) report on their work at the 16th meeting of the Conference of the Parties (CoP16) and, if necessary, prepare additional amendment proposals for CoP16.

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5. On 24 August 2010, the Secretariat published Notification to the Parties No. 2010/027 on *Information to be submitted for the 19th meeting of the Plants Committee and the 25th meeting of the Animals Committee*, paragraph d) of which specified the information that range States and importing Parties of *Aniba rosaeodora* and *Bulnesia sarmientoi* should submit by 15 January 2011 for consideration at PC19.

6. Additionally, on 19 November 2010, the Secretariat published Notification to the Parties No. 2010/036 on *Annotations for* Aniba rosaeodora *(Brazilian rosewood),* Bulnesia sarmientoi *(palo santo) and* Euphorbia antisyphilitica *(candelilla)* in response to requests for clarification from representatives of the private sector on the scope of coverage of the annotations and how they should be interpreted. The Secretariat, noting that the Conference of the Parties had not defined some terms used in the annotations and seeking to provide guidance on implementation, indicated that it had used the following working definitions of certain terms used in the annotations:

   - 'Essential oil' means a hydrophobic liquid obtained from natural plant material by distillation with water or steam. The essential oil is subsequently separated from the aqueous phase by physical means.

   - 'Extracts' means substances extracted from raw plant material, often by using a solvent such as ethanol or water.

   - 'Finished products' means specimens that have been prepared for end use and that require no further alteration to effect their purpose.

   - 'Packaged and ready for retail trade' means in a state fit for being sold directly to or used by the general public, and includes 'testers'.

7. With a view to obtaining additional information for the implementation of Decision 15.90 on *A. rosaeodora*, on 7 January 2011, the Scientific Authority of Mexico sent a questionnaire to the Management and Scientific Authorities of range States and exporting and importing Parties of the species [the Bolivarian Republic of Venezuela, Brazil, Colombia, Ecuador, France (including French Guiana), Japan, Peru, Suriname and the United States of America], based on information provided in the amendment proposal adopted at CoP15.

8. The questions with respect to *A. rosaeodora* were:

   i. What do you think are the best practical methods (i.e. that can be used by border and Customs officers) to identify the essential oil and, if required, wood of the species in trade?

   ii. Do you have identification materials for such trade? If so, please describe and, if possible, provide them.

   iii. Do you consider that annotation #12 is adequate to regulate trade in logs, sawn wood, veneer sheets, plywood and essential oil of *Aniba rosaeodora*? If not, please explain why and provide suggestions for modifying it.

   iv. Please indicate whether additional species need to be listed to support effective identification and regulation of *A. rosaeodora* wood and oil.

   v. Please indicate the harvest and management methods used to ensure the sustainable use of *A. rosaeodora* in compliance with Article IV of the Convention.

Analysis of responses to Notification 2010/027 and to the questionnaire of the Scientific Authority of Mexico

9. Two Parties (Canada and the United States) responded to Notification to the Parties No. 2010/027, and six responded to the questionnaire circulated by the Scientific Authority of Mexico (Brazil, China, Germany, Peru, the United Kingdom of Great Britain and Northern Ireland and the United States). The Annex to this document includes a compilation of the responses received.

   i. With regard to methods for identifying the essential oil and wood:

   There appears to be consensus that the focus should be on identifying the essential oil, not the wood, although China suggests that materials for identification of the wood should be prepared. With regard to the essential oil, Brazil and Peru note that the best method of identification is gas chromatography.

Germany and the United Kingdom concur, indicating that the best method is laboratory chemical analysis, which cannot be easily performed by Customs inspectors and officials. The United Kingdom notes that an “expert analyst” may be able to determine the amount of oil in a fragrance mixture or mix of other oils, but points out that the ability to do so depends on the amount of oil present in the mixture and that the level of confidence in the accuracy of the results may therefore vary considerably. The United States indicates that it has not had enough experience in implementing the listing to determine the best methods of identification.

In response to Notification No. 2010/027, Canada suggests that the best method of identification may be the one developed under the relevant international standard (ISO 3761-2005), but notes that it appears necessary to develop standards of greater rigour for characterizing and differentiating essential oils at the species level.

ii. With regard to identification materials:

The countries all agree that no identification materials exist. Brazil is of the view that they are not needed. Germany and the United Kingdom, on the other hand, suggest that it is the exporting country that should develop such materials or that the industry should be consulted for assistance. Both these countries note that most importing countries have published standard specifications for the Brazilian rosewood oil and that there is also an ISO standard that defines the characteristics required by the industry.

iii. With regard to whether annotation #12 is adequate to regulate trade in *A. rosaeodora* specimens:

Brazil, China and Peru consider the annotation adequate. Brazil, referring to the annotation in relation to essential oil, states that pure oil, oil in solutions and oil derivatives should be regulated, but not solutions at concentrations of under 1 %. The United Kingdom suggests that a clear definition of “essential oil” is needed in order to clarify whether the term covers pure oil, raw oil, oil mixed with other oils, oil in bulk and oil as a finished product. The United Kingdom also notes that the participation of the International Fragrance Association (IFRA) during PC19 will be helpful in that regard. Canada, in response to Notification No. 2010/027, points out that CITES should recognize international standards for the chemical content of the essential oil or oil derivatives in order to achieve the level of regulatory specificity required by the Convention.

Germany and the United Kingdom also suggest considering the possibility of removing the bracketed language "(excluding finished products packaged and ready for retail trade)", which could be seen as superfluous since the annotation indicates what is included in the Appendices, and anything that is not mentioned is therefore not covered. In addition, with a view to reducing the number of annotations, they suggest considering the possibility of merging annotation #12 with other existing annotations. Finally, the United States indicates that it has not had sufficient time to determine whether the annotation is adequate.

iv. With regard to look-alike issues:

Brazil does not consider it necessary to include other species in the CITES Appendices, but Germany, Peru, the United Kingdom and the United States request clarification as to whether other species of the genus, such as *Aniba fragrans* and *Aniba parviflora*, are harvested for oil extraction and whether it is possible to distinguish the essential oil of *A. rosaeodora* from that of those species.

Peru suggests that other species of the family Lauraceae should be analysed and points out that linalool is present in other herbaceous plants such as lavender and bergamot. Canada, in its response to Notification No. 2010/027, suggests that additional species should be listed only if species-level identification of essential oil components proves impossible or impractical.

v. With regard to sustainable use of *A. rosaeodora* (NDFs):

Only Brazil and Peru responded to this question. Brazil indicates that it already had rules for the management of the species and that, following the listing of *A. rosaeodora* in the CITES Appendices, a specific standard for the species is being drawn up in conjunction with the scientific committee. Peru notes that it has been shown that the essential oil is also found in the leaves and suggests a pruning plan for trees of 5 years or older.

Conclusions

10. With regard to paragraphs a), b), c) and d) of Decision 15.90 (questions i to iv of the questionnaire) additional work is required in order to reach consensus as importers and exporters have different perspectives on the issues, in particular:

    i. The need to identify the essential oil is recognized, and methods for doing so exist; however, the methods mentioned entail laboratory analysis;

    ii. No identification materials exist, and while exporters believe that they are not necessary, some importers believe that they are;

    iii. The main exporter considers annotation #12 to be adequate and is clear about what is meant by "essential oil", whereas some importers suggest that the annotation should be amended and that a clear definition of "essential oil" should be provided; and

    iv. The main exporter considers it necessary to include other species in the Appendices, whereas some importers seek clarification as to whether other species, such as *Aniba fragrans* and *A. parviflora*, produce oil that is used and whether it is possible to distinguish it from the essential oil of *A. rosaeodora*.

11. With regard to paragraph e) of Decision 15.90 (section v of the questionnaire), the range States indicate that they are working on specific standards and management plans to regulate the sustainable use of the species, which can be expected to contribute to the development of non-detriment findings.

Recommendations to the Plants Committee

12. The Plants Committee is invited to:

    a) Take note of the responses to Notification No. 2010/027 and the questionnaire circulated by the Scientific Authority of Mexico (see the Annex), and

    b) Form a working group, with participation by both exporters and importers of *Aniba rosaeodora*, in order to address paragraphs a) to d) of Decision 15.90 (questions i. to iv. of the questionnaire) and identify the steps to be taken in order to give effect to that Decision.

RESPONSES TO THE QUESTIONNAIRE CIRCULATED BY THE SCIENTIFIC AUTHORITY OF MEXICO PURSUANT TO DECISION 15.90

Mandate of Decision 15.90
a) Identify the best methods or potential methods for the identification of essential oil and, if required, wood. **Question i:** What do you think are the best practical methods (i.e. that can be used by border and customs officers) to identify the essential oil and, if required, wood of the species in trade? Explain why.
– **United States:** The United States currently relies primarily on the packaging, markings, or labelling of shipments to determine whether they contain this CITES-regulated species. We have not had enough experience implementing this listing to determine whether any particular methods of identification are superior to others. – **Brazil:** The best method for identifying essential oils is gas chromatography, which is the most widely used method for quality control in the perfume and cosmetic industry. Together with sensory analysis, this method is considered the standard method. The wood of *A. rosaeodora* is not in trade, so there is no need to invest in its identification. Moreover, the wood is easy to identify as it gives off an odour characteristic of the species. – **Germany:** Wood is not in trade because extraction for oils is much more profitable. ID needs to focus on the essential oil. Pure rosewood oil is identifiable through simple lab tests. The ID of *A. rosaeodora* in mixtures and complex aromas is increasingly difficult. In low and mid-range price perfumes, cheaper, synthetic linalool oil and Ho wood/leaf *Cinnamomum camphora* oils are substitutes for that obtained from *A. rosaeodora*. ID is only possible by chemical analysis. – **China:** For wood, an identification manual may be a useful tool for the Customs and other enforcement officers. For essential oil, no advice. – **Peru:** The oil has a distinctive odour, linalool being its main component. No simple and rapid method for identifying rosewood oil is known. Laboratory analysis by gas chromatography must be performed (*Chinatoya and Yeday*, 2010). – **United Kingdom:** Essential oils appear to be the most traded product therefore identification should focus on the essential oil. Any analysis will have to be carried out in a laboratory and not in the field by customs and border agents. In principle an "expert analyst" can determine the amount of Aniba oil in a fragrance mixture or a mix of other oils. But it is all a question of the amount of aniba oil and the nature of the mixture, consequently the confidence in the accuracy of the result will vary a lot.
b) Produce identification material and guidance. **Question ii:** Do you have identification materials for such trade? If so, please describe and, if possible, provide them.
– **United States:** The United States does not have any identification materials for such trade. – **Brazil:** Only the essential oil of rosewood is currently exported. Hence, there is no need to invest in its identification. – **Germany:** No, should be provided by proponent country. All major importing countries have published standard specifications for Brazilian rosewood oil and there is an international ISO standard which specifies botanical source and phytochemistry (FAO). They should be used as a basis.

– **China:** No.

– **Peru:** We have no identification materials. For the analysis of the oil, the standard for linalool and its isomers would be required. Studies of the anatomy of the wood would be needed in order to be able to identify any plant matter that is in trade.

– **United Kingdom**: No; one option is that it be provided by proponent country or probably best option go to the industry for assistance and to ask for samples/tests (major industry bodies to contact = http://www.ifraorg.org/ and http://www.rifm.org/). The IFRA will be present at the next Plants Committee so contact with them prior to the PC would be advantageous and they have been in contact with the Secretariat already. All major importing countries have published standard specifications for Brazilian Rosewood oil and there is also an international ISO standard. The standard is ISO 3761:2005(E) Oil of rosewood, Brazilian type [*Aniba rosaeodora* Ducke or *Aniba parviflora* (Meisn.) Mez.]. This is in effect not a taxonomic standard-guaranteeing identification of these species – rather it defines the characteristics required by industry. It is probably possible to develop a test to identify rosewood oil derived from *A. rosaeodora* for approximately £1000-2000.

c) Identify appropriate annotations to complement the proposed identification methods.

Question iii: Do you consider that the current annotation #12 is adequate to regulate trade in logs, sawn wood, veneer sheets, plywood and essential oil of *Aniba rosaeodora*? If not, please explain why and provide suggestions for modifying it.

– **United States:** Since the listing has only been in effect since June 23, 2010, we believe it is premature to state whether annotation #12 is adequate to regulate the commodities in trade. However, given the lack of clarity regarding intermediate products containing essential oil of *Aniba rosaeodora*, in May 2010, the U.S. Management Authority informed U.S. importers and re-exporters of *Aniba rosaeodora* of how the United States planned to interpret the annotation once the listing became effective. After subsequent communications with the CITES Secretariat, other Party countries, and industry, and taking into account the Secretariat's interpretation in CITES Notification to the Parties No. 2010/036 of the scope of coverage of annotation #12, the United States is reviewing its current interpretation of the annotation to determine if it should be revised. Because the United States is an importing country of *Aniba rosaeodora*, the U.S. Management and Scientific Authorities are currently working with other Federal agencies, range countries, the CITES Secretariat, and industry to explore this issue in preparation for the upcoming meeting of the Plants Committee. We look forward to working with the range countries and others to refine methodologies and guidance that will facilitate the implementation of this listing.

– **Brazil:** Logs, sawn wood, veneer sheets, plywood and pure essential oil, oil in solutions and derivatives (excluding solutions at concentrations of under 1 % and finished products packaged and ready for retail trade).

  This annotation is in accordance with what we wish to regulate, as it leaves no doubt that if rosewood oil is to be exported, a CITES permit is required and the species must be used appropriately.

– **Germany:** The text in brackets reading "(excluding finished products packaged and ready for retail trade)" should be deleted because it is already covered by the fact that this annotation is of the "designates"-type and the bracket text is hence superfluous. Additionally it should be discussed in the PC whether this annotation can be merged/streamlined with other existing annotations.

– **China:** Yes, annotation #12 plus relevant interpretations of Notification No. 2010/036 is adequate.

– **Peru:** Yes, we consider annotation #12 adequate.

– **United Kingdom:** If the text in brackets reading "(excluding finished products packaged and ready for retail trade)" is retained then, as with other annotations using this term it should be more clearly defined as confusion still exists amongst enforcement officers over this sentence. There is some debate as to removing the text in brackets as annotation #12 'designates' those products that are regulated and the bracket text could be seen as superfluous, but this may cause implementation problems whereby this conclusion is made by some but not all and just add to the confusion. The term 'essential oil' does need clarification as to whether it covers pure rosewood oil, rosewood oil when it is mixed with other oils and some differentiation between the pure/raw, bulk trade and the finished product trade. As with all

annotations merging/streamlining this annotation with other existing annotations would be useful.

d) Explore whether additional species need to be listed to support effective identification and regulation of wood and oil.

Question iv: Please indicate whether additional species need to be listed to support effective identification and regulation of *Aniba rosaeodora* wood and oil.

- **United States:** *Aniba fragans* and *Aniba parviflora* are similar in appearance and occur in the same habitat with *Aniba rosaeodora*. The oil content of *A. fragans* and *A. parviflora* is reported to be low and the composition of the oil is of poor quality. Therefore, it is uncertain whether essential oil of these two species is in trade.

- **Brazil:** It is not necessary to include any other species in the CITES Appendices in order to support effective identification of *A. rosaeodora*.

- **Germany:** The extent to which other Aniba species (none of which is currently listed in the CITES Appendices) are harvested for oil extraction, needs to be clarified. Possible species are among others *Aniba fragans* and *A. parviflora*. Adulteration can only be detected by chemical analysis. This needs to be clarified.

- **China:** No advice.

- **Peru:** Although studies are needed, other species of the Lauraceae family in general and of the genus *Aniba* in particular might be considered. Also, it should be noted that linalool is found in other herbaceous plants, such as lavender and bergamot.

- **United Kingdom:** Clarification with the country of origin and industry would be advantageous. *Aniba fragans* and *A. parviflora*.

e) Explore mechanisms for making non-detriment findings for this species.

Question v: Please indicate the harvest and management methods used to ensure the sustainable use of *Aniba rosaeodora* in accordance with Article IV of the Convention.

- **United States:** The United States is not a range country for *Aniba rosaeodora*.

- **Brazil**: Brazil already had rules for the management of *A. rosaeodora* before the species was listed in CITES Appendix II. Now that it has been listed, another species-specific standard is being developed in conjunction with the scientific committee on the species.

- **Germany:** No response.

- **China:** No advice.

- **Peru:** It has now been shown that the essential oil of rosewood is also found in the leaves. *Aniba rosaeodora* leaves could therefore be sustainably harvested in order to extract the oil. The harvesting method would be a plan for the pruning of trees aged 5 years or older, harvesting 30 %, 60 % or up to 100 % of the leaves and branches, in order to ensure the conservation and sustainability of the species. The method for extracting the oil would be steam distillation.

- **United Kingdom:** No data.

i. Identify the best methods or potential methods for the identification of essential oil and, if required, wood.

Canada: Canada believes that the methodology used in creation and application of the international standard (ISO 3761-2005) for chemical composition and application of rosewood oil (*A. rosaeodora*) offers a useful initial "best method" for the identification of essential oils and similar chemical derivatives in general. Noting however, that the existing standard for "rosewood oil" includes additional related species (i.e. *A. parviflora*), it appears necessary to develop standards of greater rigor that characterize and differentiate essential oils at the species level.

ii. Produce identification material and guidance. No response.

iii. Identify appropriate annotations to complement the proposed identification methods.

Canada: The inclusion of "essential oil" as a commodity type to which CITES regulations apply may require annotations that cite recognized standards for the chemical content of the essential oil or chemical derivative to which reference is made, in order to achieve the level of regulatory specificity required by the Convention.

iv. Explore whether additional species need to be listed to support effective identification and regulation of wood and oil

Canada: Listing closely related plant species known to be included in essential oils will inevitably increase regulatory burden on Parties and should be pursued only if species-level identification of essential oil components by standard proves impossible or operationally impractical.

v. Explore mechanisms for making NDFs for *A. rosaeodora*. No response.

United States: With regard to the information requested in paragraph d), regarding Decisions 15.90 and 15.96 concerning *A. rosaeodora* and *B. sarmientoi*, the United States currently relies primarily on the packaging, markings, or labelling of shipments to determine whether they contain these CITES-regulated species. We have not had enough experience implementing these listings to determine whether any particular methods of identification are superior to others. Because the United States is an importing country of both of these species, we are working with other federal agencies, range countries, the CITES Secretariat, and industry to explore this issue in preparation for the upcoming meeting of the Plants Committee. We look forward to working with the range countries and others to refine methodologies and guidance that will facilitate the implementation of these listings.