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

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Twenty-second meeting of the Plants Committee
Tbilisi (Georgia), 19-23 October 2015

Strategic matters

# GUIDANCE ON MAKING NON-DETRIMENT FINDINGS FOR TREE SPECIES - GUATEMALA AND SPAIN

1. This document has been submitted by César Beltetón, CONAP, Guatemala, and Margarita África Clemente Muñoz, University of Cordoba, Spain[*].

**Background**

2. The project, which is sponsored under the CITES-ITTO programme, started in September 2014, and is expected to conclude in December 2015. The proposal was supported by the CITES Management Authorities of Guatemala and Spain. Implementing agencies are the BALAM Association (Guatemala), and the University of Cordoba (Spain). The Collaborating Agency is the National Council for Protected Areas (CONAP), Guatemala.

3. The project targets almost 400 CITES-listed tree species.

**Main objective of the Project**

4. The main objective of the Project is to provide guidance for CITES Authorities on the processes, methodologies, and information required to make Non-detriment findings (NDFs) for timber species, and for non-timber tree species that are used for other products, in order to ensure that the requirements for the export of CITES-listed species can be implemented in an appropriate manner, and that international trade is compatible with the sustainable management and conservation of the species.

5. The following partial objectives were established to achieve the main objective:

   *Objective 1: Review and summary of various proposals and steps followed in the process of making Non-detriment findings for timber species and non-timber tree species.*

   *Objective 2: Simplified modelling of a guidance that includes the necessary elements and methodology for making NDFs.*

   *Objective 3: Validation of the guidance by experts, and by the Plants Committee.*

   *Objective 4: Dissemination of the manual/guidance to Parties.*

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[*] *The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.*

6. The project includes the organization of a Working Group, formed by *ad hoc* experts (who have been personally selected based on their experience). The experts selected come from Brazil, Burundi, Cameroon, Canada, Germany, Guatemala, Indonesia, Malaysia, Mexico, Peru, Spain, United States of America, and the CITES Secretariat (Officer for Plants). The task of the Working Group is to analyse and consider different options and special cases with the aim of submitting the ANNEX which accompanies this document to the Plants Committee for discussion, further proposals, and improvement.

7. The Plants Committee is invited to:

   a) Form a working group for the purpose of analysing, discussing, and submitting contributions and suggestions aimed at improving the Annex hereto.

   b) Request the Secretariat to publish the present document with the Annex—including the contributions from the Plants Committee—on the website on Non-detriment findings, and to send a Notification to the Parties requesting them to submit any suggestions and contributions to improve the document to cesarbelte@gmail.com and maclemente@uco.es by 30th November 2015, at the latest.

**Working Group on "Non-detriment findings (NDF) - Practical guidance for CITES-listed tree species"**

1. A Working Group Meeting on "Non-detriment findings (NDF) - Practical guidance for CITES-listed tree species" was held in Antigua (Guatemala) from 16 to 19 September 2015 under a Project ITTO-CITES.

2. The following 14 *ad hoc* experts attended the meeting: Mr Beltetón, César (Guatemala); Mr Betti, Jean (Cameroon); Ms Chua, Lillian (Malaysia); Ms Clemente, Margarita (Spain); Ms Correia de Mello, Claudia María (Brazil); Mr Didik, Purwito, (Indonesia); Mr Farr, Kenneth (Canada); Ms Ford, Patricia (United States of North America); Ms Hirakuri, Sofia (ITTO-Brazil); Ms Núñez, Fabiola (Peru); Mr Quero, José Luis (Spain); Mr Rushemeza, Jean (Burundi); Mr Schmitz-Kretschmer, Hajo (Germany) and Ms Sosa-Schmidt, Milena (CITES Secretariat). The expert selected from Mexico was unable to attend.

3. A comprehensive document was prepared and addressed to the experts beforehand for discussion during the meeting. The document included, among others, a revision and summary of the many different approaches followed in the process of making NDF by the Parties, and in proposals from international workshops, guidelines, etc.

4. The experts were invited to share their experiences and best practices relative to forest management, traceability, methodologies, risk analysis, and application of Non-detriment findings for CITES-listed tree species. Accordingly, the first day the experts provided the following presentations:

   NDF: Overview of best practices at global level (Ms Sosa-Schmidt)
   Methodologies for making Non-Detriment Findings for *Swietenia macrophylla* in Guatemala (Mr Beltetón)
   Methodologies for making Non-Detriment Findings for timber species in Peru (Ms Núñez)
   Methodologies for making Non-Detriment Findings for *Aniba rosaeodora* in Brazil (Ms Correia de Mello)
   Methodologies used for establishing Non-Detriment Findings for endangered tree species in Africa (Mr Betti)
   Methodology used for establishing Non-Detriment Findings for *Prunus africana* in Burundi (Mr Rushemeza)
   *Aquilaria malaccensis* (agarwood-producing species): Has the listing in Appendix II come too late? (Ms Chua)
   Considerations of making NDF of agarwood in Indonesia (Mr Didik)
   Methodology for making Non-Detriment Findings for trees in Canada (Mr Farr)
   Methodology for making Non-Detriment Findings for trees in the United States (Ms Ford)
   New applicable methods for Non-Detriment Findings (Mr Quero)
   NDF Guidelines for making NDFs for trees in the European Union (Mr Schmitz-Kretschmer)

5. Mr Beltetón and Ms Clemente presented the workshop objectives and methodology, which focused on discussion of the document prepared and addressed to the experts. This document included components of Resolution Conf. 16.7 on Non-detrimental findings (NDF) and presented different ways to respond to them.

6. The outcome of this exercise is a revision of the various components in the Resolution and identification of elements required to adequately respond to it. The resulting Annex is only an initial effort to identify elements, methodologies, problems and possible solutions.

7. There is a notable variety of methodologies applied by the Parties that should be considered and respected, given that Parties respond individually with the available instruments and capacities. Thus, rather than providing a rigid methodological framework, the final objective is to produce a Manual containing a flexible methodological framework from which the Parties might find the best option to suit them.

8. The contributions from the Plants Committee, Parties and stakeholders will allow the preparation of the final product which is expected to be a user friendly Manual in CD-ROM format.

9. The **Output from the Working Group Meeting on "Non-detriment findings (NDF) for trees** were the followings**:**

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **DETERMINATION** | | **Methodologies for specific taxa, and different situations at level: Local, Annual Operational Plans (AOPs); National, Sub-national, Regional, Global** | **General Considerations** |
|---|---|---|---|---|
| Scientific data-based assessment | IF NO<br>NDF not realizable | YES | Data quality<br>Publications in peer reviewed journals (indexed journals)<br>Inventories from public administrations (regional, national, federal etc.). Should specify sampling year / inventory.<br>Updated data (5yrs) | Scientific data needs to be the most current available.<br>Source need to be authoritative. |
| Correct identification of the species (authoritative, supported by standards, high level of confidence) | IF NO<br>NDF not realizable | YES | Sources of information<br>Data quality<br>Updated data | Correct identification: authoritative, supported by standards, providing a high level of confidence, e.g.<br>CITES standard nomenclature<br>Reference material available<br>Data quality<br>Updated data |
| Verification that it is specimens of this species that are to be exported; | IF NO<br>NDF not realizable | YES | Source of data, verifying entity, traceability methodology, data quality | This element refers to chain of custody concerns, verifying that the specimens identified are those shipped<br>Identification of area of distribution<br>Source of data, verifying entity, traceability methodology, data quality |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **DETERMINATION** | | **Methodologies for specific taxa, and different situations at level: Local, Annual Operational Plans (AOPs); National, Sub-national, Regional, Global** | **General Considerations** |
|---|---|---|---|---|
| Origin | No Legal (Illegal logging) and/or Land conversion NDF not realizable | YES | Source of data, verifying entity, traceability methodology, data quality | Land conversion is sovereign right of State. However, NDF still required. Harvest may be legal, but not sustainable.<br><br>Legality of origin can be determined *a priori,* but determination of sustainability should be made at the end of NDF process<br><br>Source of data, verifying entity, traceability methodology, data quality |
| | Plantations<br><br>No: then wild population | YES | Mark: Plantation type:<br>a. monospecific<br>b. mixed<br>c. agroforestry<br>d. gardens<br>e. other<br>Explain: monitoring and control systems, area, location, annual production, traceability. | Source of data, verifying entity, traceability methodology, data quality<br><br>Verifying legal acquisition |
| | Natural forest<br><br>Wild | | General management plans, Annual operational plans (AOPs)<br>Explain: monitoring and control systems, area, location, annual production, traceability. | Source of data, verifying entity, traceability methodology, data quality<br><br>Verifying legal acquisition |

| **ELEMENTS Resolution Conf. 16.7** | **DETERMINATION** | | **Methodologies for specific taxa, and different situations at level: Local, Annual Operational Plans (AOPs); National, Sub-national, Regional, Global** | **General Considerations** |
|---|---|---|---|---|
| Consider the volume of legal trade | NO<br><br>Report on the situation at local level | YES<br><br>Include the data | Sources of the most updated information<br>Data quality<br>Updated data | Consider the impact on the populations of the known levels of legal trade<br><br>National and international trade.<br>National market and international trade.<br>Information such as that available via the CITES trade database maintained by UNEP World Conservation Monitoring Centre (UNEP-WCMC), publications on trade, local knowledge on trade and investigations of sales at markets or through the Internet for example<br><br>http://trade.cites.org/en/cites_trade<br><br>A Guide to Using the CITES Trade Database |
| Consider the impact of illegal trade<br>known, inferred, projected, estimated | NO<br><br>Report on the situation at local level | YES<br><br>Include data for the different types | Sources of information<br>Entities registering the information<br>Updated data<br>Data quality | Consider the impact on the populations of the known and estimated levels of illegal trade to extent possible.<br>Consider confiscations |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **DETERMINATION** | | **Methodologies for specific taxa, and different situations at level: Local, Annual Operational Plans (AOPs); National, Sub-national, Regional, Global** | **General Considerations** |
|---|---|---|---|---|
| Vulnerability of the species (intrinsic and extrinsic factors that increase the risk of extinction of the species) | NO<br><br>Report on the situation at local level | YES<br><br>Report on factors that increase the risk of extinction | Sources of information,<br>Publications,<br>Entities registering the information,<br>Updated data,<br>Data quality | Intrinsic and Extrinsic factors: see Resolution Conf. 9.24 (Rev. CoP16) Annex 5<br>Sources of information<br>Publications,<br>Entities registering the information<br>Updated data<br>Data quality |
| The data requirement is proportional to the vulnerability of the species | NO<br><br>Explain | YES<br><br>Explain | Methods to be applied according to data requirements | Assessment of vulnerability required |
| Consider the volume of all types of trade in relation to the vulnerability of the species | Report data | | Methods<br>Yield rate, Conversion factors<br>PC17 Doc. 16.1.3, PC17 Inf. 3 | Assessment and conclusions based on the results. |
| Type of specimen | Specify type of specimen:<br>logs, sawn wood, veneer sheets, plywood, woodchips, powder, extracts, woodchips, unfinished wood articles used for the fabrication of bows for stringed musical instruments, finished products packaged and ready for retail trade, carvings.<br>Others: Specify. | | Measurement units<br><br>Provide a commodity code system | CITES Glossary<br>http://www.cites.org/eng/resources/terms/glossary.php<br><br>Guide to Using the CITES Trade Database, Annex 1.<br><br>A Guide to Using the CITES Trade Database<br><br>Use of harmonized system (HS) codes as a method for identification of specimen type |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **DETERMINATION** | | **Methodologies for specific taxa, and different situations at level: Local, Annual Operational Plans (AOPs); National, Sub-national, Regional, Global** | **General Considerations** |
|---|---|---|---|---|
| | Renewable specimens: bark, leaves, seeds, etc.) | | | |
| The species would be maintained throughout its range at a level consistent with its role in the ecosystems in which it occurs | NO<br>Report on the situation at local level | YES | Sources of information,<br>Publications,<br>Red lists<br>Forest mapping<br>CITES proposals to amend the Appendices<br>Entities registering the information,<br>Updated data,<br>Data quality | Assessment of the conservation status of the species at level: local, sub-national, national or regional.<br><br>In the context of species biology (role/function of the species in the ecosystem)<br><br>Vulnerability parameters should be included<br><br>Age-class distribution and percentage species presence (i.e. stand structure), genetic diversity<br><br>National strategies |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **Specifics data of the species** | **Methods and Assessments** |
|---|---|---|
| BIOLOGY AND LIFE CYCLE | Biological characteristics of the species (e.g.: reproduction, recruitment rate, survival rate, regeneration and reproduction strategies)<br>Habitat type (specify the type of habitat used by the species, and if relevant, the type of habitat specificity)<br>Role of species in the ecosystem | Evaluation of significant elements of biology and life cycle justifying the method used. |
| DISTRIBUTION AREA | Objective: Characterize the species' distribution at different spatial and jurisdictional scales so that production and conservation areas can be identified. Suggested scales and tools that may be available include: | |
| HISTORICAL (indicate period of reference) | National Distribution | • Vegetation and time series forest cover maps<br>• Ecosystem or eco-zone maps<br>• National forest inventories<br>• Herbarium collections and data (georeferenced)<br>• Existing and potential conservation areas<br>• Secondary data sources (i.e. historical references in land surveys, historical observations in national histories)<br>• GIS and remotely sensed data from a variety of sources if available |
| | Sub-National (e.g. Regions, States, Watersheds) Distribution | • National databases, including management units<br>• Sub-national forest inventories<br>• Sub-national mapping from various sources |
| | Local (Forest Management Unit) Distribution | • Statistical samples from inventories for forest management plans<br>• GIS representation of harvest areas<br>• Commercial censuses, ideally based on georeferenced data<br>• Local, specialist and industry knowledge |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **Specifics data of the species** | **Methods and Assessments** |
|---|---|---|
| CURRENT | National Distribution | • Vegetation and forest cover maps<br>• Ecosystem or eco-zoning maps<br>• National forest inventories<br>• Herbarium collection data (georeferenced)<br>• Existing and potential conservation areas<br>• Field studies recently carried on<br>• GIS and remotely sensed data from a variety of sources<br>Indicate:<br>– the most current reference period, preferably no more than 3-5 years in the past<br>– the information being used in the present by the relevant forest management agency. |
| | Sub-National (e.g. Regions, States, Watersheds) Distribution | • National databases, including management units<br>• Sub-national forest inventories<br>• Sub-national mapping from various sources<br>• Recent field studies<br>• GIS and remotely sensed data from a variety of sources<br>Indicate:<br>– the most current reference period, preferably no more than 3-5 years in the past<br>– the information being used in the present by the relevant forest management agency. |
| | Local (Forest Management Unit) Distribution | • Statistical samples from inventories in forest management plans<br>• GIS and remote sensing data from harvest areas<br>• Commercial surveys, , ideally based on georeferenced data<br>• Field studies recently carried out<br>• Local, specialist and industry knowledge<br>Indicate:<br>– the most current reference period, preferably no more than 3-5 years in the past |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | | **Specifics data of the species** | **Methods and Assessments** |
|---|---|---|---|
| | | | – the information currently utilized by the relevant forest management agency. |
| POPULATION PARAMETERS AS INDICATORS OF MANAGEMENT TO ENSURE SUSTAINABLE HARVEST | | Objective: Characterize species population status (standing stocks and dynamics) to provide standards for evaluating harvest impacts. Suggested parameters and tools that may be available, include: | |
| POPULATION STRUCTURE FOR: | a) Harvested area<br>b) National level<br>c) International level | Number of Individuals,<br>Age and/or Size Distribution,<br>Diametric classes<br>Density,<br>Basal area<br>Volume obtained/Quantity of harvested trees. | • Field inventories applying appropriate statistical methods<br>• Published studies<br>• Reliable proxy data (e.g. local knowledge, historical data)<br>• BSc, MSc & PhD theses. |
| POPULATION STATUS FOR: | a) Harvested area<br>b) National level<br>c) International level | Rates of mortality,<br>Rates of growth or replacement (e.g. of bark)<br>Reproduction<br>Regeneration<br>Recruitment<br>Intrinsic and Extrinsic factors | • Long-term studies using appropriate methods<br>• Modelling approaches (e.g. matrix)<br>• Published studies<br>• Reliable proxy data (e.g. local knowledge, historical data)<br>• Information on other factors affecting populations (e.g. microsite preferences)<br>• BSc, MSc & PhD theses. |
| POPULATION TRENDS FOR: | a) Harvested area<br>b) National level<br>c) International level | __ increasing<br>__ decreasing<br>__ stable<br>__ no information | Compiled results of the above information, methodology and assessment<br>Population dynamics data, demographics data |
| THREATS | | Specify the threats to which the species is subjected. | • Information on other factors negatively affecting populations (e.g., pests, disturbances)<br><br>• References relevant to the assessment of threats |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **Specifics data of the species** | **Methods and Assessments** |
|---|---|---|
| MANAGEMENT SYSTEMS TO ENSURE SUSTAINBLE HARVEST RATES | Objective: With sufficient knowledge of distribution, population parameters and management systems, determine whether the harvest is sustainable. Suggested aspects to review and issues to consider include: | |
| | Inventory (or description) of commercial and non-commercial trees | Using mapping / spatial referencing/ Possible Methodologies |
| | Harvest operations | • Identification of material to be harvested, understanding that differing harvest systems can be implemented<br>• Equipment/tools and methods to be used<br>• Measures for reducing damage during harvests (direct mechanical and environmental)<br>• Identification and protection of reserved areas/seed trees/future target trees |
| | Silvicultural practices | • Pre- and post-harvest<br>• Examples: release thinning, seed tree selection |
| | Restoration / alleviation measures/ reduction of harvest impacts | As appropriate:<br>• Seed tree retention<br>• Enrichment planting, with adequate seed selection (e.g. vigour, genetic diversity)<br>• Cutting/bark extraction cycle (rotation) or fallow period<br>• Post-harvest measures for reducing damage (direct and environmental) |
| | Evaluation of harvest methods and intensity | • Standards: harvest intensity (retention %), minimum diameter for cutting or bark extraction limit, management diameter (minimum diameter of regular fructification)<br>• Quantitative information as available, of population status, using appropriate statistical methods<br>• Expected (current) production and recovery rates (future production)<br>• Appropriate scaling methods |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **Specifics data of the species** | **Methods and Assessments** |
|---|---|---|
| | | |
| MONITORING AND VERIFYING HARVESTS | Objective: To determine whether adequate monitoring and verification systems are in place that ensure sustainable harvest and to minimize illegal activities and illegal trade. These may consist of or include: | |
| | Monitoring and verification systems | • Pre- and post-harvest review mechanisms to verify management practices<br>• Permanent plots to assess harvest impacts on populations<br>• Chain-of-custody information from harvest to export<br>• Traceability<br>• Transparent practices that improve control of trade in harvested products |
| | Optimization of timber / non timber use and processing | • Conversion / correction factors for translating raw material (e.g. standing volume, pre-processed weights) into processed product (e.g. sawn wood, extracts, etc.) |
| From all sources combined: | Include historical (period) and current (last year available) data<br>Indicate the data quality | Methods, Assessments |
| LEVELS OF HARVEST: Historical | | |
| LEVELS OF HARVEST: Current | | |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | | **Specifics data of the species** | **Methods and Assessments** |
|---|---|---|---|
| SETTING EXPORT QUOTAS | | Include past annual export quotas | • Consider the impact of past annual export quotas when establishing new export quotas for a calendar year. |
| PATTERNS OF HARVEST<br>Minimum diameter cutting limit, Extraction rate, Cutting /bark extraction cycle (rotation) | Historical<br>Current | Include historical (period) and current (last 3-5 years) data<br>Indicate the data quality | Methods, Assessments |
| MORTALITY | Historical<br>Current | Include historical (period) and current (last 3-5 years) data<br><br>Indicate the data quality | Methods, Assessments |
| MANAGEMENT MEASURES CURRENTLY IN PLACE | Adaptive management strategy<br>Compliance | Include the management currently in place and its compliance<br><br>Include data on corrections done in the adaptive management strategy | Methods, Assessments |
| MANAGEMENT MEASURES PROPOSED | Adaptive management strategy<br>Compliance | Identify measures to improve compliance | Methods, Assessments |
| POPULATION MONITORING | | Monitoring measure, sampling methods, frequency and any other relevant measures<br><br>Indicate the data quality | Methods, Assessments |

| **ELEMENTS**<br>**Resolution**<br>**Conf. 16.7** | **Specifics data of the species** | **Methods and Assessments** |
|---|---|---|
| CONSERVATION AND SAFEGUARDS | Objective: To determine whether safeguards are in place to ensure that natural sub-populations are retained in the post-harvested population and the role of the species in the ecosystem is conserved. | |
| | • Conserve sub- populations throughout the natural range to ensure phenotypic and genetic diversity<br>• Conserve the existing range of age/ size classes and distribution of the species while considering processes of natural succession and recruitment<br>• Avoid negative harvest impacts on other species and the ecosystem<br>• Establish reserve areas to protect unharvested sub-populations<br>• Establish seed banks and other mechanisms for conservation of germplasm<br>• Accounting for the effects of legal and illegal harvest on species conservation status<br>• Consider incentives and benefits from harvests (e.g. species/habitat conservation). | Methods, Assessments<br><br>In case of deficiencies: the precautionary principle with appropriate measures should be applied |
| CONSERVATION STATUS | Combine all obtained data and include the conservation status at different levels: local (AOPs), national, sub-national, regional, global | Methods, Assessments |
| PRECAUTIONARY PRINCIPLE | By virtue of the precautionary approach and in case of uncertainty, regarding either the status of a species or the impact of trade on the conservation of a species, act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species. | |

| **SOURCES OF INFORMATION. (Resolution Conf. 16.7)**<br>**Mark with an X (in first column) the information types you have used and in the second column indicate sources thereof** | | | **Personal assessment on** | |
|---|---|---|---|---|
| | | | **Updated Data (Year)** | **Data quality Low, Medium, High** |
| Relevant scientific literature concerning species biology, life history, distribution and population trends | | | | |
| Details of any ecological risk assessments conducted | | | | |
| Scientific surveys conducted at harvest locations and at sites protected from harvest and other impacts | | | | |
| Relevant knowledge and expertise of local and indigenous communities | | | | |
| Consultations with relevant local, regional and international experts | | | | |
| National and international trade information such as that available via the CITES trade database maintained by UNEP World Conservation Monitoring Centre (UNEP-WCMC), publications on trade, local knowledge on trade and investigations of sales at markets or through the Internet for example; and | | | | |
| Information included in the Annex to document AC26/PC20 Doc.8.4 and any subsequent updates available on the CITES website. https://www.cites.org/eng/prog/ndf/index.php | | | | |
| OTHERS | | | | |

**Final Recommendations:**

To incorporate in the final version of the Manual a Glossary of terms

The Scientific Authorities should consider incorporating or consulting with forestry experts when they prepare NDF for trees

To consider methods to increase the scientific information when the access to scientific literature is limited and to point out this issue to the Capacity Building Working Group for consideration