CONVENCIÓN SOBRE EL COMERCIO INTERNACIONAL DE ESPECIES AMENAZADAS DE FAUNA Y FLORA SILVESTRES

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Decimoctava reunión del Comité de Flora
Buenos Aires (Argentina), 17-21 de marzo de 2009

DICTÁMENES DE EXTRACCIÓN NO PERJUDICIAL: PLANTAS MEDICINALES
(PC18 Doc. 14.4)

Composición del grupo (tal como ha sido decidido por el Comité)

Presidencia: el observador de Alemania;

Partes observadoras: Argentina, Canadá, Estados Unidos, Malasia y Sudáfrica; y

OIGs y ONGs: Asociación Americana de Productos Herbarios, Assam Agar Traders & Agaroil Manufacturers' Association, Indena S.p.A. y TRAFFIC

Mandato

Teniendo en cuenta toda la información disponible y, en particular, los resultados del Grupo 2 del Taller celebrado en Cancún:

1. desarrollar principios, criterios e indicadores para la formulación de dictámenes sobre extracciones no perjudiciales del medio silvestre para plantas medicinales; y

2. mantener la colaboración con las Presidencias de los Grupos de plantas maderables y de agar y, en este contexto, evaluar la posibilidad de proponer la supresión de las Decisiones 14.135 y 14. 143 o su sustitución por una nueva decisión, o decisiones, con una estimación del presupuesto necesario para su aplicación.

Resultados del grupo de trabajo

El grupo de trabajo ha desempeñado su labor entre reuniones y durante la PC18. En el Anexo 1 a este documento figura el informe completo del grupo de trabajo (únicamente en inglés).

Recomendaciones

Se pide al Comité de Flora CITES que:

1. tome nota del documento de orientación preparado por el grupo de trabajo acerca de los dictámenes sobre extracción no perjudicial (DENP) y las plantas medicinales;

2. presente este informe de orientación sobre los DENP para las plantas medicinales como parte de la consideración de una resolución sobre los DENP; y

3. proponga a la CoP15 que suprima la Decisión 14.135, al estimarse que se ha cumplido.

Non-detriment findings

Medicinal plants

WORKING GROUP REPORT

Background

1. At its 14th meeting of the Conference of the Parties (CoP14, The Hague, 2007), the Parties adopted Decision 14.135 Timber species and medicinal plants: non-detriment findings, directed to the Plants Committee, as follows:

   The Plants Committee shall:

   a) develop principles, criteria and indicators for the making of non-detriment findings for wild specimens of high-priority taxa such as timber species, Prunus africana and other medicinal plants; and

   b) before the 15th meeting of the Conference of the Parties, support the organization of a workshop on non-detriment findings for tree species.

2. At the 17th meeting of the Plants Committee (PC17, Geneva, 2008), an intersessional working group (WG) was convened with the mandate to develop principles, criteria and indicators for the making of non-detriment findings (NDFs) for wild specimens of medicinal plants. The group was asked to liaise with the Chairs of the timber and agarwood NDF WGs in order to maintain consistency on key issues – in particular the definitions of principles, criteria and indicators.

3. Mexico organised an International Experts Workshop on NDF methodology which was held in Cancun from 17-22 November 2008. The WG agreed that the report produced by the Perennials group at the Cancun workshop titled 'Perennial Plants Working Group Annex: Guidance for Scientific Authorities in making a CITES Non-Detriment Finding' (document PC18 Doc 14.2) includes the general elements that are best-suited for adaptation to medicinal plant NDFs.

Principles

4. At PC17 the Chairs of the three NDF working groups (timber, medicinal plants and Agarwood) were tasked with liaising and reaching agreement on common usage of the terms 'principles, criteria and indicators'. For the term 'principle' the Chairs considered material provided in the International Standard for the Sustainable Wild Collection of Medicinal and Aromatic Plants document (ISSC-MAP), discussions at the Mahogany and Agarwood working group meetings, and the output from the Cancun NDF workshop, in particular the Trees Working Group. The following principles are presented as generic principles applicable to the NDF process in CITES regardless of the taxa being considered.

   - The non-detriment finding (NDF) for Appendix I and II species verifies that traded volumes within the range state are not detrimental to the survival of that species.
   - The NDF considers whether the species is maintained throughout its range at a level consistent with its role in the ecosystems in which it occurs.
   - The data requirements for an NDF are tailored to appropriate precision according to the resilience or vulnerability of the target species.
   - The implementation of an adaptive management scheme based on regular monitoring is an important consideration in the NDF evaluation process.
   - The NDF is based on resource assessment methodologies.
   - The NDF employs appropriate broad-scale assessment, such as total harvest assessments.

Criteria and Indicators

5. The terms 'criteria' and 'indicator' were not used by any Working Group in the Cancun workshop. In the Cancun Perennial Plants Working Group report, the term 'criteria', within the context of elaborating a NDF, correlates with the term 'factors' used in the risk assessment or 'factors' which constitute sustainability. It is

suggested that the 'elements of guidance' used in assessing the factors/criteria are the indicators that would be used to measure the adequacy or robustness of an NDF. The WG suggests that the semantics of 'criteria' and 'indicators' distracts from the most critical and essential part of the Decision which is "... for the formulation of non-detriment findings for medicinal plant species". The process outlined here provides guidance for the formulation of an NDF for medicinal plant species. If this process is followed, a Scientific Authority will have confidence that the resultant non-detriment finding is robust and reliable. The WG believes this meets the spirit of the Decision.

Sources and references used

6. The WG tried to build as much as possible upon existing guidance for making NDFs. Particularly valuable is the "Guidance for CITES Scientific Authorities" [1] (hereafter called IUCN checklist). Therefore, the factors within Tables 1 and 2 of the IUCN checklist were fully adopted into the tables of the present document.

7. The WG also agreed to use the ISSC-MAP document (PC 16 Inf. 9[2]) as a starting point for its work. ISSC-MAP especially provides additional guidance for evaluating the factors "Management Plan" and "Monitoring Methods" by specifying detailed criteria and indicators.

8. Additional elements were incorporated from the following sources: Cancun Workshop Case Studies [3], EU-SRG Guidance Paper [4], Susceptibility matrices published by Cunningham (2001) and Peters (1994)[5].

Process for making non detriment findings

9. The process for making non-detriment findings for medicinal plant species (and perhaps all CITES Appendix II plants) builds upon the IUCN Checklist and other references by incorporating the sources of information and methods that can be used to evaluate certain factors as well as identifying when a more rigorous approach is needed (i.e., when more information or more rigorous field methods are needed).

10. **Taxonomy**: According to Resolution Conf. 12.11 (Rev. CoP14), species that are listed in the Appendices of CITES should have a valid CITES-recognized name, as reported in CITES-approved checklists. The first step is therefore to assess whether the taxonomic circumscription, including authorities and synonyms, is stable or is dynamic. If the status of the taxon is dynamic, then the taxonomy is usually uncertain (e.g., the taxon may consist of several entities which have to be assessed separately). Sources of information include published floras, CITES checklist, identification guides, and taxonomic experts.

11. **Harvest limits**: Confirm if proposed trade is within existing harvest limits. Determine whether these harvest limits are current and valid for the particular population of the species, taking into consideration any new information regarding the species.

12. **Source of material**: Consider whether the source of the specimen proposed for trade is from the wild or artificially propagated. If the specimen was artificially propagated according to Resolution Conf. 10.13 (Rev. CoP14)[6] and Resolution Conf. 11.11[7], the NDF should address the criteria, as established under these Resolutions. This should complete the NDF process. If the specimen does not meet the criteria of these Resolutions, continue with the process below.

13. **Resilience of the species to collection**: This step involves evaluating the resilience of species to collection by considering the elements in Table 1, which outline factors for high, medium, and low resilience to collection. This table is not an exhaustive list but includes factors that may be most indicative of resilience or vulnerability, based on examples taken from Cunningham (2001) and Peters (1994). It is expected that judgement will be cautionary, for example, if a species has only a few factors of lower

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1 *Rosser, A. & M. Haywood. 2002. Guidance for CITES Scientific Authorities. Checklist to assist in making non-detriment findings for Appendix II exports. - xi+146 pp., IUCN, Gland and Cambridge*

2 *http://www.cites.org/common/com/PC/16/X-PC16-09-Inf.pdf*

3 *http://www.conabio.gob.mx/institucion/cooperacion_internacional/TallerNDF/Links-Documentos/WebPage%20-%20Format%20-%2023%20May%2008.doc*

4 *Duties of the CITES Scientific Authorities and Scientific Review Group under Regulations 338/97 and 865/2006. http://ec.europa.eu/environment/cites/pdf/srg/guidelines.pdf*

5 *CUNNINGHAM (2001): Applied ethnobotany. Earthscan; PETERS (1994): Sustainable harvest of non-timber forest plant resources in tropical moist forest. An ecological primer. - WWF Biodiversity Support Program, Washington.*

6 *Conf. 10.13 (Rev. CoP14) Implementation of the Convention for timber species for timber species (http://www.cites.org/eng/res/10/10-13R14.shtml)*

7 *Conf. 11.11 (Rev. CoP14). Regulation of Trade in Plants. (http://www.cites.org/eng/res/11/11-11R14.shtml)*

resilience and several deemed higher resilience, the species may still be considered as having a lower resilience to collection. Species are evaluated as having higher resilience i.e. less at risk from collection, if most of the resilience factors are in the higher category.

14. **Assessing the management of wild-collection activities**: Table 2 outlines factors affecting the management of the collection or harvest, along with references that provide examples of how each factor may be applied. For species that are less resilient to collection, greater rigour should be used, for example, multiple data sources, intensive field study, etc. In general, it is expected that Scientific Authorities will work with the information that is available and seek more extensive information for species with very low resilience. Sources of data will vary, depending on the species and collection situation. In some cases, reliable information may not be part of an academic study or published in a peer-reviewed journal, but could still be considered to be reliable by the SA. For example, population abundance may be known from only information gathered from local harvesters.

Recommendations

The CITES Plants Committee is asked:

- to take note of the guidance document prepared by the working group on NDFs and medicinal plants;
- to present this NDF guidance document for medicinal plants as part of the consideration of a NDF-specific Resolution;
- to propose to CoP15 to delete Decision 14.135, parts a) and b), on the basis of the Decision having been fulfilled.

Table 1 Assessment of the resilience of the species to collection (draft)

References: (1) IUCN Checklist; (2) Cancun Workshop Case Study Format; (5) Cunningham (2001) and Peters (1994)

Note: Where specific information is lacking with regard to these factors, the reviewer should consider gathering that information or explaining in the NDF why this lack of information does or does not affect your ability to a make non-detriment finding.

Factors of Resilience	Guidance	Higher Resilience	Lower Resilience	Ref
Biological characteristics				
• Life form vs. harvested plant part	• Basic life forms for plants: tree, shrub, perennial, annual, bulb, climber, epiphyte, etc.	Non-lethal harvest of latex, flowers, fruits and leaves Short-lived life forms	Lethal harvest of bark, stem tissue, roots, bulbs, whole plant Long-lived life forms	1, 5
• Distribution	• Currently known global range of the species	wide, cosmopolitan	restricted, endemic	2, 5
• Habitat	• Preference: Types of habitats occupied by the species • Specificity • Habitat threat	highly adaptable to various habitat types. habitat well conserved and stable	narrowly specific to one habitat type habitat threatened	1, 2, 5
• National abundance	• Local population sizes: Everywhere small <> Large to medium <> Often large • Spatial distribution: Scattered <> Clumped <> Homogeneous	Populations often large and spread homogenously across the landscape	All known populations everywhere small Scattered thinly across the landscape	1, 5
• National population trend	• Population increasing or decreasing?	increasing or stable	Decreasing	1
• Other threats	• Habitat loss/degradation; invasive alien species (directly affecting the species); harvesting; persecution (e.g. pest control); pollution (affecting habitat a/o species)	none or low	multiple, severe	1, 2
• Reproduction	• Regeneration or reproductive strategy: dioecious, sexual,	Asexual wind pollinated	Dioecious specialised pollinator	2, 5

Factors of Resilience	Guidance	Higher Resilience	Lower Resilience	Ref
	asexual • Pollination: biotic (specialised vector?), wind • Pollinator abundance • Flower/Fruit phenology: annual, supra-annual, unpredictable	annually fruiting pollinators common	monocarpic fruiting unpredictable pollinators rare; bats, hummingbirds	
• Regeneration	• Capacity of the species to reproduce • Growth rate • Sprouting capability • Regeneration Guild: Early Pioneer <> Late Secondary <> Primary	fast growing easily resprouting early pioneer	Slow growing not resprouting primary climax species	1, 5
• Dispersal	• Seed germination: viability, dormancy • Seed dispersal strategy • Disperser abundance • Dispersal efficiency	high viability wind and other abiotic vectors	long dormancy Biotic, with specialized vector	1, 5
Harvest characteristics				
• Harvest specificity	• Indiscriminate collection of other species vs. target species easy to identify	target species easy to identify	Target species hard to identify and therefore harvest accompanied by indiscriminate collection of other species	5
• Demographic segment of population	• Are mature and immature plants harvested?	collection of all age-classes	highly selective collection of one age-class	1, 2
• Multiple use	• Multiple, conflicting uses vs. single use or non-competing	single use or non-competing	Multiple, cumulative uses	5
• Yield per plant	• With high yield less individuals are affected by collection	High	Low	
• Scale of trade	• Quantitative information on numbers or quantity, if available; otherwise, a qualitative assessment; • Trade level: High – medium – low • Local, national, international	Low	High	1, 5
• Utilization trend	• Increasing fast <> Slowly increasing <> Stable or decreasing	Stable or decreasing	Increasing fast	5

Table 2. Assessment of factors affecting management of the collection (draft)

References: (1) IUCN Checklist; (2) Cancun Workshop Case Study Format; (3) EU-SRG Guidance; (4) ISSC-MAP; (5) Cunningham (2001) and Peters (1994)

Factors of sustainability	Guidance	Ref
Biological characteristics		
• Role of the species in its ecosystem	Consider the role of the species in the ecosystem and whether ecosystem processes are interrupted or changed by the collection of the species. Is the species a keystone or guild species, do other species depend on it for survival (e.g., food source)? • Scientific literature • Expert (including collector) knowledge • Field observations	2

Factors of sustainability	Guidance	Ref
Population status		
• National distribution	Range and distribution of the species in the country (whether or not the distribution of the species is continuous, or to what degree it is fragmented): • National distribution map, • Herbarium records, surveys or other vegetation inventories • Expert knowledge (all stakeholders) • Field studies • GIS vegetation coverages • Modelling	1, 5
• National conservation status	Conservation status of the species in the country determined through consultation of : • Species Risk Lists • Conservation Data Centres • Experts (all stakeholders) • Scientific literature • Herbarium records • Field surveys (locations, population size, etc.)	2
• National population trend	Population increasing or decreasing? To be measured over a time period independent of the harvest • Refer to conservation status • Reported harvests • Experts (all stakeholders) • Field surveys over short term • Field surveys over long term • Demographic studies (population viability analyses)	1
• Global conservation status	Refer to global assessment to compare national situation to global range • Published global assessments (e.g., IUCN Red List, Conservation Data Centres , e.g., Nature Serve) • Consult other range states • Undertake global assessment with other range states	2
• Global Distribution	Refer to global distribution for national context • Published global distribution map • Consult other range states	2, 5
• Global population size and trend	Refer to global population size and trend for national context • Published global assessment • Consult other range states	2
Harvest management		
• Regulated / unregulated	"Regulated" refers to a sanctioned (government approved or otherwise official) harvest that is under the full control of the manager. Legal status determined through: • Analysis of market reports on trade volumes • Experts (all stakeholders) • Trade volume records (e.g. WCMC CITES trade database; statistics from Customs; National or state permit databases) • Enforcement reports • Field and market surveys	1, 2
• Management history	What is the history of harvest? Is the harvest ongoing or new? • Literature • Experts (all stakeholders, including trade networks)	1, 2
• Illegal harvest or trade	How significant is the national problem of illegal or unmanaged harvest or trade? Assess the levels of both unmanaged and illegal harvest by: • Collecting market information • Collecting information from traders, collectors, wildlife managers • Comparing exports and imports with other Parties • Comparing CITES permit data to other export data sources (national trade statistics) • Analysing enforcement reports	1

Factors of sustainability	Guidance	Ref
	• Conducting field and market surveys	
• Management plan	Is there an adaptive management plan related to the collection of the species with the aim of sustainable use? • National and international legislation relating to the conservation of the species • Management plan in place • Plan specifies plant and habitat conservation strategies (may include protected areas) • Collection practices in place • Collection practices specify restoration measures (e.g., planting seed when whole plant is removed) • Requirement to keep records of collection • Collection records are reviewed and collection monitored • Management plan is reviewed at regular intervals specified in the plan • Limitations on collection (examples include collection seasons, minimum and maximum age / size class allowed for collection based on proportion of mature, reproducing individuals to be retained, maximum collection quantities, maximum allowed collection frequency, maximum allowed number of collectors) • Periods allowed for collection are determined using reliable and practical indicators (e.g., seasonality, precipitation cycles, flowering and fruiting times) and are based on information about the reproductive cycles of target species. • The age / size-classes are defined using reliable and practical characters (e.g., plant diameter / DBH, height, fruiting and flowering, local collectors' knowledge).	1, 2, 4
Control of harvest		
• Percent of harvest in state Protected Areas	What percentage of the legal national harvest occurs in state-controlled Protected Areas? • Harvester information or interviews • Enforcement information or interviews • Park manager information or interviews • Compare location information from permit with maps of protected areas • GIS layers of harvesting and land tenure	1
• Percent of harvest in areas of strong tenure	What percentage of the legal national harvest occurs in areas with strong local control over resource use? e.g.: a local community or a private landowner is responsible for managing and regulating the harvest • Harvester information or interviews • Enforcement information or interviews • Landowner information or interviews • Compare location information from permit with maps of protected areas • GIS layers of harvesting and land tenure	1
• Percent of harvest in open access areas	What percentage of the legal national harvest occurs in areas where there is no strong local control, giving de facto or actual open access? • Harvester information or interviews • Enforcement information or interviews • Compare location information from permit with maps of protected areas • GIS layers of harvesting and land tenure	1
• Proportion of range or population protected from harvest	What percentage of the species' natural range or population is legally excluded from harvest? • Compare distribution map with maps of areas excluding harvest • Information or interviews with wildlife managers	1
• Confidence in effectiveness of strict protection measures	Are there measures taken to enforce strict protection? • Information or interviews with protected areas managers	1
• Effectiveness of regulation of harvest effort	How effective are any restrictions on harvesting (such as age or size, season or equipment) for preventing overuse? • Information or interviews with resource managers	1
• Confidence in harvest management	Are there effective implementation of management plan(s) and harvest controls? • Information or interviews with resource managers	1
Monitoring of harvest		

Factors of sustainability	Guidance	Ref
• Monitoring of collection impact and management practices	Is management of wild collection supported by adequate identification, inventory, assessment, and monitoring of the target species and collection impacts? Does the rate (intensity and frequency) of collection enable the target species to regenerate over the long term? • Baseline information on population size, distribution, and structure (age classes) • Records on collected quantities (species/area/year) • Qualitative indices, e.g., discussions with collectors Quantitative indices, e.g., roots per pound collected as an indication of population size, the quantity of national exports • Identification of target species with voucher specimens from the collection site • Direct population estimates through field surveys, including surveys of populations before and after harvest (field surveys / data collection program is critical when collected quantities are above potential production)	4
• Confidence in monitoring	Are there effective implementation of monitoring and harvest impact controls? • Monitoring confirms that abundance, viability and quality of the target resource / part of plant is stable or increasing	1
• Other factors that may affect whether or not to allow trade	• What is the effect of the harvest when taken together with the major threat that has been identified for this species? • At the national level, how much conservation benefit to this species accrues from harvesting? • At the national level, how much habitat conservation benefit is derived from harvesting?	1, 3