

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



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OVERVIEW OF NDF MATERIALS AVAILABLE TO CITES PARTIES

1. This information document has been prepared by the Secretariat, and is submitted in relation to document [CoP18 Doc. 45](#) on *Non-detriment findings*.

Background and mandate:

2. [Resolution Conf. 16.7 \(Rev. CoP17\)](#) on *Non-detriment findings*, in paragraph 2, encourages Parties to share experiences and methods for making NDFs, and to maintain written records of their science-based rationale. Paragraph 3 of the Resolution directs the Secretariat to:
 - a) *to maintain a prominent section for non-detriment findings on the CITES website and to update it regularly with information from the Animals and Plants Committees, Parties and other sources;*
 - b) *to implement a user-friendly mechanism on the CITES website that would allow Parties to easily submit relevant information to be considered for inclusion in the website; and*
 - c) *to ensure that this information is accessible in the appropriate sections of the CITES Virtual College; and maintain a prominent and regularly updated section on NDFs on its website.*

These invitations to share and provide experiences with the objective to enable Parties to learn from best practice were reinforced in multiple specific provisions, including Decision 16.53 on *Non-detriment findings*, which instructs the Secretariat to:

- a) *invite Parties to submit their experiences and the results from workshops, projects or publications related to the making of non-detriment findings for inclusion in the CITES website; and to*
 - b) *ensure this information is available in other formats (e.g. CD-ROM) where appropriate.*
3. In the process of implementing Decision 16.53 on *Non-detriment findings*, the need for an inventory and review of NDF materials and guidances that are available to the Parties became apparent. This is reflected in the proposed draft decision 18.AA(a) in document [CoP18 Doc. 45](#):

The Secretariat shall: inventory and review the materials and guidance for the making of non-detriment findings (NDFs) that are available to the Parties, and identify any apparent gaps or needs (e.g. regarding taxonomic or geographical coverage, form or format, comprehensiveness, accessibility, languages, updates, practicality, etc.), including guidance for making NDFs for trade in specimens from different sources (W, R and F), and NDFs for taxa prioritized/called for in Decisions or Resolutions.

4. Thanks to a Junior Professional Officer position funded by Germany, the Secretariat has initiated an inventory and review of relevant NDF materials available to Parties on the CITES website.

Definition of NDFs and NDF guidances

5. Paragraph 1(a)i of [Resolution Conf. 16.7 \(Rev. CoP17\)](#) on *Non-detriment findings* defines NDFs as ‘*the result of a science-based assessment that verifies whether a proposed export is detrimental to the survival of that species or not*’. This definition entails four elements: (i) a description of the available resource base, (ii) an analysis of the risks to the survival of the species, (iii) a description of a proposed export, and (iv) an assessment whether a proposed export is detrimental to the survival of that species or not. These four aspects can be addressed in different levels of detail, with varying emphases and in different formats.
6. The review distinguishes NDFs *per se*, from NDF guidances and case studies. For the purpose of this review, “NDFs” are to be understood as documents produced with the aim to support a specific decision on export permits in a range State of a CITES-listed species, uploaded in the CITES website as an example or model for other Parties to draw upon, if they so wish. “NDF guidances” are defined as material that supports Parties in formulating NDFs in a more generic and general manner. Guidances can take the form of guiding questions, “cooking book recipes”, or fully elaborated tabular materials that are intended to be completed by Parties making an NDF. Finally, case studies are exclusively used to portray “model NDFs” from the “International Expert Workshop on CITES NDFs” (2008, Cancun, Mexico), henceforward referred to as the Cancun Workshop.

Methodology for search and inventory of NDFs and NDF guidances

7. The Secretariat reviewed sections of the CITES website in which NDF materials are located. These are: the [NDF database](#); documents submitted to [Plants](#) and [Animals Committees](#) available under the working documents and information document sections for their various meetings since 2013; and the review of significant trade process (for the latter, no direct link is currently available, but a process for designing an updated and dedicated RST database is underway). Materials are also found in additional sections such as those on [Queen Conch](#), and the [Virtual College](#).

Inventory of NDF materials available to Parties

8. Overall, 121 NDF materials were identified on the CITES website. 29 are NDF guidances (12 of them derived from the Cancun workshop), and 36 are NDFs. In total, 56 are “case studies” initially prepared for the 2008 Cancun workshop. Due to their large number, and since their qualities are reflected in the guidances that this workshop produced, these case studies were excluded from further review. A full list of inventoried materials and weblinks are appended in Annex 1.
9. In the process of developing the inventory three main insights became evident:
 - i) the number of materials available in the website is limited, and likely not representative of the NDFs actually and thus far developed by Parties;
 - ii) many pertinent materials, produced within the RST process, and in the CITES NDF database are of ancillary relevance to NDF making, since they focus on selected aspects rather than aspiring to address NDF requirements comprehensively;
 - iii) of the 121 available materials, 56 are case studies from the Cancun workshop (10 years back), and an additional 12 out of 29 available NDF guidances were derived from the same workshop. Thus, the total number of materials available *not* derived from that workshop is 53, divided into 36 NDFs and 17 guidances. This indicates the relevance that the Cancun workshop still has on NDF making to this day.

Review of taxonomic coverage

10. The availability of NDFs and NDF guidances by taxonomic group in the table below demonstrates that Parties can find ample material to support NDF making for some major taxa. In the case of tree species, there are 11 available NDFs, 8 guidances specifically dedicated to tree species, and some more general guidances (such as the IUCN guidance), that can be applied to trees, but are not specific to them. For fish, there are 8 NDFs and four dedicated guidances to choose from.

		NDF	Guidance	NDF	Guidance
Animals	Mammals	7	3	22	13
	Birds	1	1		

	Reptiles & Amphibians	4	3		
	Fish	8	4		
	Invertebrates	2	2		
Trees	Trees	11	8	11	8
Other plants	Succulents & Cycads	2	1	3	4
	Geophytes & Epiphytes	0	1		
	Perennials	1	2		
	Various / all	0	4	0	4
TOTAL				36	29

11. This data suggests that the lack of guidance for NDFs for (non-tree) plants is not representative or proportionate to the levels of trade recorded for these species in the CITES database. Among the animal taxa, it seems that amount of materials to assist Parties in making NDFs for birds and invertebrates are insufficient.

Review of language coverage

12. The table below presents available materials by major taxon and working language of the Convention. The largest number of materials is available in English, with roughly the same number of materials available in French and Spanish.

	English		French		Spanish	
	NDF	Guidance	NDF	Guidance	NDF	Guidance
Mammals	6	3	0	0	1	0
Birds	0	1	0	0	1	0
Reptiles & Amphibians	2	3	1	0	1	0
Fish	7	3	1	3	0	2
Invertebrates	1	2	0	0	1	1
Trees	4	8	4	5	4	4
Succulents & Cycads	2	1	0	1	0	1
Geophytes & Epiphytes	0	1	0	1	0	1
Perennials	1	2	0	2	0	2
Various / all	0	4	0	2	0	3
TOTAL (exceeds the number of available materials, since some are translated into several languages)	23	28	6	14	8	14
	51		20		22	

Review of taxa called for in resolutions or decisions

13. For this section of the review on all CITES-listed species, taxa and use classes (e.g. hunting trophies) were collected for which a specific Resolution exists, or a new specific mandate referred to in CoP18 documents. Subsequently, these were matched with available materials (see the table below). Columns three and four are marked green if dedicated guidances or example NDFs exist. Columns five and six are marked green if there exist materials of more complementary relevance that relate to overarching taxa, or similar use classes.

Taxon called for in CITES resolutions or CoP18 documents		Specific material available (at least family level, or directed to specific use class)		Generic material available (overarching taxon or similar use class)	
		Guidance	Example NDF	Guidance	Example NDF
Mammals	Big cats				
	Hunting trophies				
	Leopard				
	African lion				
	Jaguar				
	Cheetahs				
	African carnivores				
	Bears				
	Elephants				
	Rhinoceroses				
	Great apes				
	Tibetan antelope				
	Saiga antelope				
	Musk deer				
	Vicuna				
	Pangolins				
Cetaceans					
Black Sea bottlenose dolphin					
Birds	Songbirds				
	African grey parrots				
	Helmeted hornbill				
	Vultures				
Reptiles	Snakes				
	Tortoises and freshwater turtles				
	Hawksbill turtle				
Amphibians	Amphibians				
	Titicaca water frog				
Fish	Sharks and rays				
	Sturgeons, paddlefish				
	Eels				
	Humphead wrasse				
	Totoaba				
	Ornamental fish				
	Banggai Cardinal fish				
	Seahorses				
Invertebrates	Queen conch				
	Corals				
Trees	Timber species				
	Neotropical trees				
	Rosewood				
	Malagasy ebonies (Diospyros spp.) and palisanders and rosewoods (Dalbergia spp.)				
	Agarwood-producing taxa				
	African cherry				
Other plants	Orchids				
Other	Traditional medicines				

Review of comprehensiveness

14. The initial review seems to suggest that many of the criteria that are recommended by [Resolution Conf. 16.7 \(Rev. CoP17\)](#) are well largely implemented in many or most NDF. Examples are the criteria on vulnerability, threats, population trends, trade, and the precautionary principle. Others are well implemented for most,

though not all, of their aspects, such as conservation status, management and monitoring, inclusive knowledge and information transparency. This demonstrates that Parties wishing to draw on guidance and example materials from the CITES will find plenty of valuable materials on these aspects. It also suggests that many important criteria may be well established in the wider CITES NDF making practice.

Review of form, format, practicality and accessibility

15. All reviewed materials are available on the CITES website in written form. Most are well understandable, well formatted, and technically complete in the sense that no sections seem to have been lost during file transformation processes, or similar issues. However, the Secretariat observed a range of avenues to improve form, format, accessibility and clarity.
16. In terms of form and format, there is no requirement for NDFs to be lengthy or complex. Quite in contrast, [Resolution Conf. 16.7 \(Rev. CoP17\)](#) on *Non-detriment findings*, as well as many NDF guidances, explicitly recommend to adapt effort and data requirements to the risk that a proposed trade has for a species. Yet, almost all of the NDFs available to Parties count between 20 and 120 pages of research. Considerable resources, data, investment and capacity are required to follow the model of most NDFs currently available at the website. Pragmatic examples of NDFs in low resource, low data, low data, low capacity, and low risk situations are largely missing. The Secretariat is of the view that CITES would benefit from a realistic and varied suite of guidances and model NDFs that are appropriate and pragmatically adapted to a wider range of contexts and situations.
17. The NDF database itself, and its mechanism for automatic upload of materials would benefit from a review of all items contained in it, and the search function should be improved.

Recommended next steps

18. In line with the draft decisions contained in document [CoP18 Doc. 45](#), the Animals and Plants Committees could determine priorities for follow-up work to improve NDF capacity building materials available to Parties.
19. The Secretariat furthermore proposes a 3-step procedure:
 - i) issue a notification asking Parties to provide additional, existing NDF materials;
 - ii) convene technical workshops for each major gap that will be identified in a more detailed and in-depth review of available materials. Each technical workshop could bring together relevant experts from academia, those experienced in environmental impact assessments and risk analyses, as well as representatives of CITES Scientific Authorities. Small scale consultancies could be contracted to finish materials in follow-up work, as required; and,
 - iii) convene a second international NDF workshop with participation from Scientific Authorities, the CITES Secretariat, the Plants and Animals Committees, and relevant external experts, as required. This workshop would work in a sequence of plenary and working group phases. The objective could be to review all available materials, identify their strengths and weaknesses, and make recommendations which materials are useful for guiding and assisting CITES Parties with regard to particular aspects, and in particular contexts. The overarching objective could be a decision tree which materials can be consulted if Scientific Authorities search for assistance with particular problems, taking into account the particular situation that they are in. Ideally, the workshop would thus result in a set of materials that could constitute a non-binding, flexible and adaptable quality standard for NDF capacity building materials in CITES.

Inventory of available NDF materials

The following table lists all example NDFs, guidances (G), and case studies from the Cancun Workshop (CS) that were inventoried on the CITES website. NDFs and guidances were included in the subsequent review. All weblinks were consulted on August 7, 2019.

Type	Name	Party / Institution	Region	Year	Link
NDF	<i>Aniba rosaeodora</i>	Peru	CSAC	2015	weblink
NDF	<i>Aquilaria malaccensis</i>	Indonesia	Asia	2009	weblink
NDF	<i>Bulnesia sarmientoi</i>	Paraguay	CSAC	2013	weblink
NDF	<i>Brookesia minima</i> , <i>B. peyeriasi</i>	Madagascar	Africa	2018	weblink
NDF	<i>Carcharinus falciformis</i>	New Zealand	Oceania	2017	weblink
NDF	<i>Alopias vulpinus</i> , <i>Alopias superciliosus</i>	USA	North America	2017	weblink
NDF	<i>Cycas thouarsii</i>	Mozambique	Africa	2012	weblink
NDF	<i>Dalbergia cochinchinensis</i>	Vietnam	Asia	2018	weblink
NDF	<i>Dalbergia retusa</i>	Nicaragua	CSAC	2018	weblink
NDF	<i>Anguilla anguilla</i>	Morocco	Africa	2018	weblink
NDF	<i>Furcifer angeli</i>	CITES Secretariat	International	2013	weblink
NDF	<i>Sphyrna lewini</i> , <i>Sphyrna mokarran</i> , <i>Sphyrna zygaena</i>	USA	North America	2015	weblink
NDF	<i>Hoodia gordonii</i>	South Africa	Africa	2017	weblink
NDF	<i>Nardostachys grandiflora</i>	Nepal	Asia	2017	weblink
NDF	<i>Lamna nasus</i>	New Zealand	Oceania	2014	weblink
NDF	<i>Lamna nasus</i>	USA	North America	2017	weblink
NDF	<i>Panthera pardus</i>	Mozambique	Africa	2018	weblink
NDF	<i>Panthera pardus</i>	Namibia	Africa	2018	weblink
NDF	<i>Panthera pardus</i>	South Africa	Africa	2018	weblink
NDF	<i>Panthera pardus</i>	United Republic of Tanzania	Africa	2018	weblink
NDF	<i>Panthera pardus</i>	Zambia	Africa	2018	weblink
NDF	<i>Panthera pardus</i>	Zimbabwe	Africa	2018	weblink
NDF	<i>Mantella viridis</i>	CITES Secretariat	International	2013	weblink
NDF	<i>Pericopsis elata</i>	Democratic Republic of the Congo	Africa	2014, 2015, 2018	weblink 1 , weblink 2 , weblink 3
NDF	<i>Pericopsis elata</i>	Cameroon	Africa	2018	weblink
NDF	<i>Podocnemis unifilis</i>	Peru	CSAC	2015	weblink
NDF	<i>Prunus Africana</i>	Democratic Republic of the Congo	Africa	2013, 2017	weblink 1 , weblink 2
NDF	<i>Prunus Africana</i>	Cameroon	Africa	2014	weblink 1 , weblink 2
NDF	<i>Arantiga waglen</i> , <i>Arantiga mitrata</i> , <i>Aratinga weddellii</i> , <i>Aratinga leucophthalma</i> , <i>Brotogeris cyanopectera</i> , <i>Brotogeris sanctithomae</i> , <i>Brotogeris versicolurus</i>	Peru	CSAC	2014	weblink
NDF	<i>Pterocarpus santalinus</i>	India	Asia	2012	weblink
NDF	<i>Sphyrna zygaena</i>	New Zealand	Oceania	2014	weblink
NDF	<i>Mobula japanica</i>	New Zealand	Oceania	2017	weblink
NDF	<i>Strombus gigas</i>	Honduras	CSAC	2017	weblink
NDF	<i>Strombus gigas</i>	Netherlands	Europe	2014	weblink
NDF	<i>Swietenia Macrophylla</i>	Peru	CSAC	2015	weblink
NDF	<i>Vicugna vicugna</i>	Peru	CSAC	2014	weblink
G	9 Step guidance for timber	Germany	Europe	2018	weblink
G	9-step guidance for perennial plants	Germany	Europe	2016	weblink
G	Agarwood	CITES Secretariat	International	2013	weblink
G	Agarwood-Producing Taxa	Various	International	2008	weblink
G	Aquatic invertebrates	Various	International	2008	weblink
G	Aquatic species	Japan	Asia	2015	weblink
G	Birds	Various	International	2008	weblink
G	IUCN guidance	IUCN	International	2002	weblink
G	CITES Species	Spain	Europe	2017	weblink
G	<i>Anguilla anguilla</i>	Tunisia	Africa	2018	weblink
G	Fish	Various	International	2008	weblink
G	Geophytes and Epiphytes	Various	International	2008	weblink
G	<i>Gonystylus</i> spp.	Indonesia	Asia	2010	weblink
G	Hunting trophies	EU	Europe	2017	weblink
G	Mammals	Various	International	2008	weblink
G	Medicinal Plants	Various	International	2008	weblink
G	<i>Ovis ammon</i> , Hunting trophies	CITES Secretariat	International	2013	weblink
G	Perennial Plants	Various	International	2008	weblink

G	<i>Pericopsis elata</i>	Belgium	Europe	2014	weblink
G	Reptiles and Amphibians	Various	International	2008	weblink
G	Seahorses	Canada	International	2013	weblink
G	Sharks	Germany	Europe	2014	weblink
G	Snakes	IUCN	International	2017	weblink
G	<i>Strombus gigas</i>	Honduras	CSAC	2017	weblink
G	Succulents and Cycads	Various	International	2008	weblink
G	Timber Species and Prunus Africana	Various	International	2008	weblink
G	Tree species	Guatemala, Spain	International	2015	weblink
G	Trees	Various	International	2008	weblink
G	Turtles and tortoises	IUCN	International	2015	weblink
CS	<i>Aceperenser</i> spp., <i>Husa</i> spp.	Romania	Europe	2008	weblink
CS	<i>Aloe</i> spp.	Kenya	Africa	2008	weblink
CS	<i>Amazona auropalliata</i>	Nicaragua	CSAC	2008	weblink
CS	<i>Anguilla anguilla</i>	Sweden	Europe	2008	weblink
CS	<i>Ansellia</i>	Kenya	Africa	2008	weblink
CS	<i>Anthipatharia</i>	USA	North America	2008	weblink
CS	<i>Aquilaria malaccensis</i>	Malaysia	Asia	2008	weblink
CS	<i>Cacatua galerita</i>	New Zealand	Oceania	2008	weblink
CS	<i>Cacatua sulphurea</i>	Indonesia	Asia	2008	weblink
CS	<i>Caesalpinia echinata</i>	Brazil	CSAC	2008	weblink
CS	<i>Carnegieia gigantea</i>	Mexico	North America	2008	weblink
CS	<i>Ceratozamia mirandae</i>	Mexico	North America	2008	weblink
CS	<i>Cheilinus undulates</i>	Indonesia	Asia	2008	weblink
CS	<i>Cibotium barometz</i>	China	Asia	2008	weblink
CS	Coral	Australia	Oceania	2008	weblink
CS	<i>Crocodylus niloticus</i>	Kenya	Africa	2008	weblink
CS	<i>Cuora amboinensis</i>	Malaysia	Asia	2008	weblink
CS	<i>Cuora amboinensis</i>	Indonesia	Asia	2008	weblink
CS	<i>Cycas circinalis</i>	Mexico	North America	2008	weblink
CS	<i>Dioon edule</i>	Mexico	North America	2008	weblink
CS	<i>Encephalartos</i> spp.	South Africa	Africa	2008	weblink
CS	<i>Falco cherrug</i>	United Arab Emirates	Asia	2008	weblink
CS	<i>Galanthus elwelsii</i>	Turkey	Asia	2008	weblink
CS	<i>Galanthus woronowii</i>	Georgia	Europe	2008	weblink
CS	<i>Gonystylus bancanus</i>	Malaysia	Asia	2008	weblink
CS	<i>Guaiacum sanctum</i>	Mexico	North America	2008	weblink
CS	<i>Hippocampus</i> spp.	Canada	North America	2008	weblink
CS	<i>Hoodia gordonii</i>	South Africa	Africa	2008	weblink
CS	<i>Macaca fascicularis</i>	China	Asia	2008	weblink
CS	<i>Macaca mulata</i>	China	Asia	2008	weblink
CS	<i>Malacochersus tornieri</i>	Kenya	Africa	2008	weblink
CS	<i>Monodon monoceros</i>	Greenland	Europe	2008	weblink
CS	<i>Nardostachys grandiflora</i>	Denmark	Europe	2008	weblink
CS	Orchids	Ecuador	CSAC	2008	weblink
CS	<i>Panax quinquefolius</i>	USA, Canada	North America	2008	weblink
CS	<i>Panthera leo</i>	Tanzania	Africa	2008	weblink
CS	<i>Panthera pardus</i>	South Africa	Africa	2008	weblink
CS	Parrots	Mexico	North America	2008	weblink
CS	<i>Pelargonium sidoides</i>	Lesotho	Africa	2008	weblink
CS	<i>Pericopsis elata</i>	Cameroon	Africa	2008	weblink
CS	<i>Platycercus eximius</i>	New Zealand	Oceania	2008	weblink
CS	<i>Prunus africana</i>	Equatorial Guinea	Africa	2008	weblink
CS	<i>Psittacus erithacus</i>	Guinea	Africa	2008	weblink
CS	<i>Ptyas mucosus</i>	Indonesia	Asia	2008	weblink
CS	Rare Orchids	UK	Europe	2008	weblink
CS	Stony Corals	Indonesia	Asia	2008	weblink
CS	<i>Strombus gigas</i>	Colombia	CSAC	2008	weblink
CS	<i>Swietenia macrophylla</i>	IUCN	CSAC	2008	weblink
CS	<i>Taxus</i> spp.	Canada	North America	2008	weblink
CS	<i>Tillandsia xerographica</i>	Guatemala	CSAC	2008	weblink
CS	<i>Tridacnidae</i>	Palau	Oceania	2008	weblink
CS	<i>Tursiops aduncus</i>	Solomon Islands	Oceania	2008	weblink
CS	<i>Uromastyx</i> spp.	Israel	Europe	2008	weblink
CS	<i>Ursus arctus</i>	Canada	North America	2008	weblink
CS	<i>Vanda coerulea</i>	Thailand	Asia	2008	weblink
CS	<i>Vicugna vicugna</i>	Peru	CSAC	2008	weblink