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

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Eighteenth meeting of the Plants Committee
Buenos Aires (Argentina), 17-21 March 2009

Non-detriment findings

INTERNATIONAL EXPERT WORKSHOP ON NON-DETRIMENT FINDINGS

1. This document has been submitted by Mexico, as Chair of the Steering Committee of the workshop (see Annex 1 for Steering Committee composition)[*].

A. Introduction

2. In accordance with the Text of the Convention in its Articles III and IV (Regulation of trade in specimens of species included in Appendix I and II, respectively) and Resolution Conf. 10.3 (Designation and role of the Scientific Authorities), the 14th Conference of the Parties (The Hague, Netherlands, 3-15 June 2007) adopted Decisions 14.49 to 14.51 on the convening of an International Expert Workshop on CITES Non-detriment Findings. Following these Decisions, the Workshop was held in Cancun, Quintana Roo, Mexico, from 17 to 22 November 2008.

3. The objectives of the workshop were to analyse and summarize different approaches and paths followed by Scientific Authorities during the NDF decision making process, to provide Parties with elements that enhance their understanding of what NDFs are and how they can be formulated, and to present the results for consideration by the Animals and Plants Committees in 2009, where CITES Authorities will assess their applicability, possible endorsement and submission for consideration by the Conference of the Parties.

4. The workshop was attended by 103 participants coming from 33 countries of the six CITES regions (see Annex 2). A total of 60 case studies were prepared in advance (available at http://www.conabio.gob.mx/institucion/cooperacion_internacional/TallerNDF/taller_ndf.html) and discussed within the nine working groups, which elaborated recommendations as taxon-based guidelines for different groups of plants and animals.

B. Workshop dynamics

5. The workshop opened with plenary presentations on:

   – CITES and Non-detriment Findings: CITES and NDF basic concepts (David Morgan, CITES Secretariat)
   – General principles and methodologies for making NDFs: the CITES-IUCN Checklist as an example (Alison Rosser, Durrell Institute for Conservation and Ecology)
   – General aspects of Harvesting Theory (Nigel Leader-Williams, Durrell Institute for Conservation and Ecology)

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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. Uwe Schippmann (Germany) gave a brief presentation on a comparison between non-detriment criteria in the IUCN checklist, EU guidelines and the International Standard for Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP). This was taken up by the perennials working group, which developed and refined it and the final version is included in their report.

7. The bulk of the subsequent discussions took place in working groups organised on taxonomic and life form lines. Each working group considered a number of taxon-specific case studies and then moved on to develop general guidelines. Case studies and co-chairs of each working group are shown on the following table:

Working Group		Co-chairs	Case Studies	
1	**Trees**	Rafael María Navarro (Spain) James Grogan (USA) Alejandra García-Naranjo (rapporteur)	**1**	Ramin *(Gonystylus bancanus)* in Malaysia.
			2	Non-detriment Findings report on *Pericopsis elata* (fabaceae) in Cameroon.
			3	Agarwood *(Aquilaria malaccensis)* in Malaysia.
			4	Big-leaf mahogany (*Swietenia macrophylla*) in Peru, Bolivia and Brazil.
			5	Brasilwood (*Caesalpinia echinata*) in Brazil.
			6	Genus-level approach to *Taxus* species.
			7	Non-detriment Findings report on *Guaiacum sanctum* in Mexico.
			8	Setting export quotas of *Prunus africana*: guidelines for a NDF plan.
			9	Non-detriment Findings report on *Prunus africana (Rosaceae) in Cameroon*.
2	**Perennials**	Greg Leach (Australia) Adrianne Sinclair (Canada, in coord. with Andrea White) Paloma Carton de Grammont (rapporteur)	**1**	Non-detriment finding for *Cibotium barometz* in China.
			2	Development of a Non-Detriment Finding process for *Pelargonium sidoides* in Lesotho.
			3	Towards valid Non-detrimental Findings for *Nardostachys grandiflora*.
			4	Elements of ISSC-MAP Resource Assessment Guidance Relevant to CITES NDF and Annex.
			5	*Panax quinquefolius* (American ginseng) in Canada: A Case Study.
			6	The Ying and Yang of Ginseng – Making a Non-detriment finding for *Panax quinquefolius*: a case study with two perspectives (United States of America).
			7	Case study: *Tillandsia xerographica*.
3	**Succulents and Cycads**	John Donaldson (South Africa) Patricia Dávila (Mexico) Nicolás Palleiro (rapporteur)	**1**	Sustainable Use of East African *Aloes*: the case of commercial aloes in Kenya.
			2	Cycadales spp. in Chiapas, Mexico (*Ceratozamia mirandae*).
			3	Cycadales in Mexico (*Dioon edule*).
			4	South African *Encephalartos* species (Appendix 1).
			5	*Cycas circinalis* L. in India.
			6	*Hoodia gordonii* in Southern Africa.
			7	Sahuaro (*Carnegiea gigantea*) in Mexico.

Working Group		Co-chairs	Case Studies	
4	**Geophytes and Epiphytes**	Noel McGough (United Kingdom) Beatrice Khayota (Kenya) Yolanda Barrios (rapporteur)	**1**	Can future population trends be predicted from current population behaviour? Evidence from a long-term study on a rare orchid species.
			2	Assessing harvest levels for *Galanthus woronowii* Losinsk. in Georgia and the challenge of producing a Non-detriment Finding.
			3	Criteria used to set export quotas for Appendix I and II orchid species from Ecuador.
			4	Non-detriment finding for *Vanda coerulea*.
			5	Non-detriment Findings for the genus *Anselli*alindl*.* in Kenya.
			6	The application of population modelling techniques to the development of Non-detriment Findings for Galanthus elwesii in Turkey*.*
			7	The development of Non-detriment Findings for *Galanthus elwesii* Hook. F., in Turkey.
5	**Mammals**	Rodrigo Medellín (Mexico) Alisson Rosser (DICE, UK) Holly Dublin* (IUCN-SSC, South Africa) Gabriela López (rapporteur)	**1**	Non-detriment report under CITES regarding export of African Lions (*Panthera leo*) from the United Republic of Tanzania.
			2	Non-detriment Finding for *Tursiops aduncus* in the Solomon Islands.
			3	The NDF Process for *Ursus arctos horribilis* (Grizzly Bear) in Canada.
			4	Leopard (*Panthera pardus*) Case Study.
			5	CITES Non-detriment Finding Case Study for the Exporting Crab-eating Macaques (*Macaca fascicularis*) from China.
			6	CITES Non-detrimental Finding for Exporting Rhesus Monkey (*Macaca mulatta*) from China.
			7	Greenland, Narwhal (*Monodon monoceros)*.
			8	Vicugna (*Vicugna vicugna*) in Peru.
6	**Birds**	Rod Hay (New Zealand) Philip McGowan (United Kingdom) Adrian Reuter (rapporteur)	**1**	African Grey Parrot (*Psittacus erithacus*) case study.
			2	Proposal for making an NDF based on a psittacidae recovery program for Nicaragua: the *Amazona auropaliata* case.
			3	Eastern Rosella *Platycercus eximius*, exports from New Zeland, case study; and Sulphur-crested cockatoo *Cacatua galerita*, exports from New Zeland, case study.
			4	Case study: *Cacatua sulphurea*.
			5	Case studies – Saker falcon (*Falco cherrug*).
			6	Conservation and sustainable use of parrots in Mexico
7	**Reptiles and Amphibians**	Peter Paul van Dijk (IUCN/SSC Tortoise and Freshwater Turtle Specialist Group) Thomasina Oldfield (TRAFFIC International) Charlie Manolis* (Wildlife Management International) Paola Mosig and Yolanda Barrios (rapporteurs)	**1**	Non-Detriment Finding Studies on Nile crocodile (*Crocodylus niloticus*): The Status of and trade in the Nile Crocodile in Kenya.
			2	The Southeast Asian Box Turtle *Cuora amboinensis* (Daudin, 1802) in Indonesia.
			3	Conservation, management and control of trade in pancake tortoise *Malcochersus tornieri* (Siebenrock, 1903) in Kenya: the Non-detriment Finding studies case study.
			4	Case study on *Ptyas mucosus* – a proposed NDF method for Indonesia (Java).
			5	*Uromastyx* lizards in Israel.
			6	*Cuora amboinensis* (Daudin, 1802) in Malaysia

Working Group		Co-chairs	Case Studies	
8	**Fishes**	Glenn Sant (TRAFFIC International) Marcelo Vasconcelos (Brazil) Nancy Daves (rapporteur)	**1**	Assessing CITES Non-detriment Findings Procedures for *Arapaima* in Brazil.
			2	Non Detriment Findings for the European Eel – The Swedish case.
			3	Napoleon fish, *Cheilinus undulatus,* Indonesia.
			4	Case study: *Hippocampus* spp. Project seahorse.
			5	Sturgeons of the NW Black Sea and Lower Danube River countries.
9	**Aquatic Invertebrates**	Vincent Fleming (United Kingdom) Glynnis Roberts (USA) Guillermo Muñoz (rapporteur)	**1**	Case Study for Black Coral from Hawaii.
			2	Palau case study – *Tridacnidae*.
			3	Non-detriment Findings for the Queen Conch (*Strombus gigas*) in Colombia.
			4	Non-detriment Finding for CITES-listed corals in the Queensland coral fishery.
			5	Evaluation of Non-detriment Finding for trade in stony corals from Indonesia.

* Not present at the meeting.

C. Workshop results

8. In general, the working groups generalized from the case studies to a broader level of methodology in making NDFs. However, it also emerged that each of the nine taxonomic groups has individual characteristics that might be lost sight of were the workshop to move too quickly to establish a general "one size fits all" template. Reasons for this included the following.

   – With some of the plant groups, it was possible to focus the harvest on seeds and this would be regarded as carrying a much lower level of risk. Some animal groups (e.g. oviparous reptiles) are somewhat similar in that harvesting eggs has a relatively small impact on the wild population (where natural mortality is high), but the same is less true for some birds or viviparous mammals.
   – The concepts and definitions of "farmed" specimens varied across the range of taxa. Some aquaculture or mariculture operations are more in the nature of "enhanced wild" production, as it is understood by botanists. On the other hand, some breeding and propagation operations (e.g. some bird breeding facilities, seahorse breeding facilities and plant nurseries) are effectively closed cycle operations with no direct impact on wild populations other than the original removal of the founder stock.
   – In the case of fisheries and timber specimens, there are long-standing resource management practices in place and these can be adapted to meet the requirements of a CITES Non-Detriment Finding. The same is not true of most other species categories.

9. It was felt that the material produced by the working groups would be of benefit to Scientific Authority (SA) staff making Non-detriment Findings in the relevant taxonomic group. On the other hand, because of the different and innovative ways in which the groups presented their findings, the findings on a given taxonomic group might illuminate the efforts of a Scientific Authority in making a Non-detriment Finding for an unrelated taxon – including some not considered by any of the working groups, such as terrestrial invertebrates.

10. Nevertheless, most of the issues relevant to making Non-detriment Findings were seen to apply to all taxa to some degree, even if the experts in the relevant groups sometimes use different terminologies. The need for a precautionary approach was highlighted, in order that the available information is used with the highest possible degree of confidence. That said, the degree of rigour required varies from case to case and there were ways that Scientific Authorities could determine which cases merited a detailed approach, with others being amenable to a more rapid assessment. Most of the working groups took up the concept set out in the Secretariat's paper that Non-detriment Findings are, in effect, a type of risk analysis, where more vulnerable species with higher volumes of harvest require the most detailed Non-detriment Findings. In this regard, the quantity and quality of the available information was crucial; where only skeletal information is available an NDF carries the least confidence and so there is the greatest need for a precautionary approach. Some groups presented this concept in the form of a decision tree.

11. It was also agreed that Non-detriment Findings for trade must take total impact into account, including domestic harvest, illegal trade and all sources of mortality to the population of the species. In many instances trade is not the primary driver, with the bulk of the harvest being consumed directly. Some specimens in trade are the result of by-catch but a Non-detriment Finding is still required.

12. For shorthand purposes, a finding of non-detriment is referred to as a positive Non-detriment Finding, while a finding of conservation detriment is referred to as negative. It should also be noted that this paper looks primarily at the making of Non-detriment Findings for exports and that the requirement to consider the detrimental effect of imports of Appendix I specimens, under Article III.3.a, was not considered.

Geographical scope of the Non-detriment Finding

13. The Convention requires that export permits should not be issued if the proposed exports are detrimental to the survival of the species. However, it is important at the outset to identify the population that is the subject of the NDF in the geographic/jurisdictional sense. It was recognized that, although as a matter of practice Non-detriment Findings usually apply to the population of the Party making the Non-detriment Finding, it was agreed that Scientific Authorities should at least take into account the impact of harvest and their Non-detriment Finding on other portions of the population.

14. One recommendation to address these issues was for range States to collaborate in making Non-detriment Findings.

Level of confidence in the Non-detriment Finding

15. Some presentations brought out the fact that, while some of the existing guidelines and methodologies require considerable information, expertise and time, nevertheless Non-detriment Findings can be made with much less information, albeit with a lower level of confidence. For most CITES taxa in trade, the following information is available:

    – Broad geographic range of the species;
    – Rough understanding of the reproductive strategy and fecundity of the species;
    – Basic life history information;
    – A basic knowledge of the type of harvest, including the life history stage that is most in demand and whether or not the trade is high volume or otherwise;
    – Reported CITES trade data.

16. Even with such information a tentative NDF can still be made. However, there is more need for a precautionary approach and, consequently, a much greater possibility for a negative finding. The applicants have the option of obtaining more information to substantiate their case but there is always the possibility that such information may only strengthen the initial conclusion. On the other hand, for more resilient species and lower risk harvest, harvest within cautious limits is possible, provided there is at least minimal monitoring and feedback - i.e. adaptive management.

17. A much more confident Non-detriment Finding (either positive or negative) can be made when there is detailed distribution information, an indication of abundance within the range, measured or inferred population statistics, more detailed knowledge of the species' life history and ecology, etc.

Risk analysis

18. Most of the working groups took up the concept set out in the Secretariat's paper that Non-detriment Findings are, in effect, a type of risk analysis. Some of them, such as the perennial working group, separated the risks associated with the intrinsic resilience (or otherwise) of the species from those associated with the nature of the harvest. Others, such as the reptile and amphibians group, considered these factors as being intertwined. The groups represented the risk analysis in various ways. For instance, the reptiles and amphibians group proposed a scoring system, while the cycads and succulents group used a graphic representation.

19. Biological aspects that determined the resilience of the species included:

    – Population distribution, range and abundance;
    – Population trend against historical baselines
    – Population age structure;
    – Life history and reproductive strategy;
    – Habitat requirements and adaptability (specialist versus generalist);

- Ecosystem effects of removal of the species (or of enhanced wild production);
- Ability to naturally repopulate areas from which it has been depleted; and
- Whether the species is migratory or wide ranging.

20. Harvest characteristics that had a bearing on the level of risk included:

    - The quantity of material harvested;
    - The life history stage harvested;
    - The extent and nature of the area subject to harvest (usually determined by ease of access);
    - The existence or otherwise of a regulatory regime, including harvest limits, and no-take areas;
    - Whether or not the harvest destroyed the entire specimen (or removed it from the wild) and, if not, the potential of the specimen to survive (high in the case of rain sticks or sheared vicuna but more uncertain where bark, stalks etc. are removed);
    - The level of demand for the species and the value of commodity in trade;
    - Whether or not the harvest is continuous or regular, as distinct from once-off or occasional;
    - Whether there is added damage associated with the harvest methods (for example the case study of Guaiacum drew attention to damage caused to trees other than the harvested ones by inappropriate techniques for removing the logs);
    - Whether the harvest is for a purpose of conservation benefit to the species; and
    - Whether or not the harvest is a multiple-species one.

21. Harvest information is always easier to obtain than biological information and harvests can be regulated so this is perhaps where there is most scope for improving the rigour of the NDF process.

22. Other factors also need to be taken into account as far as possible, including:

    - Likely extent of illegal trade or non-traded off-take;
    - Habitat degradation and loss;
    - The effect of pollution;
    - Whether or not removal of the species in the jurisdiction to which the Non-detriment Finding applies will have implications for the species elsewhere in its range (e.g. for shared fish stocks or migratory birds);
    - Competition from invasive alien species;
    - Disease, weather incidents etc.; and
    - Risks associated with climate change.

23. It should be noted that, in the case of fish species, the working group concluded that all those currently listed on Appendix II are intrinsically high risk but that there may still be scope for positive Non-detriment Findings.

24. A number of the working groups developed decision trees to help scientific authorities to undertake risk analyses and to facilitate rapid Non-detriment Findings for low-risk situations, as well as to provide for feedback. One way in which the outcome of this workshop could be taken further is to determine to what extent the decision trees may be merged, if they do not reflect intrinsic differences in the nature of the taxonomic groups discussed.

Regulation of the harvest

25. It was considered that positive or conditionally positive Non-detriment Findings could be made with more confidence if there were measures in place to control the harvest. These could include:

    - Quotas;
    - Limited entry to the harvest (i.e. licensing of harvesters, restrictions on fleet size, rights-based harvest etc.);
    - Size limits (e.g., diameter at breast height in the case of timber species);
    - Differential harvest between sexes;
    - Effort controls;
    - Time/ area closures, including the establishment of protected areas;
    - Gear restrictions (in the case of fisheries, these could reduce by-catch and take of undersized specimens, while for timber species similar considerations would apply to best practice logging techniques); and
    - Restricting harvest to less vulnerable stages of life cycle.

26. Ideally, these should be incorporated into a management plan.

Monitoring and adaptive management

27. Monitoring and feedback were considered essential. Again, there are varying levels of rigour and confidence. At the very least, Scientific Authorities can monitor harvest-dependent data, such as effort measurements and trade data. However, greater rigour can be achieved by more detailed monitoring regimes. The highest level of confidence includes direct monitoring of harvest and repeat surveys.

28. Monitoring should, in turn, facilitate adaptive management of the resource, leading to an increase or decrease in the off-take. In this way, Non-detriment Findings become an iterative process, with the level of confidence continually improving.

29. It was important to note that, even with limited information, Non-detriment Findings could easily be made in the case of appropriate harvest methods that focus on more resilient species. With even minimal monitoring, the quality of data and the skills of the SA staff would improve over time.

Identification of the specimen

30. This is not an "open and shut" issue in all cases. Some of the working groups drew attention to uncertainty as to whether or not the specimen does, in fact, belong to the species indicated on the permit application. This raises verification and enforcement issues, as well as uncertainty as to the real detriment or otherwise of the trade. Similarly, there is real taxonomic uncertainty in some groups that can impede the making of a Non-detriment Finding. These issues were raised primarily with respect to certain plants, reptiles and coral species.

Origin of the specimen

31. While we tend to think of Non-detriment Findings in respect of wild-taken specimens, they also arise in respect of specimens that are:

    – Captive bred or artificially propagated,
    – Ranched and other captivity-based production systems; or
    – Introduced outside their native range.

32. Once again, there are verification issues to be considered. Even when these are resolved, the Scientific Authority must take into account factors such as:

    – whether or not the species also occurs in the wild in the same country;
    – the effect of removal of founder stock; and
    – the effect on in situ conservation of any enhanced production facility.

33. The birds working group developed a decision tree to assess these issues insofar as they are relevant to birds.

Capacity building and information sharing

34. The need to share information arising from or leading to Non-detriment Findings was discussed. In some circumstances there are valid reasons for not publicising information relating to individual Non-detriment Findings (e.g. in order not to draw attention to a site for a rare species or in order to protect privacy). However, otherwise there should be a spirit in favour of information sharing and publication wherever possible. This would open the process to peer review and thus improve its rigour. The need to preserve institutional memory in CITES authorities was a further reason for recording the basis for Non-detriment Findings. The need for Scientific Authorities to collaborate in making Non-detriment Findings on shared populations has already been noted. The Secretariat could consider hosting such information on its website.

35. It was also suggested that communication between Scientific Authorities and other wildlife management authorities should be improved. For example, forestry and fisheries harvests are often overseen by different departments from those where the primary CITES authorities are located. Furthermore, in setting domestic harvest regimes for species that were likely to be exported, national or sub-national wildlife management bodies should consult with the relevant Scientific Authority, in order to ensure that permits were not issued to harvest species for which export permits might later be refused.

36. Capacity building was also raised by most groups as a crucial issue. The workshop itself was considered a step towards improving capacity. It was also recommended that Scientific Authorities should exchange relevant information and experience on species that they share in order to enhance capacity. Existing bilateral and multilateral initiatives to improve capacity in range States were noted and further such initiatives were encouraged.

37. It was also noted that there are a number of readily available resources. The IUCN guidelines remain the most comprehensive single resource:
http://data.iucn.org/themes/ssc/our_work/wildlife_trade/citescop13/CITES/guidance.htm.
Scientific Authorities were also encouraged to consult the IUCN Red List (http://www.iucnredlist.org/) and the IUCN-SSC Specialist Groups, and to use the Regional Directories of CITES experts developed by the Animals and Plants Committees.

38 There are also resources in respect of certain species groups. CD material is available on a range of CITES plant issues, while there are also online facilities for certain species groups, such as seahorses. FAO and other fisheries bodies have a range of material available in respect of commercially exploited aquatic species, while the BirdLife International database is also a significant resource. These were just a few of the examples highlighted in the workshop.

39. Another recommendation was to use the information generated by past reviews of significant trade in Appendix II species and by the periodic reviews of the Appendices.

40. The need to continue research and information gathering on listed species that are in trade was also noted. Research institutions, including universities, should be encouraged to use such species as subjects of research.

C. Recommendations

41. CoP14 charged the workshop with identifying methods, tools, information and expertise to improve the making of Non-detriment Findings. These are highlighted in the working group reports and summarised in the preceding sections (see Annex 3 for Working Group Summary Reports). Case studies, presentations and working groups full reports can be consulted on the event web page:
http://www.conabio.gob.mx/institucion/cooperacion_internacional/TallerNDF/taller_ndf.html

42. The workshop was also charged with reporting to the Animals and Plants Committees.

43. CITES Scientific Committees may wish to consider:

- Creating an email working group of both Committees to identify ways and means to refine the outcomes and expand the results of the workshop and report to CoP16;
- Reviewing WG full reports and developing documentation that could assist Scientific Authorities in the making of Non-detriment Findings.
- The issues of capacity building, especially with regard to further options for research, use of information generated by the Committees (e.g. the review of significant trade and the periodic review of the appendices).
- How to take the outcome of the workshop into account in the ongoing evaluation of the review of significant trade.
- Drafting a Resolution which, while acknowledging that the making of Non-detriment Findings is primarily a matter for the Parties, could also draw attention to the outcomes of the workshop and the reference manual to encourage Parties to take these into account while making Non-detriment Findings.

D. Acknowledgements

44. NDF Workshop Organizers would like to thank sponsors for all their kind support: CONABIO, DGVS-SEMARNAT, CONANP, CONAFOR, European Commission, NOAA, USFWS, ITTO, The British Embassy in Mexico, CITES Secretariat, WWF, Safari Club International Foundation, SSN, TRAFFIC and Humane Society International. Also, we would like to thank all members of the Steering Committee, co-chairs, case studies writers and presenters, support team and all participants for their enthusiasm and hard work, which made this workshop possible and successful.

WORKSHOP STEERING COMMITTEE COMPOSITION

Member		Party/Organization
1	Adrianne Sinclair	Canada
2	Beatrice Khayota	Kenya
3	Colman O'Criodain	WWF
4	Carolina Caceres	Canada
5	David Morgan	CITES Secretariat
6	Greg Leach	Australia
7	Hesiquio Benítez Díaz	Mexico (Chair)
8	Henk Eggink	European Commission
9	Holly Dublin	IUCN/Species Survival Commission
10	Jorge Hernández	Costa Rica
11	José Joaquín Calvo Domingo	Costa Rica
12	James Compton	TRAFFIC International
13	Luis Calderón	Guatemala
14	Milena Sosa Schmidt	CITES Secretariat
15	Margarita Clemente	Plants Committee Chair
16	Mercedes Lasso	Spain
17	Peter Pueschel	IFAW
18	Rosemarie Gnam	USA
19	Rick Parsons	Safari Club International Foundation
20	Rodrigo Medellín	Mexico
21	Ronald Orenstein	IFAW- SSN
22	Sonja Meintjes	South Africa
23	Solomon Kyalo	Kenya
24	Sue Lieberman	WWF
25	Simon Nemtzov	Israel
26	Teresa Telecky	Species Survival Network/Humane Society International
27	Tony Mudakikwa	Rwanda
28	Thomasina Oldfield	TRAFFIC International
29	Thomas Althaus	Animals Committee Chair
30	Victoria Lichtschein	Argentina
31	Will Travers	Born Free Foundation/SSN
32	Noel McGough	United Kingdom

INTERNATIONAL EXPERT WORKSHOP ON CITES NON-DETRIMENT FINDINGS ATTENDANTS

NAME		COUNTRY	INSTITUTION	GROUP(S)*
1	Adrián Reuter	Mexico	TRAFFIC North America	ST, WG6
2	Adrianne Sinclair	Canada	Canadian Wildlife Service Environment Canada	SC, AC, WG2
3	Alejandra García Naranjo	Mexico	CONABIO	AC, ST, WG1
4	Alejandro Jaques	Mexico	CONAFOR	ST, WG1
5	Alison Rosser	UK	Durrell Institute for Conservation and Ecology, UK	P, WG5
6	Andrew Vovides	Mexico	Institute of Ecology, Mexico	WG3
7	Anita Varghese	India	Keystone Foundation	WG3
8	Annette Bennett	Spain	Translator	ST
9	Anthony Montgomery	USA	Hawaii Department of Land and Natural Resources/ Division of Aquatic Resources	WG9
10	Apu Suharsono	Indonesia	Director of Research Center for Oceanography, Indonesian Institute of Sciences (LIPI)	WG9
11	Beatrice Khayota	Kenya	National Museums of Kenya, Scientific Authority for Kenya	SC, WG4
12	Cecilia Lougheed	Canada	Fisheries and Oceans Canada, CITES SA	WG5
13	Colman O'Criodain	Switzerland	Species Programme, WWF International	SC, AC, WG2, WG3, WG4
14	Cuauhtemoc Tejeda	Mexico	SEMARNAT	ST, WG1
15	Danna Leaman	Canada	IUCN/SSC Medicinal Plants Specialist Group (MPSG)	WG2
16	David Fraser	Canada	Ministry of Environment, British Columbia	WG5
17	David Morgan	Switzerland	CITES Secretariat	SC, P
18	David Newton	South Africa	TRAFFIC East Southern Africa	WG2
19	Dennis Kyabwasi Ikanda	Tanzania	Tanzania Wildlife Research Institute (SA)	WG5
20	Domingo Hoces Roque	Peru	Consultant in wild camelids Vicugna and Guanaco (GECS-IUCN)	WG5
21	Donald Stewart	USA	State University of New YorkCollege of Environmental Science and Forestry	WG8
22	Dora Ingrid	Costa Rica	Universidad Nacional CITES SA	WG1
23	Elsabe Swart	South Africa	Northern Cape Nature Conservaiton	WG3
24	Emily Wabuyele	Kenya	East African Herbarium, National Museums of Kenya	WG3
25	Enriquena Bustamante	Mexico	Institute of Ecology, National University of Mexico	WG3
26	Fatima Venegas	El Salvador	Consultant of the Centralamerican Commission for the Environment and Development	WG6
27	Fernando Ugarte	Greenland	Greenland Institute of Natural Resources	WG5
28	Gabriela López	Mexico	CONABIO	AC, ST, WG5

NAME		COUNTRY	INSTITUTION	GROUP(S)*
29	Gael Almeida	Mexico	CONABIO	ST
30	Glenn Sant	Australia	TRAFFIC International, Global Marine Programme Leader	WG8
31	Glynnis Roberts	USA	National Oceanic and Atmospheric Administration (NOAA)	WG9
32	Greg Leach	Australia	Executive Director, Biodiversity Conservation	SC, AC, WG2
33	Guillermo Muñoz Lacy	Mexico	CONABIO	ST, WG9
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88	Simon Nemtzov	Israel	Israel Nature and Parks Authority	SC, AC, WG7
89	Siti Prijono	Indonesia	The Indonesian Institutes of Sciences	WG6
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97	Uwe Schippmann	Germany	Bundesamt fuer Naturschutz	WG1, WG2, WG3
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*__SC__ = Steering Committee, __AC__ = Academic Subcommittee, __ST__ = Support Team, __WG1__ = Trees, __WG2__ = Perennials, __WG3__ = Succulents and Cycads, __WG4__ = Geophytes and Epiphytes, __WG5__ = Mammals, __WG6__ = Birds, __WG7__ = Reptiles and Amphibians, __WG8__ = Fishes, __WG9__ = Aquatic Invertebrates.

WORKING GROUPS SUMMARY REPORTS

Trees working group (WG 1) – Summary report

The Trees Working Group elaborated essential **principles**, **procedures**, and **elements** that Scientific Authorities should consider when making Non-detriment Findings (NDF) for the taxa.

Principles can be summarized as follows: Since an Appendix II listing recognizes that international trade at current rates or patterns has placed the species at risk of harm, the Scientific Authority is charged with verifying that traded volumes or products do not cause harm to the species within the range State. The central issue that must be addressed is whether the anticipated impact of current or proposed harvests on species' population status will be non-detrimental to the species in its role in the ecosystem. The extent to which species population status has been described and is understood determines the scale, quality and certainty at which NDFs can be made. Sufficient biological information for Appendix II tree species exists to propose harvest and management systems where population status is known. Risk associated with a negative outcome from the NDF declines as the level of understanding of population status and management systems increases.

The initial **procedure** for NDF should consider the source of specimens to be harvested, whether they originate from plantations or from wild populations. NDF for plantation-grown specimens should be straightforward. Harvests from wild sources should be distinguished between those having non-lethal vs. lethal outcomes. Each of these outcomes implies a different approach to evaluating impacts on wild populations.

The Trees Working Group considered that the NDF process should consider five basic **elements**, and offered a description of issues, tools, and resources relating to each (see 'TreeWG_NDF.doc'). These elements and the specific objective that each addresses are as follows:

1 SPECIES DISTRIBUTION AREA (RANGE) AT RELEVANT SCALES

Characterize the species' distribution at different spatial and jurisdictional scales so that production and conservation areas can be identified.

2 POPULATION PARAMETERS AS INDICATORS OF SUSTAINABLE MANAGEMENT

Characterize species population status (standing stocks & dynamics) to provide standards for evaluating harvest impacts.

3 MANAGEMENT SYSTEMS & HARVEST RATES

With sufficient knowledge of distribution and population parameters, determine whether management systems are appropriate to species populations subject to harvest AND whether harvest levels are sustainable.

4 MONITORING & VERIFYING HARVESTS

Determine whether adequate monitoring & verification systems are in place to ensure the sustainability of harvest and to reduce illegal activities & illegal trade.

5 CONSERVATION & THE PRECAUTIONARY PRINCIPLE

Determine whether safeguards are in place to ensure that representative natural populations and phenotypic & genetic diversity represented in harvested populations are conserved.

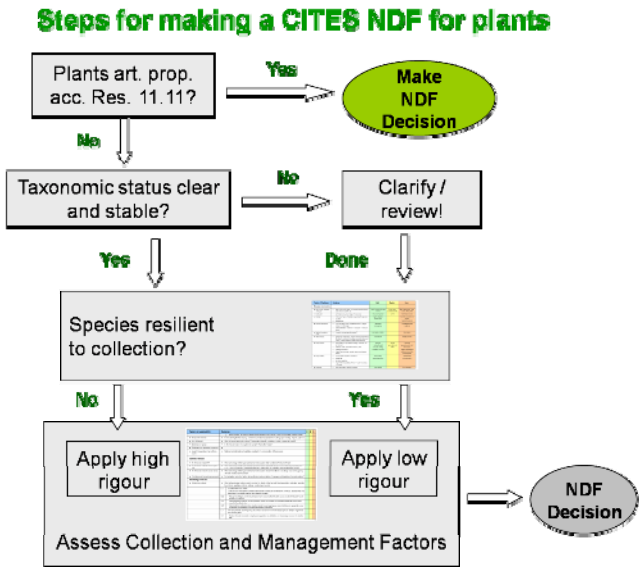
The Trees Working Group report includes Annexes indicating further resources available for this taxa, including outputs from species-specific Workshops, a Glossary, tools and expertise, and considerations for a proposed Trees Working Group website as an extension tool.

Perennial plants working group (WG 2) – Summary report

The main contribution of the perennial plants working group is a simplified process for making NDFs that is based on currently available guides such as the IUCN checklist and the ISSC MAP. Further, our group offers a method to assess the resilience of perennial plant species to collection and identifies sources, quantity, and quality of data (level of rigor) required for high and low resilient species.

The following references for making NDFs were reviewed which included, as appropriate for perennial plants,: tables 1 and 2 of the Guidance for CITES Scientific Authorities (i.e., the IUCN NDF Checklist (2002), the Cancun Workshop Case Study Format (2008); the EU-SRG Guidance Paper; the International Standard for the Sustainable Wild Collection of Medicinal and Aromatic Plants (ISSC-MAP) (2007), and susceptibility matrices published by Cunningham and Peters. The ISSC-MAP provided guidance for the factors "Management Plan" and "Monitoring Methods" through detailed criteria and indicators.

The guidance provided by the working group may apply to all CITES Appendix-II plant species (requires testing with some tree examples). The following decision tree summarizes the process.



The process indicates that an NDF decision can be made easily for artificially propagated specimens, provided that the criteria for CITES Resolution Conf. 11.11 is met, and guides Scientific Authorities to treat wild-collected specimens as wild specimens. The importance of clarifying taxonomic status of CITES-listed species is highlighted as an initial step and sources of information are identified. After the taxonomy of the species is checked, the next step is to determine whether a species is more or less resilient to collection using plant life strategy factors and population dynamic information. This guidance indicates the types of information needed and the extent of effort and data gathering necessary. This approach can facilitate making NDF decisions and in many cases can be made with the information readily available. The process helps ensure that the level of data gathering and effort is compatible with the level of species' vulnerability and therefore will result in a more confident decision. Once the level of vulnerability of a species is determined, the Scientific Authority is guided through a table of factors that affect the management and collection of the species (streamlined from the current NDF tools, i.e., the IUCN checklist and ISSC MAP), and identifies a range of data sources needed to evaluate the factors. It is expected, where possible, that greater rigor (e.g., multiple data sources, intensive field study), will be used for those species that are considered less resilient to collection. In general, Scientific Authorities will work with information that is available and seek more extensive information for species considered to be of low resilience. It is also recognized that the source of data considered most reliable will vary depending on the species and specific collection situation. For example, in some cases knowledge of population abundance gained from local harvesters may be very reliable.

The overall result is a simple guiding document of a few pages that will enable a Scientific Authority to make scientifically based NDFs for perennial plant species.

Succulents and cycads working group (WG 3) – Summary report

Although cycads and succulents have quite different life histories, the case studies focused exclusively on long-lived species of succulents, which resulted in greater convergence between the cycad and succulent case studies. There was a remarkable consistency regarding several risk factors relating to harvest and trade between the cycad and succulent species and this suggests that the grouping of cycads and succulents was not entirely artificial.

Main outcomes

– The risk assessment approach to Non-detriment Findings was useful to help focus the assessment on specific risk factors. The NDF process requires an assessment of risk at three levels, i.e. impact on the species from the trade event, the impact of harvest on the species in trade, and the impact on the ecosystem.

– It seemed to be possible to identify several factors that could be classified as low, medium, or high risk. This was based on several different elements relating to the biology of the species (identity, life history stage, population size), the source of material (artificial propagation, wild, dead) and the nature of the harvest (volumes, intensity, frequency).

– The level of confidence in the NDF involves an interaction between the availability of information and level of risk. If relatively little information is available, it may still be possible to make an NDF if the trade involves a low risk activity. However, more information is required for an NDF relating to high risk activities. A list of information required for low, medium and high risk activities was compiled.

– There was considerable consistency between cycads and long-lived succulents regarding the vulnerability of the adult stage to lethal harvest. Lethal harvest should only be considered in very abundant species or where demographic studies provide indications of offtake levels.

– Many species of cycads and succulents are threatened and listed on the IUCN Red List and this means that it is very important to apply the precautionary approach when making an NDF.

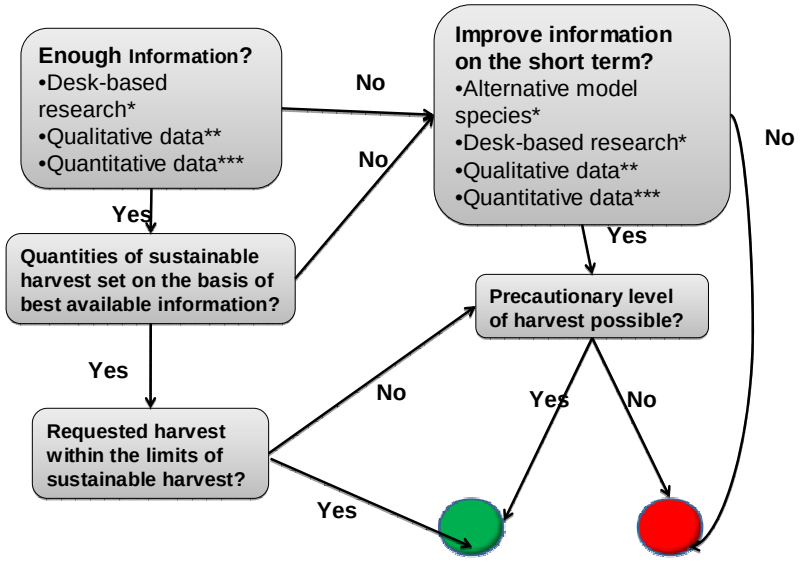
– Two of the case studies dealt with *in situ* nurseries in which seeds are extracted from the wild but contribute to habitat conservation and restoration and management of wild populations because of benefits to local communities. Such potential benefits need to be considered when making an NDF.

– Illegal trade is a significant problem with many cycads and succulents. As a result, the NDF will be affected by the level of certainty regarding the identity and source of the specimens in trade.

– An assessment of sustainable harvest may require information on both population recovery/ resilience (for lethal harvest) as well as individual recovery (for leaves, fruits, stems).

Non-Detriment Finding Process ***(***=high confidence)***

NDF flow chart from the Geophyte and Epiphyte Group



Key Points

The group concentrated on the highly traded groups Galanthus and Epiphytic orchids. WG4 developed detailed guidance on the methods most suitable for making NDFs for these plants and it is hoped that this material will form the basis for a tailored manual to be used by Scientific Authorities. High volume trade in Galanthus is restricted to a limited number of species and the trade was found to be highly suited to an adaptive management approach, using a precautionary quota, participative management and a strong qualitative science base. Continuity is at risk due to a fragile institutional memory and possible solutions were explored. The pros and cons of population modelling were detailed, and it was noted that these techniques provided new opportunities for supporting NDF's.

The issues relating to NDF's for epiphytic orchids were more complex with more and varied risk factors. Risks increased due to large harvests for local and national use, collection of whole populations, opportunistic collection of all species in habitat and damage to the host trees in the collection process. Lack of incentives may contribute to such destructive harvests. Further development of guidance is needed on the application of the CITES definition of artificial propagation and on how to make NDF's on mother plants in propagation systems. The lack of management plants and guidelines on sustainable use directly related to orchids was noted.

The development of practical hands on *in-situ* training for making NDF's for geophytes and epiphytes was a cross-cutting concern and would be vital in moving the process further.

Mammals working group (WG 5) – Summary report

The main objective of the Mammal Working Group was to identify the most important variables for making Non-detriment Findings for mammalian species. In order to achieve this, the group followed NDF Workshop Doc. 2 Output Format and extract, out of every case study, the elements to be considered when making NDFs. This was complemented with Uwe Shippmann´s document (compiling of IUCN Checklist, EU guidelines and ISSC-MAP). Then a scoring exercise was made to assign importance to the different elements.

Working Group discussions were focused on several issues, including the need for defining level of NDF covering (local population, national or regional), harvest *versus* trade-driven harvest, role of the species in the ecosystem, addressing all types of removal when making decisions and the idea of NDF as a matter of judgment.

The working group then developed a decision tree (see full report) where the members agreed on how to address NDFs that involve species at low, high and unknown risk, based on a rapid-assessment *versus* detailed-data-collection approach.

The first step of the above mentioned decision tree is a preliminary assessment looking at the risk level harvest would imply for the species. A series of questions regarding general population characteristics (distribution, abundance, conservation status and harvest likeliness of impact) are considered in this regard (see full report).

Relevant elements identified for making NDF for mammalian species are basically related with population size, structure, trend, and range, segment and proportion of the population taken and extent of monitoring of all these factors through time and space. It was also agreed to include a new section to cover type and magnitude of threats.

Concerning methods to obtain and measure those elements, the group will continue its work to compile relevant sources of information where they can be found and consulted (publications, databases, tools, etc.), although some basic lines can be found on WG full report. Ways to make this information available for Scientific Authorities in the near future will be assessed. Adaptive management was agreed as the main approach to be adopted for future NDF making, as it will allow continuous improvement of Scientific Authorities future work.

With the aim of assessing quantity and quality of information, before making any decision, the group considered peer review, technical assessment and expert opinion as the best paths to achieve it.

Risk assessment, as well as expert assessment and modeling, was considered essential in order to integrate information as per taking the final decision, always considering the precautionary principle beneath CITES functioning and implementation.

Problems when making NDF were pointed out during discussions, and lack of information, accessibility to it, need for capacity and funding were the most recurrent topics in this matter.

Lots of recommendations were made by members of the working group (see full report), although cooperation with other Parties or regions, taking into account all sources of mortality and adopting adaptive management where the main ones.

Future work includes building a glossary of terms, the compilation of helpful references and data sources and a characterization of vulnerability for mammal species (risk level harvest) based on previous exercises already developed.

Birds working group (WG 6) – Summary report

Risk analysis

The group first developed a decision tree to categorize the origins of specimens proposed for trade. The group also developed, as a preliminary step towards making an NDF for birds, a standardised framework for assessing the following risk categories: vulnerability of the population; general threats to population; potential impact of proposed harvest; and management of harvest. Testing the framework on sulphur-crested cockatoo in New Zealand, saker falcon, Java sparrow, crestless fireback pheasant, African grey parrot and yellow-naped amazon reinforced the value of this approach.

Assessment tools

The case studies illustrated the need for access to practical methods of population and harvest assessment for a large range of species, countries and situations, and developed tables for assessing which method might be appropriate in each case. Techniques for population survey and monitoring were assessed in categories of complexity according to the study aim, field data required, situational suitability, availability of resources and expertise, possible field methods, strengths and weaknesses, example species and key references. Similarly, harvest assessment methodologies were assessed according to scope, data required, methods, stage of trade being assessed, strengths and weaknesses, other benefits and the impact of illegal trade.

Decision framework

Within an overall framework of considering origin of specimens, gathering information, assessing risk and analysing the information, a decision tree was developed to help in actually making an NDF. This allowed consideration of whether enough information is available and if so, whether the requested harvest is within sustainable limits, consideration of other factors affecting the population and conditions that might be placed on the trade to render it acceptable.

Recommendations

Recommendations focused on: Examination of past Significant Trade Reviews to identify technical issues and potential difficulties; Access to advice and data on relevant biological information, e.g life history; The development of technical advice on particular approaches and methods for population assessment and measuring the effects of harvest and trade; Encouraging bilateral support in these matters; Recognising that addressing many of these issues may have significant other benefits to the species concerned and their ecosystems.

Reptiles and amphibians working group (WG 7) – Summary report

Main points of the outcome

The Reptile and Amphibian WG highlighted that these species exhibit a wide variety of characteristics of biology and life history, and are subject to a wide variety of production and utilization systems and practices; these are summarized in the Appendix.

The R&A WG considered that the NDF process needs to be practical and also have various degrees of rigour as appropriate. The NDF process needs to begin with a risk assessment process, to guide the different degrees of subsequent analysis of information. The group felt it was important to produce a proposed decision tree to guide a SA to making a NDF or rejecting the proposal. The proposed decision tree developed by the WG consists of a two-step process, described in detail in the Appendix. First, a Provisional Risk Assessment (PRA) considers the intrinsic vulnerability of the species or population, the general threats acting upon the (National) population, and the potential impact of the proposal, and leads to categorization of a proposal to export as low, medium or high risk.

A proposal ranked as 'High Risk' is rejected as detrimental. A proposal emerging as 'Low Risk' requires documentation of the elements supporting the low risk evaluation, and low-level monitoring of utilization and trade of the species. Proposals emerging from the PRA as 'Medium Risk' progress to the second step of the process. Step Two of the process involves rigorous analyses of available data to determine impact of past harvest and potential impact of proposed export, and determination of the extent and appropriateness of monitoring in place. Depending on the results of this analysis, and the rigour of the data available, an evaluation as non-detrimental or detrimental is arrived at and documented.

The WG concluded by highlighting general issues to improve implementation of the NDF process:

– The need to develop practical, scientifically acceptable monitoring programs, and to avoid incompatible methodologies which prevent consistent long-term assessment.

– The need to summarize and distribute field research methodologies.

– The desirability of establishing a repository of NDFs that have been made, so that they can be consulted by others for comparison and capacity building.

– The desirability of setting up web-based tools and information management systems where SAs can easily access pertinent information.

Fishes working group (WG 8) – Summary report

The Fish Working Group (WG) considered five case studies produced for the workshop: seahorses *Hippocampus* spp., humphead wrasse *Cheilinus undulatus* from Indonesia, sturgeons from the North west Black Sea and lower Danube river, *Arapaima* spp. from Brazil and eel *Anguilla anguilla* from Sweden. An extra species group was considered for sharks given the presence of experts in the group. After examining case studies in detail the WG considered each case study against the areas of information on the species, harvest, management measures and monitoring methods. The group further considered the logical steps to be taken when making an NDF. A flowchart was constructed reflecting the group's view on how NDF would be made on the short term and on a rolling basis to review the integrity of management and information associated with a species (**Annex 1**). An attempt to prioritize the critical elements to be taken into account to complete a NDF for each species groups was made (**Table 1**). In addition, the WG considered the main problems, challenges and difficulties found in the elaboration of NDF, and reviewed the available references for an NDF formulation.

In examining the way in which an NDF would be considered for fish species, the WG considered some underlying assumptions that would support the conclusion that the general guidelines constructed by the WG were true to life:

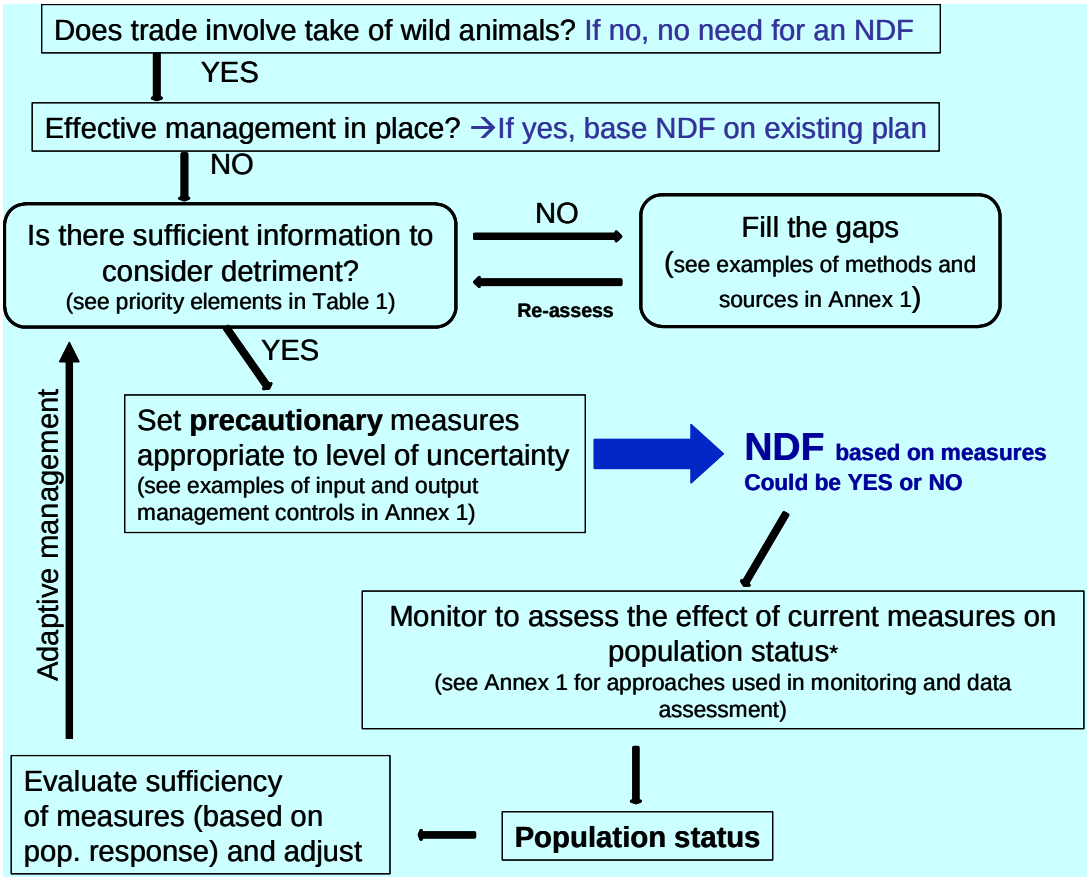
– Fisheries management has a long history of trying to understand how you can best manage the harvest of fish so it is not a new concept;
– Many training manuals and databases exist to support those making NDF;
– In terms of risk, fish listed on Appendix II of CITES have already been concluded by Parties to be vulnerable and trade is a particularly important threat;
– More uncertainty requires more caution and leads to more monitoring; and
– Experts, who understand the use of fisheries management tools, are available to Scientific Authorities.

The WG concluded the following were essential to enable the NDF process for fish:

– A need to consider all sources of significant mortality affecting species in trade
– A need to consider whether establishing harvest/export quota is enough to achieve conservation goals
– Collaboration between Scientific Authorities and fisheries experts
– Transboundary migrants and shared stocks require regional NDF cooperation
– Be cautious with fisheries dependent data, verify when possible
– When possible, base NDF on both fisheries independent and dependent information/data
– Need techniques and legislation to distinguish among farmed, captive bred and wild individuals
– Management on which NDF is based should employ principles of adaptive and participatory management
– Parties need to report to Secretariat methods by which NDFs are being made on an annual basis to enable transparency, learning between NDF processes and to ensure that fish species which range beyond the boundaries of one State are accounted for by all range States in there NDF processes.

Annex 1

Flowchart describing the logical steps for making an NDF for fish species in trade



* Level/frequency of monitoring depends on life history, level of interaction and uncertainty (Annex 1 includes approaches for evaluating the quality and uncertainty in data).

Table 1. Biological characteristics, harvest and other impacts to be considered when making an NDF. All significant sources of mortality should be considered when making an NDF, including from legal and illegal direct take, bycatch, non-harvest related mortality and due to habitat loss.

Information needed	For what
which species	taxonomy
where (location, depth, habitat)	spatial distribution; habitats
when (time of year)	temporal distribution
how many	abundance (preferably over time)
size/age stucture	seize/age distribution; growth; mortality
sex (male, female, juvenile)	sex ratio
mature (yes/no)	size/age at maturity; maturity schedule
all significant sources of mortality	make NDF in context

Aquatic invertebrates working group (WG 9) – Summary report

The group noted that while CITES-listed aquatic invertebrates had typically been subject to harvests, the nature of some harvests had changed over time – evidenced by the coral trade where collection of dead coral for curios has shifted to live specimens for the aquarium trade. Some significant problems were identified for this group of organisms, especially in relation to the identification of specimens to the level required by CITES, taxonomy and nomenclature issues and addressing multi-species fisheries. After considering various factors that might affect whether any harvests for international trade were detrimental or not, the group suggested that a cyclic adaptive management approach was required to manage harvests – highlighting appropriate risk assessment and feedback mechanisms.

The group suggested a suggested cyclic 4 step process involving the following sequential steps:

– Risk assessment
– Regulating harvests
– Record harvests and population responses
– Review, revise and refine measures and risks

Risk assessment. The group considered this an essential first step, and noted the following issues, amongst others, would inform any assessment of risk, namely: the proportion of the population subject to harvest (whether for domestic or international use, legal and illegal); the value of the commodity in trade; the drivers for the trade (is trade likely to be one-off or ongoing); governance of the resource (if any and whether this is robust or weak); degree of tenure / ownership of the resource and incentives for stewardship; whether the harvested population is derived from wild harvests or a form of captive production system; the biological characteristics of the population, especially its productivity and resilience to harvest; whether stocks are shared (between or within countries) and subject to harvests across their range; external factors (hurricanes, climate change, etc.); and whether the harvest has wider ecosystem impacts on non-target species or habitats and the services they provide. The group recommended that the rationale for risk assessment (whether a qualitative or quantitative) be documented and a review period be determined (if required).

Regulating the harvest. The group recognised the range of standard fishery measures available and noted the following as a toolbox of measures that might be used to ensure harvests were not detrimental. However, they also noted that where non-detriment could not be achieved then restrictions or closure of fisheries and exports might be required. Any measures being applied should be proportionate to the risk and to available capacity (with assumption that the greater the risk the more precautionary the harvest), and that measures are not mutually exclusive. Such measures include limiting harvests spatially or temporally, or by controlling harvest effort and methods; the use of harvest or export quotas; size limits on specimens being taken; setting reference and threshold points; and shifting from wild harvests to other production methods. The need for co-management where relevant, involving the public and other stakeholders, and the need to collaborate over the management of shared stocks were all key factors to address.

Record harvests, trade and population responses. Monitoring the impacts of any harvests through fishery dependent or independent data, trends in populations, shifts in markets and the impact of any external factors is essential to inform any future adjustments to management measures. Regardless of the sources of any data, it is vital to understand both the limitations and the confidence placed in any results. Potential sources of data include CITES trade data, surveys of the resource, local and expert knowledge, landing information (using appropriate conversion factors) and changes in prices or demand for specimens.

Review, revise and refine. Information from monitoring, risks and the effectiveness of measures should be reviewed, with management measures refined or revised as appropriate. Such reviews should ensure that there is still confidence in the trade being non-detrimental before permitting. Gaps in knowledge should be identified and addressed. The original risk assessment should be re-visited and this cyclic adaptive management process continued.

When is non-detriment achieved? Determining when non-detriment is achieved is not a static process but is likely if population trends (or indicators of these), despite harvests, are positive or stable (within defined thresholds) or measures have been set in place to achieve this. Any risks that have been identified should be being effectively mitigated and addressed.